

chapters, on massif anorthosites (J.-C. Duchesne), although informative, seems out of place in this volume, for there is no obvious mineralogic or crystallographic aspect of the feldspars that can currently be genetically tied to anorthosites. Three papers on feldspathoids (by S. Merlino, C. M. B. Henderson, and A. D. Edgar) provide the best coverage of this subject that is available and round out the volume nicely. The conference organizers, the authors, and the editor have produced a valuable addition to an important field of mineralogy.

JULIAN R. GOLDSMITH

Department of the Geophysical Sciences, University of Chicago, Chicago, Illinois 60637

Paleolimnology

Lake Sediments and Environmental History. Studies in Palaeolimnology and Palaeoecology in Honour of Winifred Tutin. ELIZABETH Y. HAWORTH and JOHN W. G. LUND, Eds. University of Minnesota Press, Minneapolis, 1984. xviii, 411 pp., illus. \$55.

Over the last decade the subject of paleolimnology has rapidly gained popularity with the scientific community. Despite this surge of interest, there are surprisingly few volumes of collected papers dealing with the subject. The publication of *Lake Sediments and Environmental History* admirably fills the void.

The book opens with a warm introduction by John W. G. Lund outlining the career of Winifred Tutin, to whom the volume is dedicated. The contributed papers were collected to reflect the research interests of Tutin, which are wide-ranging, and the 14 chapters that make up the volume cover most topics that are of interest to paleolimnologists and palynologists. The contributions include geochemical studies, such as a comprehensive review by D. R. Engstrom and H. E. Wright, Jr., of the applicability of inorganic geochemistry to paleoecological reconstructions and a paper by P. A. Cranwell summarizing his stratigraphic analyses of triterpenoids from lake sediments. The problems associated with establishing a reliable chronostratigraphy are addressed in three chapters. Chapters by F. Oldfield and P. G. Appleby and by J. D. Eakins *et al.* deal with radiometric techniques, and one by R. Thompson provides a global review of paleomagnetism. The remainder of the volume mainly deals with fossil algae and pollen, including considerations of microfossil recruitment and

sediment focusing. These studies are based largely on sites from the United Kingdom, but the data are usually discussed in a more global context. The study of fossil pigments receives only cursory treatment, and the analysis of animal microfossils is not considered.

A chapter by E. S. Deevey, Jr., on stress, strain, and stability in lacustrine ecosystems is especially thought-provoking. Borrowing terms from macroeconomic theory, Deevey examines the structure, function, and holistic nature of lake systems. A careful reading of the chapter should convince most skeptics that paleolimnological studies are not simply historical documentations but also allow for an "explanatory description and prediction of a system's trajectory in time." The chapter will undoubtedly become required reading for many graduate seminars.

Overall, the book represents an important contribution to the study of environmental history, providing an interesting collection of reviews and case studies of use to nonspecialists as well as to practicing paleolimnologists. A detailed table of contents, lists of illustrations and tables, and a subject index enhance the volume's usefulness as a reference.

JOHN P. SMOL

Department of Biology, Queen's University, Kingston, Ontario K7L 3N6, Canada

Books Received

Changes in Eukaryotic Gene Expression in Response to Environmental Stress. Burr G. Atkinson and David B. Walden, Eds. Academic Press, Orlando, Fla., 1985. xviii, 381 pp., illus. \$65. Cell Biology.

Chemistry for the Health Sciences. George I. Sackheim and Dennis D. Lehman. 5th ed. Macmillan, New York, and Collier Macmillan, London, 1985. xiv, 594 pp., illus. Cloth.

Childhood and Death. Hannelore Wass and Charles A. Corr, Eds. Hemisphere, Washington, D.C., 1984. xvi, 392 pp., illus. \$39.95. Series in Death Education, Aging, and Health Care.

Chronology of Eclipses and Comets, AD 1-1000. D. Justin Schöve. Boydell, Dover, N.H., 1985. xxxviii, 356 pp. \$29.50.

The Climatic Scene. M. J. Tooley and G. M. Sheail, Eds. Allen and Unwin, Boston, 1985. xxii, 306 pp., illus. \$30.

