tions an excellent guide to the relevant literature. The book benefits from the inclusion of a large body of marine geological and geophysical data assembled over the past 20 years. These data were not available for the 1968 book by Brown, Campbell, and Crook that covers similar subjects.

The volume contains contributions by the editor and 13 other scientists, most of whom are colleagues of his. The book is divided into five major sections, each of which is further divided into subsections. The logic behind the book's structure is not always apparent, and the reader can become lost when similar subjects and figures appear in different parts of the book. Section 1 performs the valuable service of defining the geological time scale used throughout the book. Section 2 is intended to deal with Australia's global setting, both now and in the past, but "regional" seems to me more accurate than "global." A summary by Embleton of paleomagnetic data is valuable for providing an absolute frame of reference for the region's paleogeography. In addition, there are summaries of past climates and environments by Williams and by Ouilty and of paleobiogeography by Talent. Section 3, on the structure of the Australian lithosphere, is rather skimpy, mainly because available deep crustal seismic data are treated briefly. A short contribution by Wass outlines an important controversy over the seismic and petrologic definitions of the crustmantle boundary in eastern Australia. Section 4, entitled Morphotectonics of the Australian Platform and Margins, describes in detail the relations among topography, tectonic activity, and volcanism that are observed in several morphotectonic provinces of Australia. The discussion of the evolution of the eastern Australian highlands contains some controversial statements concerning possible links between periods of uplift of the highlands, enhanced volcanic activity, and increases in global sea level. Section 5 describes the evolution of the Australian region in terms of four tectonic regimes that span the Late Precambrian to the present. Section 6 provides a visual summary by means of key paleogeographic figures from preceding sections.

The book tries to deal with both regional and thematic subjects. The authors are more successful when providing a qualitative account of the region's tectonic history as interpreted from the cited data sources than when dealing with major thematic subjects such as the physical processes associated with rifting. The East African rift analogue of Australia's rifted margins cited in section 4 does not do justice to quantitative thermomechanical models of passive continental margin and sedimentary basin development

that have been examined over the past several years. I am surprised that New Zealand geology is not considered, as it was in the book by Brown, Campbell, and Crook. The present authors consider New Zealand to lie "down dip" from Australia. This view is problematic, because the team undertaking the southwest Pacific basement correlation program found correlations between the Lower Paleozoic of both areas, and the Mesozoic reconstruction of the two land masses is not in dispute.

A highlight of global interest to emerge from the book is that although the eastern margin of Australia was associated with plate convergence and island arc activity from mid-Cambrian to mid-Cretaceous time very little evidence has been obtained for accretion of exotic or allochthonous terranes in the manner described for western North America. Even though the Paleozoic history of eastern Australia is punctuated by regional orogenic movements, compressional deformation, and the relocation of the presumed convergent plate boundary, these events so far cannot be clearly linked to the arrival of buoyant material at trenches that faced the Pacific Ocean.

In general, the book is a worthy successor to the earlier books on Australia's tectonic history. The 246 figures in the book are mostly time-space stratigraphic diagrams and maps showing geology or paleogeography, and it is commendable that the authors use the same map projection throughout the book

> JEFFREY K. WEISSEL Lamont-Doherty Geological Observatory, Palisades, NY 10964

Books Received

Children's Peer Relations. Issues in Assessment and Intervention. Barry H. Schneider, Kenneth H. Rubin,

Intervention. Barry H. Schneider, Kenneth H. Rubin, and Jane E. Ledingham, Ed. Springer-Verlag, New York, 1985. xxii, 281 pp. \$37. Chorological Phenomena in Plant Commu-nities. R. Neuhäusl, H. Dierschke, and J. J. Bark-man, Eds. Junk, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). iv, 270 pp., illus. \$75. Ad-vances in Vegetation Science, vol. 5. Reprinted from Vegetatio, vol. 59. From a symposium, Prague, April 1982.

Cladistic Theory and Methodology. Thomas Duncan and Tod F. Stuessy, Eds. Van Nostrand Reinhold, New York, 1985. xvi, 397 pp., illus. \$47.50. Benchmark Papers in Systematic and Evolutionary Biology series. A Hutchinson Ross Publication.

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CA, Jan. 1985. Cocalne Use in America. Epidemiologic and Clini-cal Perspectives. Nicholas J. Kozel and Edgar H. Adams, Eds. National Institute on Drug Abuse, Rockville, MD, 1985 (available from Superintendent of Documents, Washington, DC). viii, 232 pp., illus. Paper, \$5 National Institute on Drug Abuse Research Monograph 61. Based on a conference, Bethesda, MD, July 1984. Heavy Metals in Water Organisms. J. Salánki, Ed. Akademiai Kiado, Budapest, 1985. xvi, 440 pp., illus. \$45. Symposia Biologica Hungarica, vol. 29. From a symposium, Tihany, Sept. 1984. High-Temperature Brazing in Controlled Atmos-pheres. G. Sheward. Pergamon, New York, 1985. xii, 109 pp., illus. Paper, \$8.50. Pergamon Materials Engi-neering Practice Series. Hillselong Stability and Land Land Lang. C. Sidla

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Mollusks. Notes for a Short Course. D. J. Bottjer, C. S. Hickman, and P. D. Ward, organizers, T. W. Broadhead, Ed. Department of Geological Sciences, University of Tennessee, Knoxville, 1985. iv, 306 pp., illus. Paper, \$9. University of Tennessee Department of Geological Sciences Studies in Geology 13.
More than the Grains. Participatory Management in the Philippine Rice Sufficiency Program 1967–1969.

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Wave Heating and Current Drive in Plasmas. v. L. Granatstein and P. L. Colestock. Gordon and Breach, New York, 1985. x, 509 pp., illus. \$94. Werner's Syndrome and Human Aging. Darrell Salk, Yoshisada Fujiwara, and George M. Martin, Eds. Plenum, New York, 1985. xvi, 656 pp., illus. \$97.50. Advances in Experimental Medicine and Biology, vol. 190. From a seminar Kohe Japan Dec 1982. 190. From a seminar, Kobe, Japan, Dec. 1982.

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BOOK REVIEWS 1453

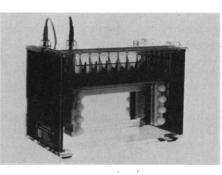
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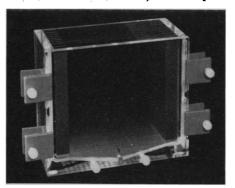
chilled, and because gels are cooled evenly on both sides, heat-labile proteins are protected in non-denaturing gels run in the SE 600. The SE 600 was originally designed for PAGE applications. But it has proved to be a far more versatile instrument. It can be used to run agarose gels, for example. With Hoefer's frosted glass plates and porous polyethylene transverse spacers, the SE 600 can run agarose gels up to 6.0 mm thick in concentrations as low 0.5%. And agarose gels can run fast, with no danger of overheating. The unit can even maintain a constant temperature at the high power settings IEF runs require. The SE 600's unique design will likely suit it for even more laboratory applications as research using electrophoretic techniques continues to expand.

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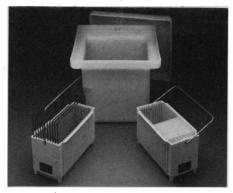
samples. It can run up to four gels—with as many as 28 samples each—in as little as 45 minutes. The SE 650 and SE 660 are particularly suited for running SDS gels. Because of even heat distribution, the gels run smile-free. Resolution is excellent. For researchers who work primarily or solely with SDS gels, the 16 cm SE 650 is a cost-effective alternative to the SE 600. And for those who need more separation and greater resolution than they can get on 16 cm gels, the longer 24 cm SE 660 is just the right unit.

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• The SE 100 Plate Mate plate washing system eliminates the need to wash plates individually. It also provides safe storage that should greatly reduce the number of chipped or broken plates in a lab. Each Plate Mate plate holder holds 10 standard glass plates 18 cm wide or 20 lantern slides 8.3 cm high. Filled plate holders are immersed in chemical cleaning solution in a



polypropylene tank. A complete Plate Mate set includes two holders and one tank with lid.

• Redesigned Clamps for Hoefer's SE 600 series units have holes in the bodies to accommodate new longer cam shafts. This design improves sealing and eliminates wear on cams. In addition, new cams also have larger handles to make them easier to turn.

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Products & Materials

Mass Spectrometer

The MAT-90 is a magnetic sector, reverse geometry, double-focusing mass spectrometer. It embodies advances in sensitivity, mass range, ion optics, resolution, hardware configuration, and software improvement. At 20 percent of full accelerating voltage of 5 kV (mass range to 17,500 atomic mass units), it is as sensitive as instruments with much lower mass ranges. The ion optics system (patent applied for) has an analyzer and virtually no image error in x, y, and zdirections; ion transmission of 70 percent; ion acceptance angle of 17 millirads; and a mass dispersion to magnification ratio of 0.33. This yields sensitivity at high mass for biotechnology applications and sensitivity at low mass for trace analyses. Finnigan MAT. Circle 562.

Pocket Calculator with Display

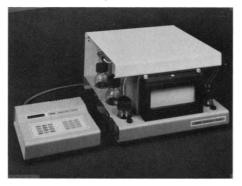
Model FX-7000G is a scientific calculator that is capable of displaying graphs or numerical equations at a keystroke. Graphs are displayed on a 2.17 by 1.5 inch liquid crystal panel. Changes in numerical value may be displayed as continuous graphic fluctuations. Two or more function equations may be displayed simultaneously. Several equations may be combined to form a single graph. Overall and local maximum and minimum points, intersection, and approach of different functions and other features may be shown by operation of the keyboard. Casio. Circle 538.

Mantles

Labsafe mantles contain no metal components; they are manufactured from ceramic fiber materials. They overcome the problem of spillage due to overheating or flask breakage and avoid inherent electrical hazards and damage. The user may not touch the heating element because it is totally encapsulated. The ceramic construction renders the mantles safe to handle while they are in operation. Spillage may be rinsed off with water and will not penetrate the device. Lab-Line Instruments. Circle 539.

Chromatography System

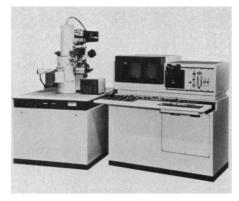
The Automated Multiple Development system provides controlled reproducible chromatographic conditions. A microprocessor allows the user to program elution gradient and thus separate substances with widely different polarities. Development



with a single solvent or mixture is also possible. Stepwise development focuses each component in a narrowband. Resolution is improved and the number of components that may be separated is increased. The system's design renders it suitable for routine chromatography and for research applications. CAMAG Scientific. Circle 534.

Scanning Electron Microscope

Model S-900 uses a high-stability, beammonitored, patented field emission source. The combination of TEM-type optics, a side-entry goniometer stage with air-lock



specimen exchange, and an ultraclean vacuum system yields high resolution. Resolution at 30 Kv is 8 Å. The S-900 field emission scanning electron microscope is designed for research applications. NSA Hitachi. Circle 536.

Personal Computer

The IBM RT series comprises a line of high-speed 32-bit technical work stations for scientific applications. The RT series is based on the RISC (reduced instruction set computer) architecture. This effects improved processing power, virtual memory, and virtual addressing capabilities. The 32bit microprocessor chip is supported by a memory management unit (another new chip) that provides access to over a trillion characters of virtual memory. The operating software is called Advanced Interactive Executive which combines UNIX with the memory management chip for high-speed operations requiring extensive memory. The RT is compatible with PC AT as well. Accessories include all-points-accessible display units, a new eight-color plotter, and a backup tape drive for personal work stations. The RISC architecture permits basic, often used commands to be executed in a single machine cycle, about 170 billionths of a second. IBM. Circle 563.

Literature

Automation for X-ray Diffraction and Spectrometry presents design specifications and applications of the equipment and techniques for research. Dapple Systems. Circle 555.

Almanac for Computers, 1986 is a guide for computing astronomical and navigational data with small computers and calculators. Cost is \$3.50. U.S. Government Printing Office. Circle 556.

Laboratory Supplies and Equipment offers items for pH measurement, spectroscopy, thermometry, refrigeration, and water and salt analysis among others. Markson Science. Circle 557.

Biotechnology Products catalogs a complete line of separation media and equipment including chemicals, instruments, and accessories for liquid chromatography, electrophoresis, and cell separation. Pharmacia, Laboratory Separation Division. Circle 558.

Labware features over 400 plastic labware products. Product specifications and characteristic chemical resistances and physical properties are detailed. Nalge. Circle 559.

HPLC and Electrochemical Detection are treated in a description of the Coulochem detector and its accessories and applications. ESA. Circle 560.

Infrared describes products for reflective and dispersive analyses of solid, liquid, and gaseous samples. A brief review of the architecture of the infrared spectrometer with optical schematic diagrams is included. Wilmad Glass. Circle 561.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.

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Immunologist. Ph.D. Extensive research experience in university and industry. Excellent publications and references. Seeking responsible position in development of hybridomas/monoclonal antibodies for use in cancer therapeutics/diagnostics, and in area of immunomodulators. Box 43, SCIENCE. 3/21, 28; 4/4

Toxicologist/Teratologist. Ph.D. with postdoctoral experience. Broad background encompassing engineering, biological sciences, toxicology, pharmacology with project management. "Hands on" experience in acute toxicologic testing, developed in-house methodologies for toxicologic tests; wrote and edited scientific reports, standard operating procedures and protocols. Trained in contract laboratory settings. Experience in teaching and supervision. Seeking industrial or government position; will consider an academic post. Well-organized researcher, excellent communication skills. Available immediate-ly. Hoffman, 4B Taylor Avenue, Colonial Village, East Brunswick, NJ 08816. Telephone: 201-937-9587 evenings and weekends. X

Zoologist/Paleontologist, graduated, is looking for an engagement as a scientific illustrator (drawings of biological and paleontological objects for publications, and so forth.) Free cooperation is preferred. Box 41, SCIENCE. 3/21, 28

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The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) invites applications for the position of data manager to be responsible for the development and operation of the commission's computing and data facilities and the provision of data handling and analyses in support of the scientific committee and its various expert groups. Applicants should have university qualifications in computing or biological sciences and experience in the operation and programming of advanced scientific data facilities and their application in the handling of marine biological and fisheries data. Knowledge of population dynamics and stock assessment an advantage.

Fluency in more than one of the official languages, English, French, Spanish, or Russian, is desirable.

The salary is based on the United Nations (UN) scales and will be in the range of U.S. \$33,000 to U.S. \$43,000 per annum net. Allowances are based on the UN system and include removal, installation and repatriation allowances, and a home leave allowance every 2 years.

Address applications by 30 April to: The Executive Secretary, CCAMLR, 25 Old Wharf, Hobart, Tasmania, Australia 7000.

ASSISTANT PROFESSOR—MICROBIOLOGY-BIOCHEMISTRY

The Department of Animal and Dairy Science, University of Georgia, invites applications for a full-time, tenuretrack position at the assistant professor level. The successful candidate must have a Ph.D. in microbiology with training and/or experience in biochemistry. Experience or training in recombinant DNA methodologies is required. The appointment will be 75 percent research and 25 percent teaching with a 25 percent joint appointment in the College of Arts and Sciences. The successful candidate will be responsible for developing an independent research thrust in cellular and molecular biology in studying microbiological functions impacting nutrient digestibility and metabolism of farm animals. Applications must be received by 1 May 1986. Send completed curriculum vitae and have four letters of reference sent directly to:

Dr. David G. Spruill, Head Animal and Dairy Science Department Livestock-Poultry Building University of Georgia Athens, GA 30602

POSITIONS OPEN

The Department of Veterinary Biosciences, College of Veterinary Medicine, University of Illinois, Urbana-Champaign, is seeking applications for a permanent tenure-track position at the ASSISTANT OR ASSO-CIATE PROFESSOR level in the area of veterinary macro- or microscopic anatomy in the veterinary medical curriculum and will be expected to develop a research program and participate in graduate instruction. Current research interests in the group are in endocrine/reproductive and hard tissue studies.

Candidates should possess the Ph.D. degree or equivalent with preference to those who also hold the D.V.M. or equivalent. The applicant must use English fluently. Salary commensurate with qualification. To ensure full consideration, applications should be received by 15 April 1986. Starting date on or after 1 July 1986.

Send curriculum vitae and three letters of reference to: Dr. W. C. Wagner, Chair, Anatomy Search Committee, University of Illinois, Department of Veterinary Biosciences, 2001 South Lincoln, Urbana, IL 61801; telephone: 217-333-2506.

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ASSISTANT PROFESSOR MOLECULAR BIOLOGY/GENETICS

The Department of Microbiology, Louisiana State University (LSU), Baton Rouge, Louisiana, as part of an expansion program, invites applications for tenure-track positions, rank open, with preference at the assistant professor level. Candidates must have postdoctoral experience, strong credentials in microbiology and/or molecular biology/genetics, and a commitment to establish a research program in one of the following areas: (i) gene expression or genome organization in microorganisms, (ii) molecular biology/genetics with applications in bio technology, (iii) molecular biology/genetics as related to agricultural microbiology. Send curriculum vitae, a description of future research plans, and a list of three references by 11 April 1986 to: Dr. R. J. Siebeling, Department of Microbiology, 508 Life Sciences Building, Louisiana State University, Baton Rouge, LA 70803. LSU is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR IN CANCER BIOLOGY

The Cancer Biology Section of the Division of Radiation Oncology, Department of Radiology, Washington University School of Medicine, St. Louis, Missouri, has an opening for an individual with training and experience in experimental oncology. Ideally, the candidate would have expertise in the areas of radiation biology and hyperthermia on experimental tumors and/or on mammalian cells in vitro. The opening is available 1 July 1986. This academic position is tenure-tracked. The salary is negotiable, dependent upon experience and qualifications of the individual. The qualified individual will have postdoctoral research experience, the ability to develop independent research, and some experience in teaching. The individual will be expected to function as an independent research in the training program of the Division of Radiation Oncology. Applications should be received by 30 April 1986. Please send curriculum vitae, one or two sample reprints and the names, addresses, and telephone numbers of three references to: Dr. Joseph L. Roti Roti, Section of Cancer Biology, Washington University School of Medicine, 4511 Forest Park Boulevard, St. Louis, MO 63108.

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ASSISTANT PROFESSOR BIOLOGY DEPARTMENT SAINT MICHAEL'S COLLEGE

Applications are invited for entry-level, tenure-track posi-Applications are invited for entry-level, tenure-track posi-tion in Biology Department. Responsibilities include teaching a one-semester biochemistry course and an upper-division biology course along with other depart-ment offerings. Teaching load is 12 contact hours each semester. In addition, the successful candidate will be expected to initiate an active research program which will incorporate undergraduate students. Strong preparation in biochemistry, versatility in biology, and Ph.D. re-quired. More detailed information is available from the biology chairperson. Preferred starting date is Ianuary biology chairperson. Preferred starting date is January 1987, however, September 1987 is alternative. Send résumé along with at least three letters of evaluation by 15 August 1986 to: Personnel Office, St. Michael's College, Winooski, VT 05404. An Equal Opportunity Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSORS Department of Physiology and Biophysics The University of Iowa College of Medicine

CELLULAR ELECTROPHYSIOLOGY

Applications are invited for a new tenure-track position from individuals with a strong record of research involv-ing electrophysiological studies of cell membranes. Our interests include, but are not limited to, individuals using patch and whole-cell voltage clamp techniques to study cellular and molecular mechanisms underlying development and regulation of excitability.

CELLULAR NEUROPHYSIOLOGY

Applications are invited for a new tenure-track position from individuals with a strong record of research in molecular and/or cellular neurophysiology. Our interests strategies of cell and molecular biology to study the development and regulation of neuronal and/or glial function.

Please send curriculum vitae, description of research Plans, and three letters of reference to: Dr. Robert E. Fellows, Chairman, Department of Physiology and Biophysics, The University of Iowa, Iowa City, IA 52252

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

ASSISTANT PROFESSORS OF PHARMACOLO-GY/TOXICOLOGY—THE PHILADELPHIA COL-LEGE OF PHARMACY AND SCIENCE invites applications for two tenure-track positions in pharmacolo-gy (i), and toxicology (i). Candidates should have a Ph.D. in toxicology, pharmacology, or related sciences. Preference will be given to individuals with postdoctoral experience. Candidates must be capable of mounting a uigrorous research program in support of our graduate vigorous research program in support of our graduate programs in pharmacology and toxicology. In addition, they must participate in the teaching of undergraduate pharmacy and toxicology students. The positions are to be filled on or before 15 August 1986. Applicants should submit curriculum vitae and list of references by 15 April Submit curriculum vitae and list of references by 15 April 1986 to: Dr. Gary L. Lage, Chairman, Department of Pharmacology and Toxicology, PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE, 43rd Street and Kingsessing Mall, Philadelphia, PA 19104. Equal Opportunity Employer, M/F/H/V.

UNIVERSITY OF WISCONSIN-MADISON LABORATORY OF GENETICS: Laboratory of Genetics, which includes the Departments of Genetics and Medical Genetics, is seeking applicants for a position as ASSISTANT PROFESSOR OF MEDICAL GE-NETICS. Duties: research in human/animal genetics with medical implications. Examples include genome/ chromosome organization and function, metazoan develchromosome organization and function, metazoan devel-opmental genetics, regulation of gene expression, genet-ics of cellular communication, immunogenetics, and mechanisms of genetic disease. Teaching of graduate and undergraduate students in genetics and medical genetics. Qualifications: Ph.D. in genetics or a related discipline or M.D. with research experience in genetics. Postdoctoral experience desirable. Application deadline: 15 May 1986. Position available: on or after 1 September 1986. Send applications to: Millard Susman, Chairman, Lab-oratory of Genetics. 445 Henry Mall. Madison WI oratory of Genetics, 445 Henry Mall, Madison, WI 53706. The University of Wisconsin is an Equal Opportuni-ty/Affirmative Action Employer.

POSITIONS OPEN

UNIVERSITY OF GUELPH COLLEGE OF BIOLOGICAL SCIENCE DEPARTMENT OF NUTRITIONAL SCIENCES

The Department of Nutritional Sciences is undergoing expansion into new teaching and research areas and invites applications for two tenure-track positions at the assistant professor level. Each position involves teaching at the undergraduate and graduate levels and develop-ment of an independent research program. A Ph.D. or equivalent degree in nutritional sciences or related disci-plines such as biochemistry, cell biology, or physiology is required. Successful applicants will be expected to develop a research program dealing with nutrition at the molecular, cellular, organ, or whole animal level of organization. Examples of suitable research areas include the effect of nutrition on behavior, aging, gene expres-sion, or hormonal control of metabolism. Preference will be given to applicants with experience in teaching and postdoctoral research. Applications should include cur-riculum vitae, a list of publications, future research objectives, and the names of three referees and be sent to:

Dr. H. S. Bayley, Chairman, Department of Nutritional Sciences, University of Guelph, Guelph, Ontario, Canada N1G 2W1

These vacancies are subject to final budgetary approv-al. Closing date for applications is 1 May 1986. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and perma nent residents.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF) SCHOOL OF DENTISTRY DIVISION OF PERIODONTOLOGY

University of California, San Francisco School of Dentistry, seeks applicants for a tenure-track position in the Division of Periodontology at the ASSISTANT OR ASSOCIATE PROFESSOR level commencing 1 July 1986. Applicants must have a dental degree (D.D.S., D.M.D., or equivalent) and a certificate of advanced provide a regulation and a certificate of advanced biology. training in periodontology. A Ph.D. in either oral biolo-gy, microbiology, or immunology is desirable, but not required. Responsibilities include teaching oral biology and periodontology at the undergraduate and graduate levels (30 percent) and research (50 to 70 percent). Intramural practice (20 percent) opportunities are available. Salary commensurate with experience. Deadline for applications is 30 April 1986. UCSF is an Equal Opportunity/Affirmative Action Employer; minorities and we encouraged to apply. Send curriculum vitae to: Dr. Gary C. Armitage, Division of Periodontology, Room D-4012, University of California, San Francisco School of Dentistry, San Francisco, CA 94143–0762.

ASSOCIATE OR FULL PROFESSOR in the De-partment of Geography and Fellow of the Coopera-tive Institute for Research in Environmental Sciences (CIRES). Starting date September 1986. Tenured position to pursue research within the Center for Earth Observations and Remote Sensing (CEORS), in the area of snow and ice hydrology using remote sensing methods. Strong background in radiative transfer, modeling, and digital image processing, as well as a record of grant support required. Candidate will participate in establishing an interdisciplinary curriculum in remote sensing and will teach two courses per academic year. Please submit a letter of application, recent curriculum vitae, a statement of research and teaching interests, and names of three referees before 15 May 1986 to: Dr. Alexander F. H. Goetz, CIRES, Campus Box 449, University of Colo-rado, Boulder, CO 80309. Equal Opportunity/Affirmative Action Employer.

ASSOCIATE DIRECTOR DIVISION OF CANCER TREATMENT

The Howard University Cancer Center invites applica tions for an associate director to head the Division of Cancer Treatment with major responsibility to develop a clinical research program. Candidates should be Board-certified, with experience in clinical research. Send curric-ulum vitae and three references to: **Dr. Suresh Mohla**, Howard University Cancer Center, 2041 Georgia Avenue NW, Washington, DC 20060. Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

INCARNATE WORD, Catholic liberal arts college emphasizing teaching, seeks ASSISTANT PROFES-SOR for microbiology, immunology, cell physiology, general biology; \$16,000 to \$20,000; Ph.D. required. Send curriculum vitae, transcripts, and three reference letters prior to 18 April to: Sister Catalina Fresquez, Incarnate Word College, San Antonio, TX 78209. An Equal Opportunity/Affirmative Action College.

ASSOCIATE/ FULL PROFESSOR OF GEOHYDROLOGY

Tennessee Technological University is seeking a highly qualified person to fill a newly created academic position in the Center for the Management, Utilization, and Protection of Water Resources and the Civil Engineering Department. The position is a 9-month, tenure-track position at the associate/professor level and available immediately. An individual is sought who is interested in developing an excellent research program in geohydrolo-gy. The individual will be expected to teach graduate and undergraduate courses related to hydrology; transport of pollutants in ground water; and ground-water monitor-ing. Applicants should have a demonstrated record of leadership in research and scholarship. Candidates should hold the Ph.D. or equivalent. Applicants with engineer-ing backgrounds should have the ability to obtain a Tennessee professional engineer's license in a period of 1 year from the date of appointment. Salary will be com-mensurate with qualifications and experience of applicant. Interested persons should send complete résumés with name, address, and telephone number of four references to:

> Dr. Dennis George, Chairman Geohydrologist Search Committee Tennessee Technological University P.O. Box 5082 Cookeville, TN 38505

Closing date is 1 May 1986. Tennessee Technological University is an Affirmative Action/Equal Opportunity Em-

ASSOCIATE/FULL PROFESSOR: The Department of Internal Medicine at the University of California at Davis, invites applications from qualified individuals for a full-time faculty position at the associate/full professor level in the Division of Endocrinology. Candidates must be eligible for licensure in the state of California and have a strong interest in hormone-fuel metabolism in general and diabetes mellitus in particular. This individual must also possess extensive experience in academics, clinical care, administration, research (clinical and basic), and teaching, with proven strong leadership qualities. The applicant will be responsible for the development and maintenance of a Diabetes Center/Clinical Research Cenmaintenance of a Diabetes Center/Clinical Research Cen-ter. Position open until filled—no applications accepted after 31 May 1986. Please send a letter outlining re-search, teaching background and interests, and the names of five references. Reply to: Thomas T. Aoki, M.D., Chairman of Search Committee, Division of Endocri-nology, University of California, Davis, School of Medicine, 4301 X Street, Sacramento, CA 95817. The University of California is an Affirmative Action/Equal Opportunity Employer.

BACTERIOLOGY. Ph.D. required. Tenure-track, teaching bacteriology, applied microbiology, and a gen-eral biology, botany, or zoology course. Teaching and postdoctoral experience desirable. Research facilities and opportunities available. Assistant professor level starting Opportunities available. Assistant professor level starting 18 August 1986. An Equal Opportunity/Affirmative Ac-tion Employer. Screening begins 1 April 1986. Apply to: V. Thiesfeld, Chair, Department of Biology, Univer-sity of Wisconsin–Stevens Point, Stevens Point, WI 54481. Telephone 715-346-2159.

BIOMEDICAL RESEARCH TECHNOLOGIST

Available immediately in a pediatric research hospital setting. Duties include virus growth and purification, cell culture, nucleic acid, gel electrophoresis, data collection and recording, operation of centrifuges, scintillation counters, and optical density instrument, as well as checking cell culture incubators to ensure proper work-ing conditions. B.S. degree required in chemistry or biology, as well as 2 years of medical research training. Experience with preparation of monoclonal antibodies and P-3 pathogenic viruses is also required. Send ré-sumés to: Jack Hilzheim, 1295 Poplar, Memphis, Tennessee 38104.

An Equal Opportunity/Affirmative Action Employer

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SYNTRO is a rapidly growing biotechnology company specializing in the development of products through genetic engineering for the agricultural, animal health, and specialty chemical markets. Syntro is currently expanding research activities and is seeking **MOLECULAR BIOLOGISTS and BIOCHEMISTS** at all levels to complement our existing scientific staff. Preference will be given to those scientists with experience in:

- prokaryotic and eukaryotic expression systems
- nucleic acid sequencing and synthesis
- animal virus manipulation
- microbial physiology
- structural analysis of macromolecules
- fermentation engineering

SYNTRO, located in the heart of the San Diego scientific community, offers a competitive compensation package in an outstanding research environment, as well as excellent opportunities for professional growth. If you would like to contribute to our growth and development as a successful biotechnology company, please send resume and references to:

Director of Human Resources **SYNTRO CORPORATION** 10655 Sorrento Valley Road San Diego, CA 92121 AN EQUAL OPPORTUNITY EMPLOYER

Sr. Investigator Monoclonal Antibody

Squibb is recognized as an international leader in the research and development of pharmaceuticals and related health care products. We currently have an exceptional opportunity available for a biochemist or immunologist to join our Cell Biology Group as a senior research investigator.

The individual we are seeking should have an interest in the application of monoclonal antibody and immunoassay techniques to a variety of biological problems. The selected candidate will be responsible for establishing a vigorous research program in collaboration with a diverse group of scientists with interests in receptors, gene expression and regulation, regulation of enzyme levels, and methods for the detection of new antibiotics.

Qualified applicants will have a Ph.D. in Biochemistry, Immunology or related field and a minimum of one year relevant postdoctoral training. Individuals with experience in coupling of small molecular weight ligands to carriers and in the isolation of ligands will be given preference.

This position is based at The Squibb Institute for Medical Research located in Princeton, NJ, a pleasant semi-rural setting convenient to both Philadelphia and New York City. In addition to an excellent salary and comprehensive benefits package, we offer the opportunity for exceptional scientists to pursue stimulating careers.

For confidential consideration, please submit your curriculum vitae to The Squibb Institute for Medical Research, Human Resources Department MA, PO. Box 4000, Princeton, NJ 08540. An equal opportunity employer.



Where science comes to life.

VIROLOGISTS

Southern Research Institute has positions for virologists and a veterinary virologist to participate in the expansion of research efforts in antiviral drug development. Positions available for candidates with a PhD in Virology, Microbiology, or Biochemistry and a DVM with a PhD in Virology. Recent graduates and individuals with appropriate post-doctoral training will be considered. Experience with cell culture, animal model systems, and molecular virology desirable.

Research involves evaluation of chemical compounds for in vitro and in vivo antiviral activity against exotic RNA viruses and retroviruses. Work will be conducted in a P3-level containment facility. Responsibilities include serving as task leader on current research contracts, supervising junior staff, and collaborating with other scientists in the conception, development, and execution of other related research programs. Opportunity available to publish and present findings at scientific meetings.

Located in a 20-acre complex and with a staff of over 700, Southern Research Institute is a diversified contract research organization in its fifth decade of operation. The Birmingham area, with a population of one million, offers a mild four-season climate, lower-than-average cost of living, diverse recreational and cultural opportunities and a variety of convenient housing alternatives. To apply, contact Denise Johnson, Personnel Administrator:



SOUTHERN RESEARCH INSTITUTE Personnel Office, Dept. B-115 P.O. Box 55305 Birmingham, AL 35255-5305

An Affirmative Action/Equal Opportunity Employer

Research Biologist

American Cyanamid's Agricultural Research Center in Princeton, NJ has worked to discover and develop the agricultural products needed to meet the ever growing global demand. Our development projects are at the forefront of agricultural technology.

Presently we have an opening for a Genetic Toxicologist. The successful applicant must have a thorough knowledge of genetics and/or molecular biology and hands-on experience in both microbiology and *in vitro* cell culture. The ability to write clear, concise reports is also essential. This is an entrylevel position requiring a PhD plus at least two years' postdoctoral experience.

American Cyanamid offers a competitive compensation and benefits package. Interested persons should send a resume and names of three references to the Employment Office:



American Cyanamid Company

Agricultural Research Division P.O. Box 400 Princeton, NJ 08540 An Equal Opportunity Employer M/F/H No Agencies Please

ASSOCIATE/FULL PROFESSOR CNS NEUROPHYSIOLOGIST

An endowment from the Peters Foundation has enabled An endowment from the Peters Foundation has enabled the Medical College of Wisconsin to seek a CNS neuro-physiologist to join a growing group of neuroscientists. The primary appointment will be in the **Department of Anatomy and Cellular Biology** and a secondary ap-pointment in a suitable basic or clinical science depart-ment would be encouraged. Candidates with a broad neuroscience background and interests, and the ability to interact with colleagues actively engaged in cellular and developmental neurosciences, membrane biophysics, neuropharmacology, autonomic control systems, and motor and sensory systems are preferred. Applicants must have demonstrated ability to develop and maintain an active and productive research program in the neuro-sciences and will be expected to participate in neurosci-ence courses for medical and graduate students. Tenure-track appointment at the full or associate professor level is preferred, but applications from assistant professors with vigorous research programs will also be seriously considered. The successful applicant will receive substan-tial research funds for 3 years to supplement ongoing research programs. Applicants should send, by 1 June, a description of current research and future plans, curriculum vitae, and names of three references to:

Dr. F. D. Anderson Chairman, Search Committee Department of Anatomy and Cellular Biology Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, Wisconsin 53226 Affirmative Action/Equal Opportunity Employer ASSOCIATE/FULL PROFESSOR OF LIMNOLOGY

Tennessee Technological University is seeking a highly qualified person to fill a newly created academic position in the Center for the Management, Utilization, and Protection of Water Resources and Department of Biol-ogy. The position is a 9-month, tenure-track position at the associate/professor level and available immediately An individual is sought who is interested in developing an excellent research program in limnology. The individ-ual will be expected to teach graduate and undergraduate courses related to limnology. Applicants should have a demonstrated record of leadership in research and schol-arship. Candidates should hold the Ph.D. or equivalent. Salary will be commensurate with qualifications and experience of applicant. Interested persons should send complete résumés with name, address, and telephone numbers of four references to:

Dr. Dennis B. George, Chairman Limnologist Search Committee Tennessee Technological University P.O. Box 5082 Cookeville, TN 38505

Closing date is 1 May 1986. Tennessee Technological University is an Affirmative Action/Equal Opportunity Employer.

ASSOCIATE/FULL PROFESSOR OF MICROBIAL TOXICOLOGY

Tennessee Technological University is seeking a highly qualified person to fill a newly created academic position in the Center for the Management, Utilization, and Protection of Water Resources and Department of Biology. The position is a 9-month, tenure-track position at the associate/professor level and available immediately. An individual is sought who is interested in developing an excellent research program in environmental, microbi-al toxicology. The individual will be expected to teach graduate and undergraduate courses related to aquatic microbiology and microbial toxicology. Applicants should have a demonstrated record of leadership in research and scholarship. Candidates should hold the Ph.D. or equivalent. Salary will be commensurate with qualifications and experience of applicant. Interested persons should send complete résumés with name, ad-dress, and telephone number of four references to:

Dr. Dennis B. George, Chairman Microbiologist Search Committee Tennessee Technological University P.O. Box 5082 Cookeville, TN 38505

Closing date is 1 May 1986. Tennessee Technological University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

Applications are invited for a post of **BIOSTATISTI-CIAN** in the Unit of Biostatistics and Field Studies at the **INTERNATIONAL AGENCY FOR RE-SEARCH ON CANCER (IARC).**

The IARC has a broad range of research activities into cancer causation and prevention, with epidemiological and field studies in many countries of the world and an extensive experimental program. The imcumbent of the post would be expected to collaborate actively with other IARC scientists and to develop statistical methodology in areas of general relevance to the IARC's program.

The appointment may be either at a junior or senior level. Requirements are, at the junior level, 1 or 2 years of postdoctoral experience in a medical or biological field or its equivalent and at the senior level, a demonstrated ability to develop research activities in relevant areas of biostatistics and to collaborate fruitfully with scientists from other disciplines.

Salary will depend on qualifications and experience, but within the range U.S. \$21,261 to \$30,275, plus a post adjustment element which is currently of U.S. \$4,504 to \$6,392, per annum for a staff member without depen-dents, U.S. \$22,675 to \$32,605, plus post adjustment U.S. \$4,803 to \$6,884 for a staff member with dependents.

A recruitment is expected during the second half of 1986 for an initial period of 2 years with possibility of renewal. Further particulars and application forms can be obtained from:

Personnel Office IARC 150 Cours Albert Thomas 69372 Lyon Cedex 08 France

CHAIRPERSON, Department of Microbiology/Im-munology, Northeastern Ohio Universities College of Medicine. The Northeastern Ohio Universities College of Medicine, in consortium with the University of Ak-ron, Kent State University, and Youngstown State Uni-versity, offers a 6-year combined B.S./M.D. degree program. Undergraduate clinical education takes place in associated hospitals in Akron, Canton, Youngstown, and surrounding areas. Chairperson is responsible for teaching human genetics, immunology, and microbiology to medical students; for recruitment and development of microbiology/immunology faculty; for the day-to-day administration of the microbiology/immunology departadministration of the microbiology/immunology depart-ment; for a personal research program; and for participa-tion in the education of graduate students in biomedical engineering, cell biology, and biochemistry/molecular biology, through the graduate programs of the college's consortium universities.