Clinical Epidemiology. The Architecture of Clinical Research. Alvan R. Feinstein. Saunders, Philadelphia, 1985. xii, 812 pp., illus. \$60.

Clinical Experiences with Budipine in Parkinson Therapy. F. Gerstenbrand, W. Poewe, and G. Stern, Eds. Springer-Verlag, New York, 1985. xii, 213 pp., illus. Paper, \$26.50. From a workshop, Innsbruck/Igls, Austria.

Earth Reinforcement and Soil Structures. Colin J. F. P. Jones. Butterworths, Boston, 1985. xviii, 183 pp., illus. \$59.95. Butterworths Advanced Series in Geotechnical Engineering.

Eastern Forests. Ann Sutton and Myron Sutton. Knopf, New York, 1985. 640 pp., illus. Paper, \$14.95. The Audubon Society Nature Guides.

Micro Database Management. Practical Techniques for Application Development. Robert H. Bonczek, Clyde W. Holsapple, and Andrew B. Whinston. Academic Press, Orlando, Fla., 1984. xiv, 513 pp., illus. \$37.50. Computer Science and Applied Mathematics.

Microbial Toxins and Diarrhoeal Disease. Pitman,

London, 1985 (U.S. distributor, CIBA Pharmaceutical Company, Newark, N.J.). x, 286 pp., illus. \$35. Ciba Foundation Symposium 112. From a symposium, London, July 1984.

Microbiology. Essentials and Applications. Larry McKane and Judy Kandel. McGraw-Hill, New York, 1985. xviii, 777 pp., illus. \$35.95.

The Microcomputer in Cell and Neurobiology Research. R. Ranney Mize, Ed. Elsevier, New York, 1985. xvi, 481 pp., illus. \$49.50.

Microform, Video and Electronic Media Librarianship. S. John Teague. Butterworths, Boston, 1985. x, 150 pp., illus. \$28.95.

Mind and Brain. Principles of Neuropsychology. Alberta Steinman Gilinsky. Praeger, New York, 1984. xxviii, 550 pp., illus. \$39.95; paper, \$18.95.

Minds Made Feeble. The Myth and Legacy of the Kallikaks. J. David Smith. Aspen Systems Corporation, Rockville, Md., 1985. xvi, 205 pp., illus. \$19.95.

Modern Cellular Automata. Theory and Applications. Kendall Preston, Jr., and Michael J. B. Duff. Plenum, New York, 1984. xviii, 340 pp., illus. \$49.50. Advanced Applications in Pattern Recognition.

Modern High Temperature Science. A Collection of Research Papers from Scientists, Post-Doctoral Associates, and Colleagues of Professor Leo Brewer in Celebration of His 65th Birthday. John L. Margrave, Ed. Humana, Clifton, N.J., 1984. xvi, 462 pp., illus. \$95. Reprinted from *High Temperature Science*, vol. 17.

Modern Physical Metallurgy. R. E. Smallman. 4th ed. Butterworths, Boston, 1985. xiv, 530 pp., illus. \$59.95.

Modern Trends in Hypnosis. David Waxman *et al.*, Eds. Plenum, New York, 1985. xviii, 429 pp., illus. \$55. From a congress, Glasgow, Aug. 1982.

Modulated Structure Materials. T. Tsakalakos, Ed. Nijhoff, Dordrecht, 1984 (U.S. distributor, Kluwer, Hingham, Mass.). iv, 611 pp., illus. \$79. NATO ASI Series E, No. 83. From an institute, Maleme-Chania, Greece, June 1983.

Molecular Basis of Cancer. Robert Rein, Ed. Liss, New York, 1985. Two volumes. Part A, Macromolecular Structure, Carcinogens, and Oncogenes. xxvi, 576 pp., illus. \$78. Part B, Macromolecular Recognition, Chemotherapy, and Immunology. xxii, 401 pp., illus. \$62. Progress in Clinical and Biological Research, vol. 172. From a conference, Buffalo, N.Y., May 1984.