The college enjoys strong support from the State of Ohio, with a capital expansion program about to begin on the basic medical sciences campus, Rootstown, Ohio. Position requires Ph.D. or M.D. degree, qualifications for senior faculty appointment. Experience in medical school education and administration, demonstration of an active research program, enthusiasm and ability to interact with students and faculty.

Candidates should send curriculum vitae, a one-page statement of teaching and research interests and research funding, including names and addresses of three references no later than 15 April 1986. Applications or nominations should be sent to: The Office of Human Resources, Northeastern Ohio Universities College of Medicine, P.O. Box 95, Rootstown, Ohio 44272. An Affirmative Action/Equal Opportunity Employer.

CHAIRPERSON **BIOLOGICAL SCIENCES**

The Department of Biological Sciences of the University Center at Binghamton, State University of New York, invites applications for the position of department chair. The new chair will guide the continuing growth of excellence in graduate (Ph.D.) education and research, while continuing the recognized quality of our under-graduate programs. The chair will preside over the junior, to join our current faculty of 30 full-time persons. Send curriculum vitae and letter of intent to: **Chairper**both senior and son Search Committee, Department of Biological Sciences, State University of New York at Bingham-ton, Binghamton, New York 13901.

Applications will be reviewed beginning 31 March 1986 with appointment for fall 1986 or thereafter. AnAffirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

BIOLOGY FACULTY

The Biology Division at the California Institute of Technology has a tenure-track, faculty position open for a cell biologist whose major interests are in biophysical, biochemical, or structural approaches to function. The search includes cellular neurobiology. Interested persons should submit curriculum vitae, a statement of research interests, and the names of three references to:

Search Committee c/o Nancy Gill Biology Division, 216-76 California Institute of Technology Pasadena, California 91125 Equal Opportunity/Affirmative Action Employer

BOTANIST

PACIFIC TROPICAL BOTANICAL GARDEN

The Pacific Tropical Botanical Garden, the only conressionally chartered national tropical botanical garden, devoted to responsibilities in research, education, and conservation, seeks to fill a permanent position in systematic and evolutionary botany effective 1 July 1986. The duties will include research on the flora of Hawaii, the Pacific Basin, and/or other tropical areas. The appointee may also assist the director in various administrapointee may also assist the director in various administra-tive and/or editorial matters and contribute to the gar-den's educational program. Adjunct appointments at other Hawaiian research and education institutions may be possible. A Ph.D. in systematic botany is required. Postdoctoral and/or other experience are desirable. Salary commensurate with experience. Applicants should submit curriculum vitae, description

of current and proposed research, and arrange to have three letters of recommendation sent by 1 April 1986 to:

Dr. William L. Theobald, Director Pacific Tropical Botanical Garden P.O. Box 340

Lawai, Kauai, Hawaii 96765

The Pacific Tropical Botanical Garden is an Equal Opportunity Employer.

THE AUSTRALIAN NATIONAL UNIVERSITY invites applications from suitably qualified men and women for appointment to the CHAIR OF ECO-NOMIC HISTORY in the Faculty of Economics and Commerce. The professor will be expected to provide leadership in research and in the teaching of economic history. Applicants from any area of economic history are encouraged and are asked to indicate any subsidiary interests in other areas covered by the faculty. Closing date: 25 April 1986. Reference: FE: 29.1.1. salary: profesthat: 25 April 1960. Reference: PE. 29.11. statisty. plots-sor: not less than AS57,036 per annum. Current exchange rate: A\$1 = \$US.70. Appointment as professor is to retiring age (65 years). Grants are provided towards travel and removal. Assistance towards housing is given to an appointee from outside Canberra. Eligible appointees will be required to join the Superannuation Scheme for Austra-lient Universities. Materiaria devia is available. The universities lian Universities. Maternity leave is available. The university reserves the right not to make an appointment or to make an appointment by invitation at any time. Applicants should quote the advertisement reference when requesting further particulars and when submitting applications. Applications should be submitted to the undersigned. GPO Box 4, Canberra ACT 2601. R. V. Dubs, Registrar. The University is an Equal Opportunity Employer

CHAIRMAN, DEPARTMENT OF PHARMACOLOGY AND THERAPEUTICS LOUISIANA STATE UNIVERSITY MEDICAL CENTER, SHREVEPORT

The School of Medicine invites nominations and appliations for the chairmanship of an expanding Depart-ment of Pharmacology and Therapeutics. Candidates must have an outstanding record of research, strong commitment to medical and graduate education, and the vision and experience to lead a department of excellence. Applicants must provide curriculum vitae, names of three references and a statement of research interests by 15 references, and a statement of research interests by 15 April 1986 to:

Dr. Richard J. Courtney, Chairman Pharmacology Search Committee Louisiana State University Medical Center 1501 Kings Highway Shreveport, LA 71130-3932 Affirmative Action/Equal Opportunity Employer

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DIRECTOR OF BASIC BIOLOGICAL RESEARCH, AND VICE PRESIDENT

A private, non-profit biomedical center renowned for the quality of its research and for nurturing scientific independence and diversity seeks leadership for the years ahead.

For the strong, decisive individual who derives great satisfaction through nurturing fellow scientists, this is a unique environment. It is also a unique opportunity to maximize the interchange between science and medicine.

The successful candidate will have a Ph.D., an M.D. or both. He or she will have extensive experience in basic, biomedically related research. He or she will also have a broad range of interests, and the judgment, decisiveness, administrative and interpersonal skills to effectively lead and minister to the needs of a diverse group of dedicated scientists.

The position is located in an attractive, mid-Atlantic, suburban setting. It offers a highly competitive compensation package.

Your reply will be treated with the utmost confidentiality. Send your C.V. and a brief description of why such a leadership role is of interest, to:

Box 45, Science Equal opportunity employer

Scientist -Plant Physiology

The Agracetus plant genetic engineering group has a vacancy for a scientist with broad experience in wholeplant metabolism. Applicants should have demonstrated competence in modern biochemical techniques. Postdoctoral experience is required. The scientist chosen for this position will join a growing interdisciplinary research team working toward the genetic improvement of major crops.

Agracetus has evolved from Cetus Madison Corporation as a joint venture initiated by W.R. Grace & Co. and Cetus Corporation. The partnership combines the research strengths and technology of Cetus with the business experience and success of the Grace Agrichemical Group.

Agracetus is an industry leader in applying the techniques of biotechnology to agriculture. The location of the research complex, near the University of Wisconsin in Madison, provides an ideal setting for both career and lifestyle enhancement.

We offer a competitive salary, a comprehensive benefits package and advancement opportunity.

Send a detailed curriculum vitae to: Dr. Winston J. Brill, Agracetus, 8520 University Green, Middleton, WI 53562. We are an Equal Opportunity Employer.

Agracetus

DNAX Research Institute

Postdoctoral Fellowships in Immunology

DNAX Research Institute has the following fellowships available for PhDs with training in cellular immunology and/or immunochemistry.

*To study the role of lymphokines in B cell differentiation and immunoglobulin isotype expression with Dr. Robert Coffman.

*To study the nature of receptors for B cell stimulatory factors and the regulation of their expression in immune responses with Dr. Maureen Howard.

*To study functional T cell subsets and lymphokine biosynthesis with Dr. Tim Mosmann.

*To study the regulation of hematopoietic stem growth and differentiation by stromal cell lines with Dr. Donna Rennick. DNAX, which is entirely supported by Schering-Plough Corp., provides a unique opportunity for productive collaborative efforts between immunologists and molecular biologists in an open, academic-like atmosphere.

DNAX two-year postdoctoral fellowships have generous stipends and benefits. Candidates should send a CV, a statement of research interests, and the names of three references to: Human Resources Dept., DNAX Research Institute, 901 California Ave., Palo Alto, CA 94304-1104. An equal opportunity employer m/f/h.

Career Opportunities at Battelle-Northwest

Battelle, Pacific Northwest Laboratories offer opportunities for scientists and engineers to collaborate in conducting and directing research and development activities in a leading multidisciplinary laboratory. We are currently seeking to fill the following position.

Teratologist

Doctoral degree plus five years' experience and good publication record required. Project management experience highly desired. Will contribute to research team in developmental toxicology.

U.S. citizenship required.

Reply in confidence with detailed resume, salary history and current requirements to: Mr. C.J. Mitchell, Professional-Employment, Battelle-Northwest, P.O. Box 999, Richland, WA 99352.

> Excellent benefits package. An Equal Opportunity Employer M/F.

Battelle

PROTEIN CONJUGATION CHEMIST

NYGene Corp., a newly formed company engaged in leading edge biotechnology product development, has an opening available for a scientist experienced in:

- the conjugation of drugs, toxins, enzymes, and haptens to antibodies, antigens and solid matrices
- the attachment of antibodies to biologically compatible solid matrices
- the purification and evaluation of antibody conjugates by gel electrophoresis, column chromatography, ELISA, biological activity, etc.
- immunoassay development

This position offers substantial potential for personal, scientific, and corporate growth. We are located in lower Westchester County only 30 minutes from midtown Manhattan, and 15 minutes from the George Washington and Tappan Zee Bridges. Send c.v., and salary requirements, in confidence to: NYGene Corp., One Odell Plaza, Yonkers, New York 10701. EOE.

NYGene Corp.

IMMUNODIAGNOSTIC SCIENTISTS

CooperBiomedical, Inc., a leading manufacturer of diagnostic prod-ucts, has immediate openings for PhD level candidates. The successful applicants should be highly motivated individuals who are able to work independently. These posi-tions require a PhD degree in Immunochemistry, Chemistry, Biochemistry or Immunohematology. Responsibilities will emphasize strong product development skills in enzyme immunoassay systems, membrane technology and/or immunohematology. CooperBiomedical is located in an attractive suburban community just 30 miles from Philadelphia. We offer competitive salaries commensurate with experience and outstanding benefits program that includes company paid medical, dental, and life insurance. When responding please refer to the specific position described above. For immediate consideration, please send your resume with salary history in confidence to:

Human Resources Department

COOPERBiomedical 1 Technology Court Malvern, PA 19355 Equal Oppty Employer M/F/H/V

Saudi Arabia

RESEARCH OPPORTUNITIES at the KING FAISAL SPECIALIST HOSPITAL AND RESEARCH CENTRE

The Hospital, a 500 bed acute care facility, is currently seeking highly qualified individuals for the following positions in the **RESEARCH CENTRE**:

RADIONUCLIDE PRODUCTION & CYCLOTRON OPERATIONS CONSULTANT, RADIONUCLIDE PRODUCTION

• PhD - PHYSICAL SCIENCE; 15 years experience with at least 10 years involving the use of an accelerator facility and/or application of radioactivity. International reputation as a Scientist as evidenced by publications, patents or outstanding administrative experience in high technology areas involving radioactivity, e.g. Cyclotron production and utilization of medical or industrial radionuclides, U.S. or U.K. GMP standards and regulatory affairs for radiopharmaceuticals, or tracer kinetics and mathematical modeling of physiologic processes.

HOT CELL RADIOCHEMIST

BS-CHEMISTRY; 5 years experience in preparation and production of radioactive isotopes.
 CYCLOTRON OPERATOR

•ASSOC. - ELECTRONICS, PHYSICS; 3 years experience operating and maintaining cyclotronics.

BIOLOGICAL AND MEDICAL RESEARCH

• PhD - SCIENCE OR ENGINEERING; 15 years experience in molecular biology techniques applicable to human biochemical genetics. Proposed topics of research include studies of inborn errors of metabolism, insulin gene polymorphisms, and oncogenes in leukemia, lymphomas and other human tumors.

SCIENTIST III

• MS OR PhD - 5 years minimum experience with PhD, 7 years minimum experience with MS. Experience preferred in work on the Electrophysiology of the heart and electrophysiological techniques including voltage clamping and other intracellular investigational techniques.

SCIENTIST III

• MS OR PhD - 5 years minimum experience with PhD, 7 years minimum experience with MS. Prefer an interest in receptor biology, mechanisms of hormone action and/or intracellular regulatory mechanisms with experience of immunolocalization or in situ hybridization techniques. Possible topics of research could include tumor biology, thyroid disease, diabetes mellitus, reproductive biology, or cellular interactions within the immune system.

SENIOR RESEARCH TECHNICIAN

 BS-LIFE OR BASIC SCIENCES; 5 years experience in research or other relevant setting or MS and 2 years experience. Experience required in one or more of the following fields: protein isolation, characterization and sequencing, and/or peptide synthesis and ligand labeling. Available topics of research include respiratory allergens, thyroid proteins, lymphokines, cytokines and growth factors, connective tissue proteins, oncogene products and lipoproteins.

MEDICAL PHYSICS MEDICAL PHYSICIST TECH

• BS - PHYSICAL SCIENCE; experience in electronics or computer programming with 2 or more years experience in related areas.

MEDICAL PHYSICIST I

• PhD - RADIOLOGICAL PHYSICS; 7 years experience in hospital medical physics. Principal function is to provide physics support for clinical and research activities in magnetic resonance and nuclear medicine, including development of (1) quality control programs for planned Mri unit and nuclear medicine equipment, (2) phantoms for optimization of patients studies in general nuclear medicine and emission computed tomography, and (3) Mri interface for GE RT plan treatment planning.

Commitments are for 24 months with benefits which include modern, furnished housing, air transportation, 30 days paid annual leave, tax advantages and much more. The selected candidates will be employed by and have a contract with the Government of Saudi Arabia.

For further information and/or to apply, please send a detailed resume to: HCA International Company, Dept. SC-0321, One Park Plaza, Nashville, TN 37202 or call toll-free 1-800-251-2561. HCA is an Equal Opportunity Employer.

HCA International Company

VETERINARY PUBLIC HEALTH/PREVENTIVE MEDICINE

The Department of Veterinary Pathobiology, College of Veterinary Medicine, University of Illinois at Urbana-Champaign intends to expand the activities of the Division of Veterinary Public Health/Preventive Medicine by filling 4 tenure-track positions at the assistant or associate professor level over a 2-year period.

The **Veterinary Epidemiologist** is expected to develop a creative and productive research program in basic or applied epidemiology which may include molecular, analytical or econometric approaches to animal disease problems. Essential qualifications include a doctorate in a veterinary or related science with evidence of advanced training in the field of epidemiology (MS, MPH or PhD).

The **Biomedical Statistician** is expected to conduct independent and collaborative research in study design, data analysis, and interpretation of statistical findings. Essential qualifications include a PhD with emphasis in biomedical statistics and research design, experience in biomedical computing including database management, programming and data analysis; consulting experience providing support to faculty and graduate students in the areas of quantitative analysis, experimental design, and computing.

The Veterinary Clinical Epidemiologist is expected to conduct basic and applied research in herd health/preventive medicine with emphasis on quantitative decision-making approaches to herd-health management. Essential qualifications include a DVM degree with advanced training (MS or PhD) and experience in preventive health management of food-producing animal species.

The **Public/Environmental Health Epidemiologist** is expected to develop a research and training program in epidemiology and public health with emphasis on zoonotic or chronic diseases, environmental health epidemiology or comparative medicine. Essential qualifications include a doctorate in a veterinary or related science with evidence of advanced training in the field of public and environmental health (MS, MPH or PhD).

Salary for these positions is negotiable. Review of applications will begin April 15, 1986, but applications will be accepted for each position until a suitable candidate is found. Those interested are encouraged to write to the address below for additional information on the qualifications, responsibilities and departmental goals for each position. Address inquiries or applications (including a curriculum vitae and the names of 3 references) to

> Dr. Ronald D. Smith, Chairman Epidemiology Search Committee Department of Veterinary Pathobiology College of Veterinary Medicine University of Illinois 2001 S. Lincoln Urbana, IL 61801 (Telf. (217) 333-3290)

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



UNIVERSITY OF ZURICH

Zoological Museum

Professorship in animal ecology

The faculty of science invites applications for a tenure track position ranging from an assistant professor to a full professor, depending on the age and scientific experience of the applicant.

The candidate should have a thorough background in ecology, preferably in freshwater invertebrate-biology or population biology.

The candidate should acquire proficiency to teach in German within two years. Applicants are invited to send personal data and list of publications to Dekanat der Philosophischen Fakultät II, Universität Zürich, Rämistrasse 71, CH-8006 Zürich.

NATIONAL INSTITUTES OF HEALTH, PUBLIC HEALTH SERVICE NATIONAL CANCER INSTITUTE DIVISION OF CANCER TREATMENT DEVELOPMENTAL THERAPEUTICS PROGRAM OFFICE OF THE ASSOCIATE DIRECTOR

Position Title: Deputy Associate Director

Grade: GM-15

Salary Range: \$52,262-\$67,940 depending upon qualifications. Physician may be eligible for a Physician's Comparability Allowance paying up to an additional \$10,000. (Candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service)

Location of Position: Landow Building, National Institutes of Health, Bethesda, Maryland.

Qualifications: Research with credentials in tumor biology, *in vivo* and *in vitro* tumor model development, tumor characterization and tumor immunology, as they relate to clinical and laboratory applications of cancer chemotherapy. Candidates must have a M.D., Ph.D. or the equivalent background in biochemistry or pharmacology and a minimum of five years experience in directing and providing leadership for a large multidisciplinary research program. Responsibilities include the development and administration of the above research program to generate basic information about *in vivo* and *in vitro* tumor models in the pre-clinical application of cancer chemotheraphy, in order to contribute to the improvement of both cancer treatment and the management of the NCI's pre-clinical drug development efforts.

Point of contact for further information: Dr. Michael R. Boyd

Associate Division Director for Developmental Therapeutics Division of Cancer Treatment National Cancer Institute National Institutes of Health 9000 Rockville Pike Bethesda, Maryland 20892 Telephone: (301) 496-8720

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

CHAIRMAN DEPARTMENT OF CLINICAL SCIENCES

The New York State College of Veterinary Medicine, The New York State College of Veterinary Medicine, Cornell University, seeks a chairman of the Department of Clinical Sciences on or about 1 July 1986. This will be an academic appointment as full professor reporting directly to the dean, at a competitive salary level. Re-quirements include: a doctor of veterinary medicine degree or equivalent, with evidence of further postgraduate education; demonstrated academic leadership in a college of veterinary medicine; a record of active partici-pation in professional affairs; appropriate teaching and research experience in a university setting. Responsibil-ities include providing academic leadership and adminis-trative support to encourage balance and excellence in instruction, research relevant to clinical veterinary medicine, and clinical competency; recruiting excellent faculty and cultivating professional development of all faculty and staff; preparing and administering a fiscally responsi-ble departmental budget; developing and implementing strong departmental, hospital, and college programs; maintaining a significant level of scholarly activity in his/ her area of expertise.

Address inquiries to: Robert M. Lewis, D.V.M. Chairman, Search Committee, New York State Col-lege of Veterinary Medicine, Cornell University, Itha-ca, New York 14853.

Cornell University is an Equal Opportunity/Affirmative Action Employer/Educator

COGNITIVE PSYCHOLOGY: The Psychology Department at Reed College secks Ph.D. applicants for a tenure-track appointment in cognitive psychology at the assistant professor level. Responsibilities include teaching two courses each semester, one in cognition, another in a staff-taught introductory course, and two to be decided by candidate and department. The successful candidate will demonstrate excellent teaching and re-search potential and the ability to guide quality under-graduate research. Address applications to: Allen Neur-inger, Chair, Psychology Search Committee, Reed College, Portland, Oregon 97202. Include a descrip-tion of skills and possible courses, reprints or preprints, curriculum vitae, and have three letters of recommendation sent. An Equal Opportunity/Affirmative Action Employer.

DEAN OF RESEARCH

The dean is responsible to the provost and may be accorded specific responsibilities and titles pertaining to new and innovative college-wide research thrusts. The dean will supervise the personnel of the Office of Research Programs. An earned doctorate, a strong record of research, and experience in grant administration are required. Qualifications include a demonstrated ability to coordinate and facilitate research efforts and interact successfully with diverse groups including faculty, uni-versity officials, federal and state agencies, foundations, and industrial leaders. Education and training are re-quired in an area represented by the research and academic programs of the college. Experience in an academic environment is highly desirable. Salary for this nontenure-track position is competitive. Applications will be accepted until 15 May 1986. An application must in-clude a current curriculum vitae and a letter summarizing the applicant's relevant qualifications. Applicants must also furnish the names, addresses, and telephone num-bers of five references for possible future contact. Applications and nominations should be sent to:

Dr. Edwin H. White, Chairman Search Committee, Dean of Research 346 Illick Hall State University of New York (SUNY) College of Environmental Science and Forestry Syracuse, New York 13210–2788 Telephone: 315-470-6774

An Affirmative Action/Equal Opportunity Employer DEVELOPMENTAL

NEUROBIOLOGY

Postdoctoral fellowship to study synapse elimination at the mammalian neuromuscular junction using electro-physiological, EM, and organ culture techniques. Con-University of Colorado Medical School, Denver, CO 80262, or Dr. R. M. A. P. Ridge, Department of Physiology, Bristol University Medical School, Bristol BS8 1TD, England. Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

CLINICAL NUTRITION: The Department of Food Science and Nutrition, University of Minnesota, Twin Cities Campus, is seeking applicants for a full-time, tenure-track faculty position as assistant professor, to hold additional appointment in Department of Medicine and share existing practice in clinical nutrition. Require M.D. degree, Board-eligible in internal medicine, with nutrition coursework and/or training, appropriate expe-rience in hospital nutrition support and in research, interest in teaching undergraduate and graduate stu-dents. Prefer Board-certified, with M.S. or Ph.D. in nutrition or closely related field, in addition to M.D. completion at recognized fellowship program with nutri-tion component, demonstrated ability to teach, and attract research funding. Appointee to develop independent clinical nutrition research program, teach graduate course, participate in teaching normal and clinical nutrition to medical and undergraduate students. Salary com-petitive. Attractive fringe benefit plans. Start 1 July or as arranged. Apply by 30 April 1986, with detailed résumé including at least three references to: Dr. E. F. Caldwell, Head, Department of Food Science and Nutrition, University of Minnesota, 1334 Eckles Avenue, Saint Paul, MN 55108. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

DIRECTOR Chesapeake Bay Institute The Johns Hopkins University

The Johns Hopkins University seeks an established scien-tist to become director of Chesapeake Bay Institute (CBI). The institute has a long history of outstanding research in estuarine and marine processes. Recent addi-tions to the staff have provided a nucleus of talented investigators specializing in biochemistry and physiology, biological oceanography, cellular and molecular biology, physical oceanography, centul and metadation ogy, physical oceanography, aquatic toxicology, and marine microbiology. The institute operates a UNOLS Vessel (R/V *Warfield*) and several small boats. Candidates for director should possess a strong record of scholarly achievement and administrative experience. scholarly achievement and administrative experience. Curriculum vitae, names and addresses of four references, and any other pertinent information or inquiries should be addressed to: Dr. Dennis A. Powers, Acting Direc-tor, Chesapeake Bay Institute, 4800 Atwell Road, Shady Side, Maryland 20764. Applications should be received by 1 May 1986. The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.

The Division of Urology, University of California, Los Angeles (UCLA) School of Medicine, is seeking a DIRECTOR of the UCLA Stone Center. Applicants must be at the **full professor** level and have at least 2 years of experience with the Dornier ESWL, including an understanding of its development, construction and function, and its clinical applications. The applicant must also have had extensive research experience and accomdisease. Demonstrated expertise with percutaneous stone techniques is required, as is experience in building and administering the clinical and research aspects of a large stone center. The salary for this position will be \$51,700 annually. Applicants should submit curriculum vitae, bibliography, and names of references. UCLA and its affiliated institutions are Equal Opportunity and Affirmative Action Employers. Inquiries should be addressed to: Chief of Urology, UCLA School of Medicine, Los Angeles, California 90024.

ELECTRON MICROSCOPY (EM) CENTER COORDINATOR

Position open for a highly qualified electron microsco-pist to coordinate the Colorado State University (CSU) Central EM facility. Equipment includes a Philips 400T with STEM, Kevex Super 8000 EDS, and Gatan EELS; Philips 505 with Kevex Super 8000 EDS, Hitachi a Hind's with EDS, Kevex image analysis equipment, and Balzers freeze-fracture devices. Independent research and teaching opportunities exist. EM users include both physical and life scientists, university and industrial re-searchers. This position is an administrative professional searchers. This position is an administrative professional appointment. Salary is up to \$35,000, depending upon qualifications. Application deadline is 1 May 1986. Contact: Dr. Stephen D. Roper, Chairman of Anato-my, Colorado State University, Fort Collins, CO 80523; telephone: 303-491-5847. CSU is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

BIOLOGICAL STATION DIRECTOR: The Department of Biological Sciences, wishing to expand our strong, aquatic component, invites applications for the directorship of the Hancock Biological Station, a modern teaching and research facility on Kentucky Lake. This is a tenure-track position. Salary and rank will be commensurate with experience. The Ph.D. in biology or fisheries is required. We are seeking an individual with biological station experience, demonstrated ability to work with funding agencies, and a specialty area in aquatic systems ecology, aquaculture, or fish population ecology. Duties will include management of the Hancock Biological Station, teaching responsibility in the Department of Biological Sciences, and direction of graduate students. The successful candidate will be expected to establish an The successful candidate will be expected to establish an active research program and seek outside funding for station development. Starting date is 1 August 1986. Please submit curriculum vitae, transcripts, and three letters of reference by 15 April 1986 to: Dr. M. D. Hassell, Chairman, Search Committee, Department of Biological Sciences, Murray State University, Murray, KY 42071. Murray State University is an Affirmative Action/Equal Opportunity Employer.

ENGINEERING RESEARCH ASSOCIATE

The Stanford Synchrotron Radiation Laboratory has an immediate opening for a research/senior research associate in the field of vacuum ultraviolet and soft x-ray science.

Candidate should have Ph.D. in a related area and 3 years of research experience in the fields of photoelectron spectroscopy, as well as experience in ultrahigh vacuum techniques and design. Fa-miliarity with operations of a synchrotron-radia-tion laboratory desirable.

Send curriculum vitae to: Susan Lovgren, SSRL/SLAC Bin 69, Number 52752-S, P.O. Box 4349, Stanford, CA 94305. An Equal Opportunity Employer Through Affirmative Action.

FACULTY POSITION

The Division of Cellular Biology, School of Basic Life Sciences, University of Missouri-Kansas City (UMKC), invites applications for a tenure-track position at the assistant or associate professor level. In addition to primary appointment in the division, the position includes an affiliation with the Schools of Dentistry and Medicine at UMKC. Preference will be given to applicants whose research interests are in the area of microbial genetics. Candidates with recent teaching experience in oral microbiology and a strong record of research achievements are particularly encouraged to apply. Applicants should have an earned doctorate degree with postdoctoral experience, a commitment to establishing an externally funded, independent research program, and a willingness to participate in professional, graduate, and undergraduate teaching. Screening of applicants will begin on 15 April 1986. Please send curriculum vitae, a description of research plans, and names and addresses of three references to:

Dr. F. J. Volenec, Chairman of the Search Committee School of Basic Life Sciences University of Missouri-Kansas City 5100 Rockhill Road Kansas City, MO 64110

UMKC is an Equal Opportunity/Affirmative Action Employer.

RICE UNIVERSITY AND THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER-HOUS-TON, cooperatively offering graduate studies in health care ethics, announce two positions in this field. Rice— ASSISTANT PROFESSOR, tenure track (theological ethics); Texas HSC—additional specialization in SO-CIAL SCIENCE, TECHNOLOGY, AND/OR LAW; open as to rank. Ph.D. required. Apply before 1 May: N. C. Nielsen, Jr., Department of Religious Studies, Rice University, P.O. 1892, Houston, TX 77251.

Stanley J. Reiser, Program on Humanities and Techology, The University of Texas, Health Science Center, P.O. 20708, Houston, TX 77225.

BIOTECHNOLOGY OPPORTUNITIES

Molecular Therapeutics, Inc., and Molecular Diagnostics, Inc., are biotechnology research groups affiliated with Bayer AG of West Germany and its subsidiary, Miles Laboratories, Inc. The companies function independently as basic research institutes, each guided by an internationally recognized Scientific Board. Areas of research include molecular and cellular genetics, nucleic acid chemistry, immunology, and protein chemistry. Both companies are expanding their scientific staffs, and offer outstanding opportunities for scientists and technicians with appropriate qualifications.



Molecular Biologist

Applicants should have a strong foundation and demonstrated ability in Molecular Biological techniques. Experience in immunology. developmental biology. or gene expression would be relevant. Applicants for the positions must have a Ph.D. in Molecular Biology/Biochemistry/Immunology or related field. Post doctoral experience is desirable but not required.

Protein Biochemistry Technician

Applicants must have a BS or MS degree, or the equivalent, and should have experience with the purification and manipulation of proteins, especially membrane proteins.

molecular diagnostics, inc

Nucleic Acid Biochemist

Applicants must have a Ph.D. and experience in basic chemical and biochemical methodologies. Experience with basic laboratory instrumentation. nucleic acid synthesis, purification and hybridization, chromatography. electrophoresis and radio isoptic analysis is desirable. The position involves development of innovative hybridization technologies.

Molecular Genetics Technicians

Applicants must have a BS or MS degree, or the equivalent, with at least 2 years' experience, and should be proficient in nucleic acids biochemistry and recombinant DNA methodologies.

Immunology/Cell Biology Technicians

Applicants must have a BS or MS degree or the equivalent. with at least 2 years' experience, and demonstrate proficiency in basic immunological methodology. including experience with basic laboratory instrumentation, protein purification, chromatography. electrophoresis and radioisotopic analysis.

Nucleic Acid Biochemistry Technicians

Applicants must have a BS, MS, or equivalent, with at least 2 years' experience, and proficiency in basic chemical and biochemical methodologies. Experience with basic laboratory instrumentation. nucleic acid purification and hybridization, chromatography, electrophoresis and radioisotopic analysis would be relevant.

The two companies are located in adjoining facilities in a sizable, attractive, and well-equipped facility, 10 minutes from New Haven and 90 minutes from New York City.

Applicants should forward a curriculum vitae along with a statement of research interest and capabilities in confidence to: Research Directors, Molecular Diagnostics, Inc./Molecular Therapeutics, Inc., 400 Morgan Lane, West Haven, CT 06516.

An Equal Opportunity Employer M/F

IMMUNOLOGY

Otsuka, Pharmaceutical Co., Ltd., one of Japan's largest pharmaceutical companies, has recently finished construction of its Maryland Research Laboratories a short distance from the NIH. We are seeking to staff our Immunology Department with individuals interested in developing an understanding of the molecular bases of autoimmune disease.

Scientists at the M.S. and postdoctoral levels are being sought; the latter are expected to have a significant publication record in peer-reviewed journals.

Experience in any of the following areas would be desirable:

- B-cell differentiation
- Ig secretion
- Macrophage protease secretion
- Lymphokine receptors

Candidates will be expected to interact closely with members of the Molecular and Cell Biology departments. Please submit a C.V. and the names of several references to:

> Dr. Walter Newman Immunology Department Otsuka Pharmaceutical Co., Ltd. Maryland Research Laboratories P.O. Box 4165 Rockville, MD 20850

> > DISUKA DI

"Otsuka, people creating new products for better health worldwide." An Equal Opportunity Employer

DIRECTOR EARTH SYSTEM SCIENCE CENTER College of Earth and Mineral Sciences The Pennsylvania State University

Applications and nominations are invited for the position of Director of an Earth System Science Center being established within the College. The research efforts of the Center will focus on a holistic view of global phenomena and evolution, emphasizing planetary scale processes and their interactions on time scales varying from millions of years to decades or less. Human interactions with the Earth System will be included. The multidisciplinary research of the Center will integrate scientific studies of the atmosphere, hydrosphere, lithosphere, biosphere, and cryosphere already represented in the Departments of Geosciences, Meteorology, and Geography and develop other capabilities as required.

The Center will be supported vigorously by the College and the University. The Director will develop a staff of established scientists who will have joint appointments with academic departments, senior visitors, postdoctoral scientists, graduate fellows, and technical assistants. The Center will draw on the talents of the College and a number of new appointments to the College faculty are anticipated. Substantial support will be provided with university funds.

The Director must have an outstanding record of scientific accomplishment and leadership with broad interdisciplinary experience, including participation in the forums in which national science policy and priorities are established. It is expected that the Director will have the scholarly credentials required for appointment to the faculty of one of the related academic departments in the College. The successful applicant should have the demonstrated ability to attract human and financial resources at the levels anticipated for the Center and to guide multidisciplinary research at an advanced level. The Director must also be an articulate and enthusiastic advocate for the Center and its activities.

This position is available immediately and will be filled as soon as possible. Applications will be reviewed commencing on April 1, 1986 and the search will continue until a suitable Director is found. Applications and nominations, accompanied by resumés and other supporting material should be submitted to:

> Prof. Shelton S. Alexander, Chairman Search Committee for the Earth System Science Center Director 416 Walker Building The Pennsylvania State University University Park, PA 16802

*The Pennsylvania State University is an affirmative action/equal opportunity employer.

Integrated Genetics is a leading biotechnology firm specializing in the health care field with emphasis on DNA probe diagnostic technology and production of complex therapeutic proteins.

Project Leaders

Detection Systems Protein Engineering

Challenging opportunities exist for Senior Scientists to assume project leadership in 2 key areas of research.

IG's non-isotopic detection program requires an experienced, self-motivated Senior Scientist with a proven track record in the development of sophisticated and innovative detection systems for diagnostic assays. The successful applicant will have a Ph.D. with emphasis in biochemistry and enzymology and 3-5 years of hands-on industrial experience in assay development. A background in immunology, immunoassay, and DNA probe technology would be advantageous.

The successful candidate will lead the development of second generation therapeutic proteins and have a Ph.D. in Molecular Biology, 3-5 years' experience which includes leading a research team, a proven record of innovative research in several of the following: protein structure-function relationships, protein folding, <u>in vitro</u> mutagenesis, and cardiovascular proteins.

Research Associates

Hemopoietic Growth Factors Fertility Hormones Protein Engineering Diagnostics Development

Duties will include planning, performing, and evaluating experiments as a member of a small project team. Opportunities exist for Scientists with a B.S./M.S. and 2-4 years of experience in the following areas. Successful applicants will:

Develop sensitive and rapid biological assays for new hemopoietic growth factors. Experience with clonal assays in semi-solid media, RIA and radioreceptorassays, growth factor binding and general tissue culture procedures is desirable.

Take responsibility for the cloning, genetic engineering and recombinant DNA experiments in our Fertility Hormones project. The ability to work independently is essential.

Perform Protein Engineering experiments involving expression of modified therapeutic proteins and animal studies. At least 1 year of laboratory experience is required and a knowledge of molecular biology is desirable.

Assist in research and development of diagnostic assays. Experience in nucleic acid hybridization, enzyme or immunoassay detection systems is required.

Integrated Genetics offers an attractive compensation and benefits package. Please meet with us at the ASM or forward your resume to: Elaine Rosenberg, Director of Human Resources.



Integrated Genetics, Inc. Dept. S-321 31 New York Avenue Framingham, MA 01701

An Equal Opportunity Employer

Research Scientists

Schering-Plough is a worldclass corporation that develops and markets a broad spectrum of pharmaceuticals, cosmetics, animal health and personal care consumer products. We offer challenging assignments in Pharmacology and Biomedical Engineering to professionals qualified as:

Section Leader—

Cardiovascular Pharmacology

Will perform research in the areas of Hypertension, Hemodynamics, Electrophysiology and/or Vascular Smooth Muscle Pharmacology. Qualifications must include at least 5 years of postdoctoral experience as a Cardiovascular Pharmacologist/Physiologist, strong record of publication, and sufficient organizational/communications skills to direct a group of scientists.

Senior Scientist-

CNS Pharmacology

Will perform research on behavioral effects of several classes of novel, centrally active drugs. Must have a PhD, preferably several years in Pharmacology or Psychopharmacology, and background in both operant and non-operant methods for assessing drugs. Knowledge of dopaminergic systems and behavior, use of primates, and SKED programming very useful—as is good verbal/writing ability.

Senior Biochemist

(Protein Chemistry)

Will be responsible for purification and physicochemical characterization of proteins. As a member of our Protein Chemistry Department, you must have a PhD and preferably a background in conformational analysis.

Post Doctoral Fellow

We have a fellowship available in our Department of Allergy and Inflammation to study lymphocytes and T cell clones that are exposed to natural and rDNA produced lymphokines and other immunoregulatory substances. The successful applicant should have training in cell biology or membrane biochemistry. Experience in cell culture, receptor biology and immunology is desired.

Salaries will be fully competitive. For prompt, fully confidential consideration, please send curriculum vitae to: Mr. Louis De Martino, Schering Research, Box DD85-30, 60 Orange Street, Bloomfield, NJ 07003.



Equal Opportunity Employer, m/f.

RESEARCH SCIENTIST

BioTechnica International, Inc., a company specializing in the development of nextgeneration technologies in the areas of microbial production systems, biochemical engineering, and agricultural biotechnology, has openings at its Cambridge, Massachusetts facility for highly motivated Research Scientists. BTI is seeking a Scientist with expertise in molecular genetics and DNA cloning to work on gene expression in **B. subtilis** and other related organisms. A Ph.D. degree is required.

BTI offers highly competitive salaries, excellent employee benefits, and opportunities for professional growth in a stimulating and productive environment. Please send a letter of application referring to position number **RS 12**, with a resume and the names of three references by April 30, 1986, to:

Personnel Department BioTechnica International, Inc. 85 Bolton Street Cambridge, Massachusetts 02140

RESEARCH SCIENTISTS POST DOCTORAL M.S.

Merck Sharp & Dohme Research Laboratories is currently searching for several Post Doctoral and M.S. level Scientists to staff the newly created Department of Biological Chemistry.

Duties will involve performing fundamental and basic research activities in the cardiovascular and calcium metabolism areas as well as other new therapeutic areas of biochemical research.

Candidates should possess training and/or experience in one of the following areas: (1) protein isolation and structural determination; (2) molecular biology, and (3) monoclonal antibody production.

You will find a stimulating and challenging scientific environment within our laboratories as well as excellent salary and benefits programs. Our modern research facilities are located 25 miles northwest of Philadelphia.

> Please reply in complete confidence to: Jacques P. Kueny MERCK SHARP & DOHME

RESEARCH LABORATORIES West Point, PA 19486

EEO/AA/VH EMPLOYER

Merck & Co., Inc.

NATIONAL INSTITUTES OF HEALTH PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES

Opening Date: March 1, 1986 / Closing Date: March 31, 1986 (All applications must be postmarked before closing date)

DIRECTOR, NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

The National Institutes of Health invites nominations and applications for the position of Director, National Institute of Diabetes and Digestive and Kidney Diseases, (NIDDK). This Institute conducts, fosters, and supports research and research training on the prevention, management, and cure of diabetes and related endocrine and metabolic diseases; kidney, urologic and blood diseases; and digestive diseases. Programs encompass intramural laboratory research and extramural (grants and contracts) activities in fundamental diabetes, digestive and kidney disorders.

This is a Civil Service position in the Senior Executive Service (SES), with a salary range from \$61,296 to \$68,700 per annum depending on qualifications. Candidates may be eligible for Physicians Comparability Pay up to \$10,000 per year. Alternately, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service. The SES individual selected, if not presently in the SES, must serve a one-year probationary period.

The mandatory qualifications are: (1) meet the minimum educational requirements for Medical Officer, GS-602, or Health Scientist, GS-601, or equivalent combination of experience and training, which demonstrates a broad knowledge and understanding of major public health problems; and (2) have research experience and knowledge of research programs in one or more areas related to diabetes, digestive and kidney disorders. In addition, candidates must meet the following managerial/executive qualifications: experience in the leadership/management of a basic or clinical research program, demonstrating competence to assume leadership responsibilities in: (1) assuring that national and agency goals and priorities are considered in carrying out

the functions and responsibilities of the organization; (2) establishing and maintaining relationships with key individuals and groups outside the organization; (3) directing and guiding programs and projects, including long-term and short-term planning and establishing objectives and priorities; (4) establishing procedures for the development and defense of the organization's budget, and allocating fiscal and personnel resources to support program implementation; (5) developing processes and overseeing activities to assure the fair and equitable employment of qualified persons, and implementing EEO/Affirmative Action objectives; (6) developing and implementing procedures for monitoring program performances, including periodic analysis and evaluation.

Candidates who meet the mandatory requirements will be further evaluated by the Search Committee on the following factors: additional managerial/executive qualifications; scientific reputation/peer recognition; training and education; honors and awards; and communications and interpersonal skills.

Applications (Personal Qualifications Statement, SF-171) are to be sent to Helen C. Stafford, Executive Secretary, Search Committee for Director, NIDDK, National Institutes of Health, Building 1, Room 19, Bethesda, Maryland 20892. For further information, contact her on (301) 496-4197. A current curriculum vitae and bibliography must accompany all applications. Applications of women and/or minority group members are especially solicited.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER.

FACULTY POSITIONS IN BIOMEDICAL ENGI-NERRING, BOSTON UNIVERSITY COLLEGE OF ENGINEERING, at the assistant/associate/full professor levels in expanding Department of Biomedical Engineering for September 1986 or January 1987. Applicants should have an earned doctorate, be committed to quality teaching at both undergraduate and graduate levels, and have the desire to develop strong research programs. Collaboration with the Boston University School of Medicine or other engineering departments may be facilitated through a joint faculty appointment. Candidates with backgrounds in image processing, computer science, chemical engineering, mechanical design, electronics, computer engineering, biomechanics and materials, or robotics are especially welcome. Opportunities for part-time (adjunct) faculty positions and for collaborative arrangements with nearby institutions involved in biomedical research and development are also available. Candidates should send résumé, list of publications, names and addresses of five references, and a brief statement of teaching and research interests to: Dr. Eugene Smithberg, Chairman Engineering Search Committee, College of Engineering, 110 Cummington Street, Boston, MA 02215. Boston University is an Equal Opportunity/Afirmative Action Employer.

FACULTY POSITION IN THE DEPARTMENT OF BIOMEDICAL AND ENVIRONMENTAL HEALTH SCIENCES SCHOOL OF PUBLIC HEALTH UNIVERSITY OF CALIFORNIA, BERKELEY

A tenure-track position in epidemiology at the assistant, associate, or full professor level (depending on qualifications) is available beginning in the fall 1986 or 1987. The applicant should have a Ph.D. in epidemiology, biostatistics, biomathematics, or equivalent, and expertise in substantive epidemiologic research with emphasis on study design, data management, and analysis. Duties include teaching epidemiological methods and supervising graduate student research.

For further information, or if applying, send curriculum vitae and names of three references to:

Warren Winkelstein, Jr., M.D., M.P.H. Program in Epidemiology Department of Biomedical and Environmental Health Sciences School of Public Health University of California Berkeley, Ca 94720

The University of California is an Affirmative Action Employer

FLOW CYTOMETER OPERATOR

The Department of Pathology, Medical College of Georgia, Augusta, Georgia, is seeking a qualified operator who will play a major role in the ongoing development of a flow cytometer service and research laboratory. The flow cytometer is a Coulter EPICS 741 with dye laser and EASY 88 computer. Salary is commensurate with abilities and experience.

Augusta is located approximately 150 miles east of Atlanta and 120 miles from the Atlantic Coast. The area has a population of 350,000 people. The climate is temperate, allowing year-round outdoor recreation. A 70,000-acre lake with 1,200 miles of shoreline is located 20 miles away and offers uncrowded and excellent fishing and boating opportunities. Augusta is a thriving financial and medical center with a proliferation of nonpolluting industry. Cultural opportunities abound including a local opera, ballet, symphony, and liberal arts college.

Please contact: William C. Allsbrook, Jr., M.D. Department of Pathology Medical College of Georgia School of Medicine Murphey Building, BF 210 Augusta, Georgia 30912

An Affirmative Action/Equal Opportunity Employer.

IMMUNOLOGIST, PH.D.: Seeking senior scientist with extensive experience in hybridoma/monoclonal antibody development for use in cancer therapy. Also will require skills in vaccine preparation, lymphokine, and cell-mediated cytotoxicity therapy. Position open in southeast Florida with private medical organization that emphasizes immunotherapeutic approaches to cancer therapy. Please send résumé to: Box 46, SCIENCE.

POSITIONS OPEN

JEFFERSON INSTITUTE OF MOLECULAR MEDICINE FACULITY POSITIONS IN MOLEC-ULAR BIOLOGY AND RELATED AREAS—The newly established Jefferson Institute of Molecular Medicine of the Thomas Jefferson University is seeking scientists to fill 12 tenure-track and senior tenured-faculty positions. Candidates will be selected primarily on the basis of their potential to establish outstanding research programs in general areas of molecular biology, molecular genetics, biochemistry, and related areas. Successful candidates will be provided with competitive salaries, memberships in a graduate program, newly renovated laboratory space, start-up equipment grants, and some continuing support for their research programs. Send curriculum vitae and letters of recommendation to: Dr. Darwin J. Prockop, Director, Jefferson Institute of Molecular Medicine, Thomas Jefferson University, 11th and Walnut Streets, Philadelphia, PA 19107. Equal Opportunity Employer.

FACULTY POSITION-VIROLOGY. A tenure-track position at the assistant or associate professor level is available in the Department of Microbiology. Candidates with demonstrated research accomplishments at the postdoctoral level in the study of the cellular and/or molecular biology of viruses are encouraged to apply. Excellent modern facilities and start-up support are available in a research oriented department with limited commitments for teaching medical and graduate students. Interested individuals should submit curriculum vitae, names and addresses of three references, a brief outline of research plans, and representative reprints describing past research by 1 April 1986 to: Dr. Thomas Albrecht, Department of Microbiology, The University of Texas Medical Branch, Galveston, Texas, 77550. An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

LABORATORY OF MOLECULAR BIOLOGY CLINICAL RESEARCH INSTITUTE OF MONTREAL, CANADA

A position is immediately available in the Laboratory of Molecular Biology of the Clinical Research Institute of Montreal. The person is to join a well-established group working on various aspects of retroviral oncogenesis, cell transformation, and spongiform encephalopathy. This individual will be mainly responsible for the molecular aspect of some projects. He or she should hold a Ph.D. and experience in molecular biology would be essential. Position has no teaching responsibilities but university affiliation for supervision of graduate students is possible. Interested applicants should send curriculum vitae, including a list of three referees to:

Dr. Paul Jolicoeur, M.D., Ph.D. Director, Laboratory of Molecular Biology Clinical Research Institute of Montreal 110 Pine Avenue West

Montreal(Quebec)Canada H2W 1R7

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada; however, others are strongly encouraged to apply.

MOLECULAR BIOLOGIST IN PLANT PA-THOLOGY at the University of Massachusetts at Amherst invites applications for a molecular biologist with research interests in plant pathology at the assistant or associate professor level (tenure track). The areas of research interest may include organization and expression of genes involved in disease resistance in plants; development of methods for transferring such genes into important agronomic plant species; development of disease resistance; and genetic modification of microorganisms so they can be used in biological management of plant diseases. A Ph.D. is required. Postdoctoral experience is desirable. Teaching responsibilities will include a graduate course related to the expertise of the applicant. Salary commensurate with experience. Applications will be accepted postmarked before 15 April 1986. Please send a letter of application stating research interests, curriculum vitae, transcripts, and the names of four persons to be contacted as references to: Dr. George N. Agrios, Search Chairman, Department of Plant Pathology, Fernald Hall, University of Massachusetts, Amherst, MA 01003. An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FIXED TERM LECTURER IN ZOOLOGY, DE-PARTMENT OF ZOOLOGY, FACULITY OF SCI-ENCE. Applicants for the position of lecturer should have a good research background in physiology or development, preferably of invertebrates. The appointee will be expected to teach courses emphasizing invertebrate physiology, participate in other, more general courses, and carry out research in invertebrate zoology. The post is for a period of 3 years and it is expected that the appointee will take up duty in September 1986. Closing date: 30 April 1986. Reference: FS.13.2.1. Salary will be in accordance with qualifications and experience within the range: lecturer \$27,233 to \$35,777 per annum. Grants toward travel, assistance with housing, superannuation. Maternity leave is available. The university reserves the right not to make an appointment or to make an appointment by invitation at any time. Applicants should quote the reference number when submitting applications to: R. V. Dubs, Registrar, GPO Box 4, Canberra, ACT, 2601 Australia. The University is an Equal Opportunity Employer.

LECTURER IN EXPERIMENTAL NUCLEAR PHYSICS

The University of North Carolina at Chapel Hill expects to have available a 1-year-term appointment beginning 1 July 1986. The position entails teaching upper-level undergraduate physics courses and working on ongoing nuclear physics research projects—delayed proton decay of ³³Ar, and also development of polarized beam and targets. A Ph.D. in physics is required. Completed application should be received by 21 April 1986. Please send résumé and three letters of reference to: Professor S. Choi, Chairman, Department of Physics and Astronomy, Phillips Hall 039A, University of North Carolina, Chapel Hill, North Carolina 27514. UNC is an Equal Opportunity/Affirmative Action Employer.

MICROBIOLOGIST — Full-time, tenure-track teaching position available 1 September 1986. Assistant professor level, Ph.D. required. Duties include teaching general and advanced undergraduate courses, and directing undergraduate research. Minorities and women are encouraged to apply. Applicants should submit a résumé, transcripts, and three letters of recommendation to: Chairman, Department of Biology, Central State University, Wilberforce, Ohio 45384. Application Deadline: 4 April 1986. Central State University is an Equal Opportunity Employer.

MICROBIOLOGIST/VIROLOGIST. The Biology Department of East Stroudsburg University invites applications for a tenure-track position at the rank of assistant professor beginning September 1986. The applicant should hold a doctorate with concentration in microbiology and expertise for the development of a course in virology. Background in the field of genetics is preferred, but not required. Responsibilities will include teaching of courses in microbiology, virology, introductory biology. Salary range from \$20,905 to \$23,048, based on experience. Send résumé, transcripts, and three letters of recommendation to: Dr. Raymond G. Milewski, Chairman, Search and Screen Committee, Department of Biology, East Stroudsburg University, East Stroudsburg, PA 18301. Deadline for applications is 22 April 1986.

East Stroudsburg University is an Affirmative Action/Equal Opportunity Employer.

PLANT PATHOLOGIST (epidemiologist). The Department of Plant Pathology, University of Massachusetts, seeks applicants for a 9-month, tenure-track research and teaching position at the assistant professor level. Salary is competitive and commensurate with qualifications and experience. Responsibilities include development of a research and teaching program in epidemiology. Interaction with integrated pest management programs is essential. Candidates must have a Ph.D. degree in plant pathology and be proficient in research techniques used in modern epidemiological studies. Postdoctoral experience desirable. Applicants should send a letter of application, statement of research interests, curriculum vitae, transcripts, and the names of four references by 15 April 1986 to: Dr. William J. Manning, Search Chairman, Department of Plant Pathology, Fernald Hall, University of Massachusetts, Amherst, MA 10003. An Afirmative Action/Equal Opportunity Employer.

SCIENCE, VOL. 231

MOLECULAR BIOLOGISTS. Postdoctoral and senior technical positions available immediately with Dr. Stuart Smith for studies on structure and regulation of certain mammalian genes. Experience with gene cloning and sequencing required. Salaries in range of \$22,000 to \$27,000 per annum. Send résumé and names of three references to: HUMAN RESOURCES, Ruth Robinson, Children's Hospital, 747 52nd Street, Oakland, CA 94609. Equal Opportunity/Affirmative Action Employtr.

MUSEUM RESEARCH SCIENTIST

The Research Laboratory of the Museum of Fine Arts, Boston, seeks a **research chemist** with experience in the examination of art objects and artifacts. Candidates should have a degree in analytical chemistry and have hands-on experience in applications of XRF, XRD, and AA. Experience in optical emission spectroscopy also helpful. Familiarity with analytical instrumentation per se, experience in a museum laboratory, and knowledge of the history of technology are important assets. Salary commensurate with experience and qualifications. Submit detailed curriculum vitae to: Sandra Matthews, Employment Manager, Museum of Fine Arts, 465 Huntington Avenue, Boston, MA 02115. An Affirmative Action/Equal Opportunity Employer.

ORAL MICROBIOLOGIST: University of Washington, School of Dentistry, primary faculty appointment in the Department of Oral Biology with an affiliate appointment in the Center for Research in Oral Biology. Candidates must have a Ph.D. degree or the equivalent in microbiology with a minimum of 1 year's experience, preferably in anaerobic periodontal microbiology. The position comprises 25 percent undergraduate and graduate teaching in oral microbiology, with an emphasis on coordinating the basic sciences and clinical aspects of microbiology within the dental school curriculum, and 75 percent research. Rank and salary are to be negotiated on the basis of previous experience. Full salary and research support can be provided initially, but the individual would be expected to obtain partial future support for research. A fully equipped laboratory for anaerobic work is available. We seek an individual who can build a nationally recognized program. For further information, please contact:

Dr. Murray Robinovitch Department of Oral Biology, SB-22 University of Washington Seattle, WA 98195

Deadline for applications is 15 June 1986. The University of Washington is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

PHYSICAL OCEANOGRAPHER: Search Extended. Old Dominion University's Department of Oceanography invites applications for a tenure-track faculty position in physical oceanography available fall 1986. Rank and salary will be commensurate with qualifications. Applicants must have an earned doctorate and a history of successful research efforts. Candidates should have an established record in physical oceanographic research; preferably with interest in theoretical aspects. The successful applicant is expected to continue sponsored research, supervise graduate students, and teach courses. Physical oceanography has been singled out by the university for special emphasis and we anticipate further growth in the area. Send résumé, names of three refeences, and a brief description of research interests by 21 April 1986 to: Dr. Larry P. Atkinson, Physical Oceanoography Search Committee, Department of Oceanography, Old Dominion University, Norfolk, VA 23508. Telephone: 804-440-4285. Old Dominion University, a state-supported institution, is an Affirmative Action/Equal Opportunity Institution.

PLANT ECOLOGIST/GEOMORPHOLOGIST. Research associate position available 15 May 1986 for study of streamside vegetation and valley floor geomorphology in the Cascade Mountains, Oregon. Ph.D. required, preferably with emphasis in plant ecology or geomorphology. Two-year appointment at \$20,000 per annum. Applications close 15 April 1985. Send résumé, transcripts, and three letters of reference to: Dr. Logan Norris, Head, Department of Forest Science, Oregon State University, Corvallis, OR 97331. An Equal Opportunity/Affirmative Action Employer.

21 MARCH 1986

THE FIRST WORD IN... DIAGNOSTIC R & D

Advanced scientific research and development has enabled Abbott Laboratories to become the world leader in the rapidly expanding field of medical diagnostics. Our success in diagnostics has made this the fastest growing segment of our \$3.3 billion corporation and has created the following positions.

CHEMIST

This position researches novel solid state films for use in test kits. Research involves design and construction of analytically active surfaces. Using various analytical and electrochemical techniques, these surfaces are analyzed, and usage specifications are selected for product concepts.

We require a Ph.D. in Bioanalytical/Electrochemistry or Materials Science, or equivalent work experience, followed by original work background in the development of various surface states for inorganic systems. You must have knowledge of analytical chemistry/electrochemistry and excellent communications skills. It would be desirable to have supervisory experience, and knowledge of membrane/diffusional science would be an asset.

IMMUNOLOGISTS

Two positions currently available requiring a Ph.D. in Immunology. One position requires 1-2 years postdoctoral experience, the other 3-5 years postdoctoral experience. A background in clinical immunology, immunocompetence or anti-viral immunity is needed for both.

In addition to our advanced scientific environment, Abbott offers excellent salaries and full benefits including stock purchase plan and profit sharing. Our headquarters is located in an attractive suburban setting on the Lake Michigan shoreline, just 30 miles north of Chicago. For confidential consideration, please send your resume with salary history to: **Sue Hart-Walley/Corporate Placement, Dept. S/3-21.** Abbott is an Affirmative Action Employer.



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RESEARCH SCIENTISTS/ASSOCIATES SPECIALTY CHEMICALS

An industry leader in advanced biotechnology **AMGEN** develops products for a wide variety of applications, including **SPECIALTY CHEMICALS.** Recent development progress has created opportunities for highly qualified **Research Scientists** and **Research Associates.**

RESEARCH SCIENTISTS will be involved in molecular biology and genetic enhancement of bacterial strains which biosynthesize specialty chemicals. In addition to a Ph.D. degree, several years of related postdoctoral experience in one or more of the following areas of expertise is required:

- · Molecular biology or enzymology of cofactors
- Multi-enzyme pathways

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- cDNA cloning and expression
- Bioorganic chemistry

RESEARCH ASSOCIATES should possess a BS/BA or MS preferably in biochemistry, genetics, or biology, and have several years of research experience.

Amgen is located in an attractive community about an hour northwest of Los Angeles, and offers a stimulating and challenging scientific environment, as well as attractive compensation and benefits program.

Qualified candidates should direct a resume, including a list of publications, and three references to: William Puchlevic, Dept. 101, AMGEN, 1900 Oak Terrace Lane, Thousand Oaks, CA 91320

An Equal Opportunity Employer

PATHOLOGIST — The University of Texas Health Center at Tyler. The Department of Pathology is seeking a full-time faculty member at the assistant or associate professor level. Candidates must have an M.D. degree and be Board-eligible or -certified in anatomic pathology and clinical pathology. A strong background in blood banking, coagulation, and hematology would be useful. Limited opportunities for teaching and research exist. Please submit curriculum vitae and names and addresses of three references to: L. R. Hieger, M.D., Department of Pathology, The University of Texas Health Center at Tyler, P.O. Box 2003, Tyler, TX 75710.

PHARMACOLOGY FACULTY POSITION

A tenure-track faculty position at the Assistant Professor level is available effective 1 July 1986. The successful candidate will be expected to develop a productive, independently funded research program as well as participate in the graduate and teaching activities. Curriculum vitae, statement of research plans, and names of three references should be sent by 1 May 1986 to Dr. Jean D. Deupree, Chairman of Search Committee, Department of Pharmacology, College of Medicine, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, NE 68105. The University of Nebraska is an Affirmative Action/Equal Opportunity Employer.

CENTERS FOR DISEASE CONTROL MUREX VISITING SCIENTIST PROGRAM

The Murex Corporation is seeking a **POSTDOCTOR-AL FELLOW** for the Murex Visiting Scientist Program. The 1-year position would provide a competitive salary and benefits as a Murex employee. The visiting scientist would conduct microbiologic research in the laboratories of scientists at the Centers for Disease Control. Applicants must have earned a doctoral degree and have experience in molecular biology or immunology. Applicants should send their curriculum vitae and names, addresses, and telephone numbers of three references to: Albert Balows, Ph.D., 1-6108, CID, Centers for Disease Control, Atlanta, GA 30333. The Murex Corporation is an Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately in NEUROIMMUNOLOGY. We are defining the molecular bases of the immune response to neural antigens, with particular reference to the modulation and function of the major histocompatibility complex. The approach is multidisciplinary. Experience in immunocytochemistry, neuroanatomy, or developmental biology is desirable. Send résumé and names of references to: Dr. Lois Lampson, Department of Anatomy, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6058. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available to study human tissue factor and its role in extrinsic blood coagulation. Ph.D. in biochemistry required, with preference given to applicants with experience in either protein chemistry or membrane biochemistry. Competitive salary. Send curriculum summary of research experience, and names of three references to: Dr. Walter Kisiel, Department of Pathology, University of New Mexico School of Medicine, Albuquerque, NM 87131.

POSTDOCTORAL POSITION to study molecular and cellular aspects of hemostasis/thrombosis. Projects include characterizing the platelet von Willebrand factor receptor with monoclonal antibody probes and DNA closing techniques and identifying effects of the fibrinolytic system on platelet receptor function. This is an NIH-supported position beginning 1 July 1986. Send curriculum vitae and names of three references to: Dr. Burt Adelman, Division of Hematology/Oncology, Medical College of Virginia, Box 230, Richmond, VA 23298.

POSTDOCTORAL POSITION to study the biochemical regulation and interactions of the c-sre protooncogene product in mammalian cells. Experience in protein molecular biology desirable. Submit résumé and three references to: Dr. David Shalloway, Department of Molecular and Cell Biology, The Pennsylvania State University, Room 406 South Frear, University Park, PA 16802. Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL FELLOW/CONTROLLED-RELEASE DRUG DELIVERY. A position will be available summer/fall 1986 for a Ph.D. to study drug delivery implants for cardiovascular diseases [see Science 228, 190–192 (1985)] at University of Michigan Medical School and College of Pharmacy. Experience in pharmacy, pharmacology, or polymeric sciences is desirable. Salary is competitive and appointment is renewable Submit curriculum vitae and list of three references to: Dr. Robert J. Levy, c/o Dr. Amnon Rosenthal, Chief, Cardiology Division, C. S. Mott Hospital, University of Michigan Medical Center, Ann Arbor, Michigan 48109. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available to study immunologic aspects of human lung disease. Background in cellular immunology and T cell cloning preferred. Send curriculum vitae and names of three references to: Ronald P. Daniele, M.D., Director, Pulmonary Immunology Training Program, 807 East Gates, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104. Equal Opportunity Employer.

POSTDOCTORAL POSITION. Biochemist or microbiologist to study the biosynthesis and control of neutral lipid synthesis in microalgae. The position, which is funded by the Solar Energy Research Institute, is renewable and available immediately. Experience in lipid analysis and radiochemistry desirable. Send résumé, reprints, and the names of three referees to: K. E. Cooksey, Department of Microbiology, Montana State University, Bozeman Montana, 59717. Telephone: 406-994-6136.

POSTDOCTORAL POSITION available to study muscle fiber types—development, and neuronal regulation of myosin expression; methods include immunocytochemistry and electron microscopy. Background in muscle biology desirable. Send curriculum vitae and names of three references to: Dr. G. F. Gauthier, Department of Anatomy, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, Massachusetts 01605.

An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION to study the immune response to toxoplasma. We are seeking an individual with background in immunochemistry, cellular immunology, or microbiology (infectious disease). Candidates should have either M.D./Ph.D. and do not necessarily need previous experience in parasitology. Position is minimum of 2 years and begins 1 July 1986. Salary competitive. Send résumé to: Lloyd Kasper, M.D., Department of Medicine (Neurology), Dartmouth Medical School, Hanover, NH 03756.

POSTDOCTORAL POSITION available to study the regulation of system-specific surface proteins in the nervous system. Monoclonal antibody, biochemistry cell culture, and morphological methods used. A strong interest in neural development and membrane proteins desirable. Send curriculum vitae, a brief description of research interests, and the names of three references to: Dr. P. Levitt, Department of Anatomy, Medical College of Pennsylvania, EPPI Division, 3200 Henry Avenue, Philadelphia, PA 19129. Equal Opportunity Employer, M/F.

POSTDOCTORAL POSITION (Pharmacology/ Toxicology) to study the hepato- and nephrotoxic properties of chemical metabolites. Experience in biochemical pharmacology, immunology, and/or drug metabolism desirable. Send résumé and the names and addresses of three references to: Gary O. Rankin, Ph.D., Chairman, Department of Pharmacology, Marshall University School of Medicine, Huntington, WV 25704–2901. Available 1 July 1986. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS (two) to perform and develop computer analyses of nucleic acid and protein sequences. Salary approximately \$20,000. Reply with curriculum vitae (describing programming skills and biological interests) and have two letters of recommendation sent to: Dr. Michael S. Waterman, Department of Mathematics, University of Southern California, Los Angeles, CA 90089–1113. The University of Southern California is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION available with a research group involved in a multidisciplinary study of prostate cancer. Primary focus is on molecular and cellular biology of prostate epithelial cells. Background in molecular techniques desirable. Send curriculum vitae and the names and addresses of three references to: Dr. Donna Peehl, Division of Urology, Stanford Medical Center, Stanford, California 94305.

POSTDOCTORAL POSITIONS

Lipids-Atherosclerosis-Nutrition Training Program funded by (NHLBI). Postdoctoral traineeships are available for research and training in areas of (i) lipoprotein structure and metabolism, (ii) development of cholesterol and bile acid homeostatic mechanism, (iii) pathogenesis of atherosclerosis, (iv) role of branched chain amino acids in lipid metabolism and nutrition, (v) lymphocyte physiology and lipoproteins, and (vi) epidemiology of hyperlipoproteinemia. Faculty includes: W. F. Balistreri, B. N. Campaigne, J. A. K. Harmony, J. E. Heubi, J. E. Fischer, C. J. Glueck, R. L. Jackson, J. M. Vander Bel-Kahn, E. A. Stein, M. T. R. Subbiah, and R. C. Tsang. Candidates with a Ph.D. degree in biomedical fields and those with M.D. degree, with appropriate research experience, are eligible to apply. Applicants must be U.S. citizens or hold an immigrant visa. Send curriculum vitae with three letters of recommendation indicating the special area of research interest to: Dr. M. T. R. Subbiah, Program Director, University of Cincinnati Medical Center, 234 Goodman Street, K-Pavilion, M.L. Number 540, Cincinnati, Ohio 45267.

POSTDOCTORAL POSITIONS—Openings are available for studies on protein targeting, gene expression, and mitochondrial membrane biogenesis in yeast. Candidates should have experience in one or more of the following areas: site-directed mutagenesis/recombinant DNA techniques; polyclonal antibody preparation/use; protein isolation/sequencing/synthesis/HPLC; polyclonal antibody preparation/use; isolation/construction/ analysis of yeast mutants. Send curriculum vitae and names of three references to: Dr. Robert O. Poyton, Department of Molecular, Cellular and Developmental Biology, Campus Box 347, University of Colorado at Boulder, Boulder, CO 80309–0347. The University of Colorado is an Equal Opportunity Employer.

POSTDOCTORAL POSITION to direct monoclonal antibody preparation against viruses and to study pathogenesis of the rotavirus infection. Experience with monoclonal antibody and ELISA necessary, background in molecular virology preferred. Position available from April 1986 for 3 years. In accordance with Canadian immigration regulations, this notice is directed first to Canadian citizens and permanent residents. Send curriculum vitae and names of three references to: Dr. Arnost Cepica, Atlantic Veterinary College, University of Prince Edward Island, 550 University Avenue, Charlottetown, P.E.I., Canada, C1A 4P3.

TWO POSTDOCTORAL POSITIONS available on a multidisciplinary, NIH-funded training grant in membrane biology. Possible areas of study include: transport mechanisms of hexoses, antimetabolites, and ions in isolated cells and tight epithelia; structure and function of membrane receptors and enzymes; and network thermodynamic computers simulations of transport phenomena. Send résumé and names of three references to: Dr. I. David Goldman, Box 230, Medical College of Virginia Station, Richmond, VA 23298.

POSTDOCTORAL—RESEARCH ASSISTANT PROFESSOR to study the biochemistry and differentiation of the skeletal muscle outer membrane and myogenic lineage using monoclonal antibodies and recombinant DNA. Teaching to include delivery of immunology laboratories to first-year medical students. Experience in immunology, membrane biochemistry, and recombinant DNA preferred. Initial appointment for 1 year, but with potential for long-term appointment; to start summerfall 1986, salary based on experience. Send curriculum vitae and names of three references before 1 May 1986 to: Dr. Stephen Kaufman, University of Illinois, College of Medicine, Department of Microbiology, 131 Burrill Hall, 407 South Goodwin, Urbana, Illinois 61801; telephone: 217-333-3521. University of Illinois is an Affirmative Action/Equal Employment Employer.

PhD Biological Scientists

Pfizer Central Research has openings for PhD Scientists in its Metabolic Disease Drug Discovery programs. The positions require individuals with strong postdoctoral training in biochemistry, and with a knowledge of mammalian physiology, pharmacology, and/or cell biology. Previous experience in the areas of tissue culture techniques, growth factor(s), stimulus/receptor coupling, metabolic effects of oxygen derived free radicals and membrane structure and function will prove advantageous. You will be part of discovery teams seeking new agents for several important disease states including the microvascular complications of diabetes, atherosclerosis and gastrointestinal ulceration. Very importantly, you must display the necessary creativity to carry out innovative research focused on elucidating new pharmacological approaches to the above diseases.

These positions offer excellent opportunities for scientists with initiative to work in entrepreneurial project teams, yet gain experience in the wider field of innovative pharmaceutical research in a large successful company. Excellent equipment and support systems are available at our newly constructed research facilities. The publication of important findings and interaction with external scientists are actively encouraged and facilitated by the proximity of the Pfizer laboratories to many top New England universities and medical centers. In addition we offer a competitive compensation, benefit and relocation package, as well as the opportunity to live in one of the most attractive shoreline areas of Connecticut. Please send resume and brief description of research interests to: Jerry K. Larson, PhD, Manager of Employment, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



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Research Scientists and Managers Praxis Biologics positions you for a key role in creating vaccines and other biologicals. Praxis Biologics is poised for very substantial growth. We were founded in 1983. Our first product is already helping save children from meningitis caused by Haemophilus influenzae b bacteria. We are now readying other products for the U.S. market. If you are interested in being an important part of a fast-paced company of prominent scientists, physicians, and other professionals, it's time we met to brief you on the challenges we offer in the following areas: Bacteriology Carbohydrate Chemistry Virology Analytical Chemistry Immunology QC and Regulatory Affairs Cell Biology Clinical Research Molecular Biology Salaries will be appropriate to academic and professional qualifications. For prompt, fully confidential consideration, please send your resume/curriculum vitae to: Praxis Biologics, Human Resources Department, 300 East River Road, Rochester, NY 14623. B() ()T An equal opportunity employer, m/f. HOFFMANN-LA ROCHE Scientists The Roche Research Community... a shared quest for discovery. Pursuing the discovery of new pharmaceuticals to overcome healthcare problems is the shared goal of the Roche research community. The dedicated efforts of our scientific professionals have led to major advances for a healthier tomorrow We're currently seeking MS level biochemists for our prestigious Bioprocess Development Group. You will be responsible for the isolation and purification of recombinant proteins from bacteria/yeasts using classical as well as state-of-the-art techniques You must have hands-on experience with protein immobilization methods, SDS-PAGE, western blot and HPLC of proteins. Ability to plan, prioritize and design experiments is essential. The team-spirited individuals we need will be well organized at the laboratory bench, possess excellent analytical, verbal and written skills for communicating experimental results, and be flexible in accepting new assignments. Discover your true potential with Roche, where the environment is conducive to personal and professional achievement, salaries are fully commensurate with background and ability, and benefits are excellent. Please send your resume with current salary information to: Mr. Norm Brown



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Syva, a subsidiary of Syntex, is a leader in medical diagnostics-developing, manufacturing and marketing tests to diagnose infectious diseases and to detect and quantify clinically significant substances in patients' body fluids. We provide opportunities for innovative research few biotechnology companies can match... in some of the finest facilities in the country.

Currently, we have a number of opportunities at all levels in the following disciplines:

O Biochemistry

O Organic and

O Nucleic Acid Surface Chemistry Probes

O Microbiology

Senior chemists, microbiologists, biochemists and molecular biologists are needed for laboratory work related to new assay development. Some positions involve supervisory responsibilities. For these key openings, a PhD or equivalent is essential as is postdoctoral and/or industrial experience.

We are also looking for postdoctoral fellows and BS/MS scientists with strong analytical capabilities. Positions are available in organic chemistry, immunochemistry, biochemistry, clinical microbiology, and assay development. Some positions

require experience with infectious diseases.

Syva offers an attractive benefits package, including an incentive bonus program. Please send your resume to: Syva, Dept. DP/S, Professional Staffing, P.O. Box 10058, Palo Alto, CA 94303. An equal opportunity employer.



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PRESIDENT

THE ACADEMY OF NATURAL SCIENCES **OF PHILADELPHIA**

The trustees of this institution, founded in 1812 and one of the oldest natural history museums in the Western Hemisphere, invite applications for the position of President of the Academy. The President, as Chief Executive Officer, is responsible for the effective governance of this prestigious museum and related entities.

Reporting to the President are Environmental Research. Systematics, Museum, Library, Development, and Finance and Administration.

The Academy operates 3 research centers/stations, has a collection of over 20 million biological specimens, and its library contains 200,000 volumes. The annual operating budget is \$8 million, there are 225 employees, and a \$12 million endowment.

Candidates should have the following qualifications:

· Demonstrated leadership and an ability to work with diverse constituencies

- A Ph.D. or evidence of equivalent academic attainment in the Natural Sciences or Environmental Disciplines.
- Proven administrative and financial skills in the administration of complex organizations.
- · Experience in major fund raising.

Letters of nomination or application, coupled with resume/vitae and information on current compensation should be submitted in confidence no later than May 15, 1986 to:

BOX 40 SCIENCE

Resumes will neither be acknowledged nor returned.

The Academy of Natural Sciences of Philadelphia is an equal opportunity employer.

NATIONAL INSTITUTES OF HEALTH **PUBLIC HEALTH SERVICE** DEPARTMENT OF HEALTH AND HUMAN SERVICES

Opening Date: March 1, 1986 / Closing Date: March 31, 1986 (All applications must be postmarked before closing date)

DIRECTOR, NATIONAL INSTITUTE OF ARTHRITIS AND MUSCULOSKELETAL AND SKIN DISEASES

The National Institutes of Health invites nominations and applications and responsibilities of the organization; (2) establishing and maintainfor the position of Director, National Institute of Arthritis and Musculo-skeletal and Skin Diseases, (NIAMS). This Institute conducts, fosters, and supports research and research training on the prevention, man-agement, and cure of arthritis, musculoskeletal and skin diseases. rograms encompass intramural laboratory research and extramural (grants and contracts) activities in fundamental arthritis and musculoskeletal and skin diseases.

This is a Civil Service position in the Senior Executive Service (SES), with a salary range from \$61,296 to \$68,700 per annum depending on gualifications. Candidates may be eligible for Physicians Comparability Pay up to \$10,000 per year. Alternately, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service. The SES individual selected, if not presently in the SES, must serve a one-year probationary period.

The mandatory qualifications are: (1) meet the minimum educational requirements for Medical Officer, GS-602, or Health Scientist, GS-601, or equivalent combination of experience and training, which demonstrates a broad knowledge and understanding of major public health problems; and (2) have research experience of research pro-grams in one or more areas related to diabetes, digestive and kidney disorders. In addition, candidates must meet the following managerial/ executive qualifications: experience in the leadership/management of a basic or clinical research program, demonstrating competence to assume leadership responsibilities in: (1) assuring the national and agency goals and priorities are considered in carrying out the functions

ing relationships with key individuals and groups outside the organization; (3) directing and guiding programs and projects, including long-term and short-term planning and establishing objectives and priorities; (4) establishing procedures for the development and defense of the organization's budget, and allocating fiscal and personnel resources to support program implementation; (5) developing processes and overseeing activities to assure the fair and equitable employment of qualified persons, and implementing EEO/Affirmative Action objectives; (6) developing and implementing procedures for monitoring program performances, including periodic analysis and evaluation

Candidates who meet the mandatory requirements will be further evaluated by the Search Committee on the following factors: additional managerial/executive qualifications; scientific reputation/peer recognition; training and education; honors and awards; and communications and interpersonal skills.

Applications (Personal Qualifications Statement, SF-171) are to be sent to Helen C. Stafford, Executive Secretary, Search Committee for Director, NIAMS, National Institutes of Health, Building 1, Room 19, Bethesda, Maryland 20892. For further information, contact her on (301) 496-4197. A current curriculum vitae and bibliography must accompany all applications. Applications of women and/or minority group members are especially solicited.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

POSTDOCTORAL RESEARCH ASSOCIATE

Position available to work on development of contraceptive vaccine. Strong background in peptide purification (HPLC) and/or immunochemistry desirable. Salary: \$18,000 to \$22,000. Send curriculum vitae and names of three references to: Dr. Erwin Goldberg, Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, Evanston, IL 60201. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE to study ionizing radiation-induced DNA base damage in vitro and in vivo. Recent Ph.D. in radiation biology, chemistry, biochemistry, or related area preferred. Expertise in the isolation and identification of compounds using HPLC, NMR, TLC, and ELISA assays preferred. Contact: H. G. Claycamp, Radiation Research Laboratory, 14 Medical Laboratories, College of Medicine, University of Iowa, Iowa City, IA 52242; telephone: 319-353-3747. The University of Iowa is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE-NEUROPHYSIOLOGY available immediately to study cellular and synaptic mechanisms of action of convulsants (especially clostridial neurotoxins, including tetanus toxin) using dissociated neurons in tissue culture. Experience with intracellular recording techniques required. Competitive salary, option for additional years. Submit curriculum vitae and three references to: Dr. Gregory K. Bergey, Department of Neurology, University of Maryland School of Medicine, 22 South Greene Street, Baltimore, Maryland 21201. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL

Postdoctoral research position in molecular parasitology to conduct research on the molecular biology of *Giardia lamblia*, the causative agent of giardiasis. Ph.D. required, experience with recombinant DNA technology is desired. Starting date 1 September 1986, salary is competitive. Applicants should send curriculum vitae with three letters of recommendation by 1 June 1986 to: Dr. Donald G. Lindmark, Chairman, Department of Biology, CLEVELAND STATE UNIVERSITY, 1983 East 24th Street, Cleveland, OH 44115. Equal Opportunity Employer, MIFIH.

MEDICAL PHYSICS DEPARTMENT, UNIVER-SITY OF WISCONSIN-MADISON—A RADIO-CHEMIST is needed to head a research program in the field of radiopharmaceutical chemistry, to develop imaging agents for positron emission tomography (PET). Assistant or tenured associate professor level, with some graduate-level teaching responsibilities. Resources include a new 11-MeV cyclotron, a clinical PET scanning facility, and a full supported radiochemistry laboratory. A Ph.D. in chemistry with several years of PET experience is preferred. Send curriculum vitae and statement of research interest to: R. J. Nickles, Medical Physics Department, 1530 Medical Science Center, 1300 University Avenue, Madison, WI 53706. Telephone: 608-262-2170. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE—Positions are open for individuals with expertise in molecular biology technology. The goals of the research are to clone the genes for peptides that activate spermatozoa. Salary will depend on qualifications and experience. Send inquiries and curriculum vitae to: David L. Garbers, Howard Hughes Medical Institute, Vanderbilt University Medical Center, 711 Light Hall, Nashville, TN 37232.

Ph.D. RESEARCH ASSOCIATE (instructor) with knowledge and publications in in vitro airway smooth muscle physiology, including electrophysiological techniques, in vitro pharmacology and immunophysiological techniques, as well as knowledge of basic techniques for performing isometric and force-velocity studies. Candidates will work with senior investigator in research and teaching. Prior publications and knowledge should deal specifically with all of the above and be specific for airway smooth muscle. Send curriculum vitae to: Dr. Alan Leff, Box 98, Department of Medicine, The University of Chicago, 5841 South Maryland Avenue, Chicago, IL 60637. Telephone: 312-962-1859. An Affirmative Action/Equal Opportunity Employer. **POSTDOCTORAL RESEARCHER.** Genecor, Inc., a joint venture of Genentech, Corning Glass Works, and A. E. Staley; specializing in industrial enzymes developed through biotechnology, has an exceptional opportunity for a postdoctoral researcher.

You will be based in the Tulsa area, working with a group of principal investigators, designing experiments and analyzing data. Responsibilities include microbiological analysis of collected samples, recording, and interpreting plate count numbers and fieldwork assignments.

Qualified candidates will possess a Ph.D. in microbiology or biological sciences and related research experience encompassing the bacterial identification and physiology. Approximately 30 percent fieldwork will be required. We offer an outstanding compensation package and the opportunity to make a significant contribution. Initial project will last approximately 18 months. Please forward your résumé to: Linda Fitzpatrick, GENEN-COR, INC., 180 Kimball Way, South San Francisco, CA 94080. An Equal Opportunity Employer.

RESEARCH ASSISTANT PROFESSOR position available immediately in Laboratory of Molecular Toxicology and Carcinogenesis to study mechanisms of metal carcinogenesis at the chromosome and/or gene level. Experience in chromosomal analysis, tissue culture, and molecular biology is preferred but not required. Salary dependent upon qualifications. Send curriculum vitae, three names of references, and reprints to: Dr. Max Costa, Department of Environmental Medicine, New York University Medical Center, 550 First Avenue, New York, NY 10016. An Equal Opportunity/Affirmative Action Employer.

NeoRx Corporation, a manufacturer of in vivo agents for cancer therapy, seeks experienced, motivated professionals in following disciplines: PROTEIN CHEMIST

Qualified candidate (Ph.D. in chemistry or biochemistry) must have extensive experience in protein purification, characterization, and modification. Background in synthetic organic chemistry also required. Experience

synthetic organic chemistry also required. Experience with preparative and analytical LC, radioisotopes, and analytical instrumentation desirable.

RADIOLABELING CHEMISTS

Experienced in radiolabeling proteins for in vivo applications.

IMMUNOLOGISTS/IMMUNOCHEMISTS

Individuals experienced in preclinical evaluation of monoclonal antibodies and immunoconjugates, performance of animal model trials of therapeutics and in vivo diagnostics, immunohistological techniques, and preparation of drug and toxin immunoconjugates.

Send résumés to: Personnel, NeoRx Corporation, 410 West Harrison Street, Seattle, WA 98119.

UNIVERSITY OF MONTREAL FACULTY OF VETERINARY MEDICINE RESEARCH ASSOCIATES

The Center for Research on Animal Reproduction (C.R.R.A.) has four positions available for research in the field of animal reproduction. The candidate should have 1 or 2 years of postdoctoral experience in electron microscopy, endocrinology, biochemistry, immunology, or molecular biology. The research program at the C.R.R.A. is oriented toward the establishment of pregnancy and factors leading to embrionic mortality in the large domestic animals. The successful candidates will be expected to establish their own research projects, related to the overall research program, and to apply for research grants. The applicants must be willing to gain a working knowledge of French within the first year. The initial engagement will be for 3 years. Qualifications: Ph.D. or the equivalent; a year or two of postdoctoral training would be an asset. Starting date: as soon as possible. Salary: commensurate with qualifications and experience. Closing date: 30 April 1986. Applicants should or research interests and three letters of reference to: Dr. Allan K. Goff, Center for Research on Animal Reproduction, University of Montreal, C.P. 5000, Saint-Hyacinthe (Québec), CANADA J2S 7C6.

In accordance with Canadian immigration requirements, this advertising is directed in priority to Canadian citizens and permanent residents.

POSITIONS OPEN

RESEARCH ASSOCIATE (Postdoctoral) in physical biochemistry, neurochemistry, and enzymology. Requires strong background in magnetic resonance (NMR, ESR) analysis of metal ion interactions with enzymes, distance measurements, ligand interactions. Opportunity to learn tissue culture, enzyme kinetics, histochemical and immunocytochemical techniques. Salary based on qualifications. Initial appointment for 1 year, renewable by mutual agreement. Deadline: 1 May 1986, or until suitable candidate is identified. Send curriculum vitae and names of three references to: **Professor F. C. Wedler, Althouse Laboratory Department of Molecular and Cell Biology, Pennsylvania State University, University Park, PA 16802.**

Affirmative Action/Equal Opportunity Employer

RESEARCH ASSOCIATE

Research associate, Laboratory for Information and Decision Systems, Massachusetts Institute of Technology (MIT), to participate in research program on distributed decision-making organizations. Ph.D. required with demonstrated credentials in cognitive psychology and mathematical modeling of human decision processes. Previous experience in the design and analysis of computer-aided experiments in information-processing and decision-making by small organizations, such as command and control ones, is highly desirable.

Please send two copies of résumé to: MIT Personnel Office, 77 Massachusetts Avenue (E19-239), Cambridge, MA 02139. Refer to position NUMBER R86-908.

MIT is an Equal Opportunity/Affirmative Action Employer.

THE UNIVERSITY OF CALGARY RESEARCH BIOCHEMISTRY

The University Biochemistry Group which comprises members of the Faculties of Medicine and Science offers an interdisciplinary environment for graduate and postdoctoral research in biochemistry, molecular biology, and biotechnology. Highly qualified students with training in biochemistry, chemistry, biology, or related disciplines may be admitted to programs leading to the M.Sc. and Ph.D. degrees. Research/teaching assistantships (\$8,775 to \$12,000 per year) are available from the university. Studentships (\$12,000 per year plus \$2,500 research allowance) and postdoctoral fellowships (\$22,000 per year plus \$5,000 research allowance) are available from the Alberta Heritage Foundation for Medical Research and may be applied for through The University of Calgary. Interested individuals should send curriculum vitae, which includes courses taken and grades obtained, and a statement of research interests to: Dr. F. F. Snyder, Chairman, Graduate Studies Committee, University Biochemistry Group, The University of Calgary, 2500 University Drive NW, Calgary, Alberta, Canada T2N 1N4.

RESEARCH INSTRUCTOR to participate in teaching dental and graduate students and to study the mechanisms of induction and regulation of IgA responses to microbial vaccines in mice, rats, and humans. Requires experience in cellular and humoral immunology, hybridoma technology, and general immunochemical techniques. Will be expected to initiate studies on host factors influencing collagen degradation and subsequent periodontal disease. Position available now to a D.D.S. with related research experience. Starting salary will be \$22,000 per year. Send curriculum vitae and three references by 4 April 1986 to: Dr. S. M. Michalek, Department of Microbiology, University of Alabama at Birmingham, University Station, Birmingham, Alabama 35294. An Equal Opportunity/Affirmative Action Employer.

RESEARCH TECHNICIAN MOLECULAR NEUROBIOLOGY

Position available for technician with extensive experience in somatic cell hybridization techniques, monoclonal antibody production, and immunochemical assays. Applicant will be responsible for the generation, screening, and characterization of antibodies against neuronal cell surface antigens. Send curriculum vitae and references to: Barbara Muller, Howard Hughes Medical Institute, Columbia University, 722 West 168 Street, New York, NY 10032. An Equal Opportunity Employer.

"MONOCLONAL ANTIBODIES? BUT I THOUGHT ORTHO WAS JUST..."

Most people think that Ortho is just a gynecological company. That's not surprising. We are and always have been a leader in that field.

But we're also a great deal more. Monoclonal antibodies for example —we were the first to provide a panel of monoclonals for the identification and quantification of subsets of T-lymphocytes. Furthermore, we are the world leader in developing one of these as a therapeutic tool. And, one of our key research programs is the development of a monoclonal antibody to treat organ transplant rejection.

monoclonal antibody to treat organ transplant rejection. While most other companies are just getting started in this area of pharmaceuticals, we are in the advanced stages of clinical research. And that's just the beginning.

We're also investigating anti-infective, cardiovascular and gastrointestinal drugs. And we're the foremost dermatological company. In short, we're a diversified leader – an ideal place for scientists

In short, we're a diversified leader—an ideal place for scientists who want to work in an environment where their creativity, their opinions and their judgments are valued and rewarded.

Add all this to the fact that we're part of the Johnson & Johnson family of companies, and you'd be hard pressed to find a better place to work.

Right now we're looking for immunologists, peptide chemists and biochemists who possess a PhD and a minimum of 5–7 years' related experience.

So, whether or not you have considered Ortho in the past, perhaps you should now. We're a lot more than you think. We invite you to forward your resume and salary requirements in confidence to: Manager Selection, Dept. C-4, Ortho Pharmaceutical Corporation, Route 202, Raritan, NJ 08869-0602. An equal opportunity employer.



A LOT MORE THAN YOU THINK.

A RESEARCH POSITION at the postdoctoral level is available in the Department of Pharmacology and Therapeutics, McGill University, for a candidate holding a Ph.D. degree (or equivalent) to work in hybridoma technology applied to transmitter neurobiology. Present group interests include cholinergic and peptidergic neur-otransmission. The work relates to the involvement of these systems in neurodegenerative diseases using animal models. The research project offers the opportunity of applying immunological, pharmacological, biochemical, and anatomical approaches. Candidates with experience in hybridoma technology and chemical immunology or biochemistry are preferred. The laboratory has excellent facilities and good possibilities for interdisciplinary research. The candidate will also have considerable techni cal help at his/her disposal, as well as access to a good number of departmental services. The appointment is available beginning May 1986. The salary is in accordance with MRC regulations. Applicants are invited to apply in writing, enclosing curriculum vitae, and the names and addresses of three referees to: Dr. A. C. Cuello, Chairman, 3655 Drummond Street, Montre-al, Quebec, Canada H3H 1P3, before 15 April 1986.

RESEARCH TRAINING IN SALIVARY SECRETION

Positions available immediately at the University of Washington for research training in the cell biology and pathophysiology of salivary secretion. Possible topic areas include elemental analysis using electron probe, interactions between salivary macromolecules, intracellu-lar messengers, transport of secretory macromolecules, tissue culture, bacterial colonization, and so forth. Appli-cants should have Ph.D. or professional degree (M.D., D.D.S., D.V.M., or equivalent) and must be U.S. citizen or have permanent visa. Graduate programs leading to Ph.D. or M.S. are available. Stipends: \$15,996 to \$30,000, depending upon years of experience. Send curriculum vitae, three references, and statement of research interests to: Dr. Kenneth Izutsu, Department of Oral Biology, SB-22, University of Washington, Seattle, WA 98195, at earliest possible date. An Affir-mative Action/Equal Opportunity Employer.

SENIOR RESEARCH ASSOCIATE

Protein biochemist holding Ph.D. degree and at least 2 years of postdoctoral training to be an active participant in well-developed, but innovative study of biologically relevant protein-lipid interactions. Problem area deals primarily with separation isolation and characterization of unique human liver secretory proteins having a variety of biological functions. Co-workers consist of an interac tive group already of critical size for productivity. Candidates should have appropriate biochemistry, cell biology, and possibly applied immunochemistry experience. Sub-mit complete résumé and names of three references to: Research Unit, Cleveland Clinic Foundation Research Institute, 9500 Euclid Avenue, Cleveland, Ohio 0410–44106. An Equal Opportunity Employer.

The Environmental Defense Fund is seeking appli-cants for the position of **STAFF SCIENTIST** in its New York City office. The position carries a 1- or 2-year commitment and an annual salary of at least \$20,000. Applicants must have a graduate degree in the physical or biological sciences, research experience, and good writing skills. Expertise in atmospheric or ocean sciences preferred. The position provides the opportunity to undertake scientific research and apply the results to public policy issues. Please send résumés to:

Lois Arzonetti Environmental Defense Fund, Inc. 444 Park Avenue South New York, New York 10016

UNDERGRADUATE LABORATORY SUPERVI-SOR: The University of Georgia—invites applications for the position of undergraduate laboratory supervisor. The candidate's responsibilities will include supervision of the general chemistry and the basic organic chemistry laboratories. Minimum requirements: M.S./M.A. in chemistry and some teaching experience. Please submit a cover letter, résumé, and the names of three references to: Dr. Harry D. Peck, Director, School of Chemical Sciences, Department of Chemistry, The University of Georgia, Athens, Georgia 30602, by 1 May. An Equal Opportunity/Affirmative Action Employer Institution.

POSITIONS OPEN

The Division of Urology, University of California, Los Angeles (UCLA) School of Medicine, is recruiting a UROLOGIST interested in a career in academic urology. Applicants must be Board-certified or Board-eligible, have a demonstrated interest in an academic career, and have skills in teaching, research, and clinical urology. Activities will be divided between one of the affiliated hospitals and the Stone Center at UCLA, and experience in stone management and stone research is favored, but not required. Applicants should submit curriculum vitae, bibliography, and names of references. UCLA and its affiliated institutions are Equal Opportunity and Affirmative Action Employers. Inquiries should be addressed to: Chief, Division of Urology, UCLA School of Medi-cine, Los Angeles, California 90024.

The Division of Urology, University of California, Los Angeles (UCLA) School of Medicine, is recruiting a UROLOGIST committed to renal transplantation to become the head of the Renal Transplantation Section. Applicants must have had specialized post-residency training and expertise in renal transplantation and demonstrated commitment to transplantation research. Ap-plicants should have a clear dedication to a career in academic urology. Applicants should submit curriculum vitae, bibliography, and names of references. UCLA ana vitae, bibliography, and names of references. UCLA ana its affiliated institutions are Equal Opportunity and Affir-mative Action Employers. Inquiries should be addressed to: Chief, Division of Urology, UCLA School of Medicine, Los Angeles, California 90024.

VICE PRESIDENT FOR RESEARCH

A small, publicly held biotechnology company, planning A small, publicly field biotechnology company, planning to relocate to California, is seeking to recruit a new vice president for research and development. We are looking for an established scientist with a background in molecu-lar biology, recombinant DNA, and/or molecular immunology. Our company offers an attractive salary and benefits package. Please send résumé and names of three references to: **Box 51, SCIENCE.**

VIROLOGIST/MOLECULAR BIOLOGIST. The Ophthalmology Research Laboratories, Cedars-Sinai Medical Center, a University of California, Los Angelesaffiliated hospital, is seeking applicants for a full-time, tenure-track equivalent assistant professorship in the Virology Research Division. Applicants should hold a Ph.D. or equivalent in the area of microbiology/molecular biology, have interest in pathobiology of herpes simplex infections, and demonstrated ability to carry out independent research. The successful applicant will be a staff member of a permanently endowed research facility. Send curriculum vitae, letter outlining research interests, and three letters of recommendation to:

> Anthony B. Nesburn, M.D. (RA) Cedars-Sinai Medical Center Halper Building, Suite 116 8700 Beverly Boulevard Los Angeles, CA 90048

Available immediately position of VISITING ASSIST-ANT RESEARCH SCIENTIST (nontenure-faculty) for research on microbial metabolites/pesticides. Position is for 1 to 3 years; annual salary \$18,500. Must have Ph.D. in pharmacognosy/medicinal chemistry, with additional 3 to 5 years of research experience in natural products. Send curriculum vitae, references, and publications by 4 April to: Dr. K. V. Rao, Box J-485, J. Hillis Miller Health Center, University of Florida, Gaines-ville, FL 32610. Equal Employment Opportunity/Affirmative Action Employer.

X-RAY CRYSTALLOGRAPHY AND STRUC-TURAL BIOCHEMISTRY. Faculty position. Chemistry Department and Center for Géne Structure and Function, Hunter College, City University of New York (CUNY), and the doctoral programs of CUNY in chemistry and biochemistry. Applicants should be committed to developing strong research initiatives involving oligonucleotide structures and/or nucleic acid interactions with polypeptides, proteins, and drugs. Tenure-track position, rank and salary dependent upon background and experience. Interested applicants of all levels, particuand experience: Interested applicants of an levels, particu-larly minorities, are encouraged to apply. Provide résu-mé, short statement of research interests, and three letters of recommendation to: Professor J. Wijnen, Chair, Chemistry Department, Hunter College, New York, NY 10021. An Equal Opportunity Affirmative Action Employer. Please respond by 15 April 1986.

POSITIONS OPEN

COLLEGE OF THE VIRGIN ISLANDS VISITING INSTRUCTOR OR VISITING AS-SISTANT PROFESSOR OF PHYSICS, beginning 15 August 1986. Candidates are required to have a minimum of a master's degree in physics and at least 2 years of full-time, college-level teaching experience. A doctorate is preferred. Indication of exceptional ability in teaching elementary college physics, astronomy, and physical science for nonscience majors is important. Adaptability, sense of proportion and genuine interest in students are also important assets. Will teach 12 credit students are also important assets. Will teach 12 credit hours per semester in introductory physics for science majors and possibly physical science for nonscience ma-jors or descriptive astronomy. Appointment will be dependent on the receipt of federal grant monies. Aggregate compensation \$21,740 to \$29,935, plus liber-al benefits. Address letter of application, résumé, and three letters of recommendation by 15 April to: Dr three letters of recommendation, by 15 April to: Dr. LaVerne Ragster, Chairperson, Division of Science and Mathematics, College of the Virgin Islands, St. Thomas, VI 00802. Equal Opportunity/Affirmative Ac-tion Employer.

SYMPOSIUM

SYMPOSIUM ON THE PHYTOCHEMICAL EFFECTS OF ENVIRONMENTAL COMPOUNDS

The Phytochemical Society of North America (PSNA) will hold its annual meeting and symposium at the University of Maryland, College Park Campus, 13 to 17 July 1986. The meeting will feature a 3-day coordinated symposium, as well as contributed oral and poster sessions which are open to all areas of plant science. For additional information and registration forms, contact: Dr. James A. Saunders, PSNA Registration, 14590 Triadelphia Mill Road, Dayton, MD 21036.

GRADUATE PROGRAM

GRADUATE PROGRAM IN PHARMACOLO-GY-The Department of Pharmacology at Temple University School of Medicine has a limited number of versity School of Medicine has a limited number of fellowships available for outstanding applicants. Write for brochure and application material. Closing date is 1 April 1986. Contact: Dr. Leon Salganicoff, Depart-ment of Pharmacology, Temple University School of Medicine, 3400 North Broad Street, Philadelphia, PA 19140. Telephone: 215-221-3236.

PROGRAM

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a doctor of optometry (O.D.) degree in two calendar years. Employment opportunities exist in private prac-tice, industry, education, and research. Contact: Ph.D.-O.D. Program Director, Admissions Office, The New England College of Optometry, Room 15, 424 Bea-con Street, Boston, MA 02115.

POSTDOCTORAL TRAINING PROGRAM IN THE CELLULAR/MOLECULAR BIOLOGY OF AGING

Positions are available for postdoctoral trainees (Ph.D. Positions are available for postdoctoral trainees (Ph.D. and/or M.D.) to obtain 2 years of specialized training in the methods and models of research on aging. This program is directed by a consortium which includes the University of Pennsylvania/Wistar Institute (Drs. V. Cristofalo, D. Kritchevsky, E. Levine), Temple Uni-versity (Drs. R. Baserga, N. Duker, A. Schwartz), the Medical College of Pennsylvania (Dr. L Roberts) and Medical College of Pennsylvania (Dr. J. Roberts) and Merck Sharp and Dohme Research Laboratories (Drs. M. Bradley and W. Nichols). Research emphases include: cell cycle kinetics/dynamics; growth factor regula-tory mechanisms; cellular transformation and immortaltory mechanisms; cellular transformation and immortal-ization; regulation of gene expression; DNA repair; cytogenetics; nutrition; vascular cell physiology; cardio-vascular physiology/pharmacology; and DHEA action in aging and cancer. Address applications (curriculum vitae, three letters of reference, and graduate school transcript) to: Vincent J. Cristofalo, Ph.D., Director, University of Pennsylvania, Center for the Study of Aging, 3906 Spruce Street, Philadelphia, PA 19104.

SCIENCE, VOL. 231

HOFFMANN-LA ROCHE

Senior Scientist

Department of **Molecular Genetics**

The Department of Molecular Genetics has an opening in the Microbial Genetics Group. This Group is responsible for the cloning, characterization and engineering of genes for expression in microorganisms.

The individual we are seeking will be involved in both applied and basic research projects using recombinant DNA technology. This position requires a PhD in Molecular Biology, Microbiology or Biochemistry, along with a minimum of 2 years postdoctoral ex-perience. Recombinant DNA and DNA sequence analysis background is required.

In addition to fully commensurate salary and excellent benefits Roche offers an environment conducive to personal and professional achievement. Please sr nd your resume with current salary infor-mation to: Ms. Fran Newman



An equal

HOFFMANN-LA ROCHE INC. Nutley, NJ 07110 Products that matter from people who care

MARKETING **SPECIALIS**

If you are looking for an opportunity to move out of the lab and into a high visibility position where you can share product management responsibilities, then we have an opportunity that will interest you.

Assist in developing new molecular biology products and instruments, and bringing them to market. Responsibilities will include technical writing, customer service, developing promotional literature, laboratory work, and training sales personnel. Some travel is involved.

Requires 2 or more years' experience with cloning, M13 sequencing, and computer analysis of DNA sequences. Knowledge of electrophoresis instrumentation, computers, and molecular biology desirable. Also requires strong organizational, writing and communication skills. A Master's degree in Life Sciences and some industry and/or business experience is preferred.

If you would like to be considered for this position, please submit resume to Rodney Reese, Corporate Employment Manager, Bio-Rad Laboratories, Dept. #167-S0321, 2200 Wright Ave., Richmond, CA 94804. An equal opportunity employer.



Assistant/ Associaté Scientist

Explore A Position Today With The Industry Of The Future.

The Agricultural Division of CIBA-GEIGY is respected for both the quality of its research and the highly accomplished scientists it attracts. To maintain our position of leadership in plant biotechnology, we currentiv seek an Assistant or Associate Scientist to join the staff at our facility located in Research Triangle Park NC

The successful candidate should have a BS/MS in Microbiology, Plant Pathology, or a related discipline, plus a minimum of 2 years' experience in bacterial genetics, molecular biology, and plant-bacterial interactions.

In return for your expertise, you'll receive a competitive salary, a comprehensive benefits package, and the opportunity to contribute to a highly professional and innovative environment. For prompt and confidential consideration, please forward your curriculum vitae to: Dr. Mary-Dell Chilton, Agricultural Biotechnology Research Unit, CIBA-GEIGY Corporation, P.O. Box 12257, Research Triangle Park, NC 27709-2257. An Equal Opportunity Employer m/f/h/v.

Progress Through Innovation BA-GEIGY

Research Scientist Head, Mass Spectrometry Group Laboratory of Molecular Biophysics National Institute of Environmental Health Sciences National Institutes of Health

The Laboratory of Molecular Biophysics, National Institute of Environ-mental Health Sciences has an opening for Head of the Mass Spectrometry Group. The Group has broad research interests in the application of Mass Spectrometry and related techniques to environmental health studies, in addition to providing a service to other scientists in the Institute. Research areas include: the analysis of peptides and oligonucleotides by tandem areas include: the analysis of peptides and oligonucleotides by tandem mass spectrometry; profiling and quantification of engogenous and exoge-nous compounds using highly selective chromatography-mass spectrom-etry (LC-MS) to the analysis of pesticides, drug metabolites and other samples of biological origin; and application of Tandem Mass Spec-trometry in gas phase ion chemistry. Instruments available include: VG ZAB-4F Tandem Double-Focusing Mass Spectrometer; VG ZAB-2F and 7070E Sector Instruments; and Finnigan 3300 and VG-12-250 Quadrupoles.

Duties of the Group Leader include the supervision of independent and Collaborative research programs and of the analytical service provided to Institute scientists. Minimum educational requirements are a four year course of study in an accredited college or university leading to a bachelor's degree with major study in chemistry, physics, physical chemis-try or a related discipline and a doctorate in the specialty area. Applicants must have a demonstrable record of research achievement in the applica-tion of mass spectrometry to biochemical, pharmacological, toxicological or environmental problems. Some experience in research program planning and implementation is desirable.

This is a Civil Service career/career conditional appointment under the Merit Pay System at the GM-13/14/15 level with a salary range \$37,599 to \$67,940 depending on the qualifications of the applicant selected. Benefits include Civil Service Retirement/Social Security, life and health insurance. This is a supervisory position and may require the incumbent to serve a one year probationary period. U.S. citizenship is required. Submit application package for physical sciences positions (available at all Federal Job Opportunity Centers and Federal Personnel Offices), curriculum vitae, and names of three references by April 21, 1986 Mr. Bruce Wiggins, Code: HN-V2K(1)

National Institute of Environmental Health Sciences PO Box 12233 (MD 1-01) Research Triangle Park, North Carolina 27709 Telephone (919) 541-3317 NIEHS IS AN EQUAL OPPORTUNITY EMPLOYER

COURSES

MOLECULAR FOREST BIOLOGY SUMMER WORKSHOP at The Institute of Forest Genetics Placerville, California

A 4-week laboratory course—6 July 1986 to 1 August 1986 will provide instruction in the techniques of molecular forest biology, including recombinant DNA tech-nology, tissue culture, and isozyme methodology using material from coniferous species. The course will be open to ten participants. Preference will be given to forest scientists able to apply these methods to research in forestry. The deadline for applications will be 1 May 1986. For further information, write to: Molecular Forest Biology Workshop, USDA Forest Service, P.O. Box 245, Berkeley, CA 94701.

CALL FOR PAPERS

CALL FOR PAPERS SOCIETY FOR RISK ANALYSIS 1986 MEETING

The 1986 Annual Meeting of the Society for Risk Analysis (SRA) will be held 9 to 12 November at the Park Plaza Hotel, Boston, Massachusetts. The theme of the meeting is "New Risks: Issues and Management. The SRA invites you to submit an abstract of a paper to be presented at the meeting. Send a 250-word abstract to: Dr. Paolo Ricci, Arthur D. Little, Inc., Acorn Park, Cambridge, MA 02140, by 1 May 1986. The general outline of the meeting is as follows:

Issues in Public Health: Nutrition, Infections and

Toxic Agents Risks in New Technologies Communication of Risk and Uncertainty

Risk and Liability Risk Management: Congress, Agencies and Corporations

New Methods in Risk Assessment Global Issues: Terrorism, Natural Disasters, Nuclear Winter

European Outlook on Risks

CONFERENCE

CONFERENCE—"BRAIN IMMODERATELY STIRRED: FRONTIERS OF THE BRAIN/ MIND PROBLEM"

An interdisciplinary conference featuring philosopher An interdisciplinary conference featuring philosopher Jerry Fodor, psychologist Michael Gazzaniga, neuro-scientist Robert Livingston, artificial intelligence repre-sentative David Israel, and biologist Phillip Kitcher. Conference to be held 30 to 31 May 1986 on the campus of Indiana University of Pennsylvania (IUP). Conference fee is \$30 and contact person is: Barbara Ender, School of Continuing Education, IUP, Indiana, Pennsylva-nia 15705 nia 15705.

CONFERENCE ON THE PATHOPHYSIOLOGY OF MALE SEXUAL DYSFUNCTION 4, 5 and 6 JUNE

The National Institute of Arthritis, Diabetes, and Diges-tive and Kidney Diseases of the NIH and the National Kidney Foundation will sponsor a conference on the Pathophysiology of Male Sexual Dysfunction on 4, 5 and 6 June 1986 in Baltimore, Maryland. Speakers will present topics covering epidemiology, anatomy and physiology, neural control, endocrinology of the male reproductive system, erectile pathology in systemic dis-ease, clinical assessment, and management of sexual dysfunction. There will be a poster session. Interested parties should include an abstract of about 150 words indicating the content of the poster. Attendance is limited, so please contact the following concerning regis-tration by 30 April: The National Kidney Foundation, 2 Park Avenue, New York, NY 10016; telephone: 212-889-2210.

ECOLOGY OF SOCIAL BEHAVIOR. 5 to 7 June 1986, at Northern Arizona University, Flagstaff. The program will center on ecological mechanisms that pronote the formation, maintenance, and evolution of social groups, with specific examples from social groups of primates, other mammals, birds, and insects. For further information, contact: Dr. C. N. Slobodchikoff, Depart-ment of Biology, Northern Arizona University, Flag-tre 980011, there are 602 522 4202. staff 86011; telephone 602-523-4307.

REQUESTS FOR PROPOSALS

The Southern Commercial Forest Research Coop-erative (SCFRC), in cooperation with the U.S. Depart-ment of Agriculture Forest Service and the Environmental Protection Agency, is seeking proposals for research to determine the role of air pollution in forest health. Specifically, research should be designed to quantify pollutant effects on tree physiology, growth and develop-ment in natural forest environments of the southeastern and southern United States. For submission details, send an 8 source inter states. For submission details, send an 8 1/2 × 11 self-addressed envelope to: Dr. Ann M. Bartuska, SCFRC Program Manager, 1509 Varsity Drive, Raleigh, NC 27606. Deadline for requesting information is 4 April.

AWARDS

HILDEGARD DOERENKAMP-GERHARD ZBINDEN FOUNDATION 1986 SCIENTIFIC AWARD

Two prizes of 50,000 DM each will be awarded I wo prizes of 50,000 DM each will be awarded for outstanding scientific contributions leading to the replacement of whole animals in teaching and research. Specifically, areas of interest for 1986 include:

The replacement of dogs and cats in biomed-ical research. Applications should be sent to: Dr. Diether Neubert, Institut für Toxiko-logie, Freie Universität Berlin, Garystr. 5, D-1000 Berlin 33, Federal Republic of Germany.

The development of alternatives to whole The development of alternatives to whole animals in research on antitumor and anti-infective chemotherapy. Applications should be sent to: Dr. Alan M. Goldberg, Asso-ciate Dean for Research, The Johns Hop-kins University School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, Maryland 21205.

Applications may consist of written description, illustrations, audiovisal presentations, pub-lished work or unpublished reports, etc. There are no formal application materials and more than one prize may be awarded in the same area. Deadline for submission: 31 December 1986.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS---in the cellular and molecular biology of cancer, sponsored by the National Cancer Institute. A broad range of programs National Cancer institute: A broat range of programs include molecular immunology, pharmacology, virology, and membrane biology. For a list of faculty and fields of research, call or write: Moseley Waite, Ph.D., Professor and Chairman of Biochemistry, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, NC 27103; telephone: 919-748-4373. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP IN BLOOD BANKING—IMMUNOHEMATOLOGY, IMMU-NOGENETICS, AND IMMUNOBIOLOGY. The Mount Sinai School of Medicine. Research programs applying molecular and cellular immunology/hematology techniques to understand better human blood compatibility and histocompatibility for transplantation thera-pies. Opportunities exist for both basic laboratory and applied clinical studies. Please send curriculum vitae, descriptive letter of interest, and names of two references to: Charles G. Zaroulis, M.D., Department of Trans-fusion Medicine, THE MOUNT SINAI MEDICAL CENTER, One Gustave L. Levy Place, New York, NY 10029. An Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP. Neurophysio-logical and pharmacological research on peripheral arteri-al chemoreceptors and their role in regulation of respiration, especially role of putative carotid body neurotrans-mitters in hypoxic states. Available summer 1986. By 15 April 1986 provide curriculum vitae and three letters of reference to: Dr. G. E. Bisgard, Department of Com-parative Biosciences, University of Wisconsin, 2015 Linden Drive West, Madison, WI 53706. Telephone: 608-263-5878.

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FELLOWSHIPS

THE INTERUNIVERSITY INSTITUTE OF ELAT, ISRAEL Applications are invited for a POSTDOCTORAL FELLOWSHIP

for a Ph.D. wishing to pursue research in marine sciences (biology, geology, chemistry, or physics). The position is available for 1 year with an option for extension for an additional year. Applications, including curriculum vitae and three separately sent letters of recommendation, should be sent no later than 15 May 1986 to:

The Scientific Director

The Interuniversity Institute of Elat P.O. Box 469 Elat, ISRAEL

NEW ZEALAND SENIOR AND POSTDOCTORAL RESEARCH FELLOWSHIPS

The National Research Advisory Council offers 14 fel-kowships to be taken up in 1987 for research in government departments in fields of importance to New Zealand

Senior Research Fellowships

Applicants should hold a Ph.D. or equivalent and have a distinguished record of scientific research and/or administration in a relevant field.

Postdoctoral Research Fellowships

Applicants should hold a doctorate or equivalent degree and have relevant postdoctoral research experience.

Preference will be given to applicants with sound re-search proposals of significant national importance. Prior contact with the institution of choice is advisable. Appli-cants must have a good working knowledge of English and meet New Zealand immigration requirements. Sala-ries, which are taxable, range from NZ\$32,257 to NZ\$67,000. Return travel to New Zealand is provided. Application forms and information booklets may be

Application forms and information booklets may be obtained from any New Zealand diplomatic post includ-ing the New Zealand Embassy, 37 Observatory Circle NW, Washington, DC 20008; telephone: 202-328-4800, or by writing to the National Research Advisory Council, Box 12240, Wellington, New Zealand. Applications close on 1 August 1986.

POSTDOCTORAL TRAINING FELLOWSHIP IN CLINICAL/BIOLOGICAL ALCOHOL STUDIES

NIAAA-funded postdoctoral program for M.D.'s and Ph.D.'s. Comprehensive training in alcohol research and participation in ongoing projects investigating neuroen-docrine, psychophysiological, and behavioral concomi-tants of alcoholic drinking behavior. Possibility also exists for the parallel development of appropriate animal models. Please send curriculum vitae and description of research interests along with the names of three references to:

Zel Dolinsky, Ph.D. University of Connecticut Health Center Department of Psychiatry Farmington, CT 06032

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Circle No. 40 on Readers' Service Card

Scientists & Postdoctoral Researchers

Genentech, Inc. is a research and development company which is utilizing state-of-the-art technology to produce pharmaceutical products for the prevention and treatment of a variety of human diseases. We currently have several positions open at the Scientist and Postdoctoral levels. Genentech's postdoctoral program is designed to give highly qualified PhDs research experience in a stimulating, exciting environment. Scientist level personnel are expected to have successfully completed a postdoctoral research program. Genentech research personnel are expected to participate in the planning and execution of scientific projects and are encouraged to share their results with the scientific community through publication and attendance at professional meetings. Our company has an excellent publication record, and our postdoctoral scientists have gone on to secure attractive positions in both industry and academics. We are now seeking Scientists and Postdoctoral Researchers in the following areas:

Cardiovascular Research—Scientists & Postdoctoral Researchers:

Individuals with strong backgrounds in the areas of cell biology, cellular physiology and molecular biology will be involved in areas of research including the molecular basis of atherosclerosis and thrombosis. The goal of this research is to investigate methods for the prevention and treatment of cardiovascular diseases. (#4220)

Cellular Immunology—Scientists & Postdoctoral Researchers: Individuals with at least 2 years of postdoctoral training and a record of research accomplishment in the areas of cellular or molecular immunology will participate in independent research directed at understanding the molecular and cellular basis of allergy, inflammation and autoimmune disease. Major responsibilities will include the development of biological and biochemical assays to identify and isolate the critical cellular regulatory molecules of these processes and to characterize the interactions between the receptors and mediators of anaphylaxis and inflammation, with the utlimate goal of defining novel routes of therapeutic intervention. Postdoctoral opportunities within these research areas are also available. (#4216)

Protein Biochemistry/Sequencing—Scientist: An individual with a strong background in protein microsequencing is sought to manage a laboratory sequencing a variety of proteins of biological importance. Responsibilities include the development of improved analytical methods in this field. The successful candidate will have a minimum of 5 years post-graduate experience in either academics or industry. Candidate should have the interpersonal skills to provide productive liaison contacts with academic groups collaborating with Genentech. (#4203)

Oncogenes and Growth Factors—Postdoctoral Researchers: Strongly motivated PhDs with research experience in the fields of molecular biology, protein biochemistry, or cell biology will be involved in ongoing and new research projects. These projects will focus on the structures and physiological roles of oncogenes, growth factors and their receptors in normal development and malignancy. (#4257)

Genentech offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. Please send resume to Human Resources Department (indicating position title and number), Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. An equal opportunity employer.



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