Molecular Basis of Insulin Action. Michael P. Czech, Ed. Plenum, New York, 1985. xvi, 473 pp., illus. \$59.50.

Molecular Biology and Human Disease. Alexander MacLeod and Karol Sikora, Eds. Blackwell Scientific, Palo Alto, Calif., 1984 (distributor, Mosby/Times Mirror, St. Louis). xii, 271 pp., illus. Paper, \$15.95.

Molecular Biology of Host-Parasite Interactions. Nina Agabian and Harvey Eisen, Eds. Liss, New York, 1984. xx, 351 pp., illus. \$78. UCLA Symposia on Molecular and Cellular Biology, New Series, vol. 13. From a symposium, Park City, Utah, Jan. 1983.

Molecular Characterization of Composite Interfaces. Hatsu Ishida and Ganesh Kumar, Eds. Plenum, New York, 1985. x, 453 pp., illus. \$75. Polymer Science and Technology, vol. 27. From a symposium, Seattle, March 1983.

Mucosal Immunity. John I. Gallin and Anthony S. Fauci, Eds. Raven, New York, 1985. xii, 196 pp., illus. \$39.50. Advances in Host Defense Mechanisms, vol. 4.

Mushrooms and Other Fungi. Aurel Dermek. Arco, New York, 1984. 223 pp., illus. \$8.95. Translated from the Czech edition (Bratislava, 1981).

Myocardial Ischemia and Lipid Metabolism. R. Ferrari *et al.*, Eds. Plenum, New York, 1984. xii, 341 pp., illus. \$49.50. From a conference, Rome, July 1983.

Natural Acts. A Sidelong View of Science and Nature. David Quammen. Schocken, New York, 1985. xvi, 221 pp. \$16.95.

Neurohumoral Maintenance of Immune Homeostasis. Elena A. Korneva, Viktor M. Klimenko, and Elenora K. Shkhinek. Translated from the Russian edition (Leningrad, 1978) by and edited by Samuel A. Corson and Elizabeth O'Leary Corson, with Roland Dartau, Justina Epp, and L. A. Mutschler. University of Chicago Press, Chicago, 1985. x, 253 pp., illus. \$32.

New and Expanded Medical Schools, Mid-Century to the 1980s. J. R. Schofield. Jossey-Bass, San Francisco, 1984. xxxviii, 454 pp. \$29.95. Jossey-Bass Higher Education Series. Association of American Medical Colleges Series in Academic Medicine.

A New Look at the Dinosaurs. Alan Charig. Facts On File, New York, 1985. 160 pp., illus. Paper, \$9.95.

NMR Data Handbook for Biomedical Applications. Paula T. Beall, Sharad R. Amtey, and Sitapati R. Kasturi. Pergamon, New York, 1984. xviii, 198 pp., illus. \$59.95; paper, \$29.95.

(Continued from page 259)

Working Group Formed to Focus on Anthropology and Remote Sensing

A recent conference focused on how data obtained by remote sensing can best be applied to the work of ecological anthropologists. To continue that exchange, an anthropology working group in remote sensing (AWGRS) has been established.

The AWGRS will work to develop and maintain contact between anthropologists and national and international agencies involved in research, development, and applications of remote sensing and will encourage immediate research to better incorporate remote sensing information into the work of ecological anthropologists and archaeologists.

The AWGRS also will start a newsletter for anthropologists concerned with remote sensing. The newsletter will provide information on research in progress, the availability of site-specific data, and techniques and training in image analysis and construction.

The conference on ecological anthropology and remote sensing was held in early May in Washington, D.C., under the auspices of AAAS Section H (Anthropology) with the cooperation of the National Aeronautics and Space Administration and funding from the National Science Foundation.

Specialists in archaeology, ethnology, and primatology, as well as engineering and geographic information systems attended the conference. Francis Conant (Hunter College, City University of New York), Carole Crumley (University of North Carolina), and Priscilla Reining (AAAS) have agreed to guide AWGRS through its initial stages.

For more information on AWGRS, and to receive the forthcoming newsletter, write Priscilla Reining, Office of International Science, at the AAAS address.

For more information about the activities and publications described in "AAAS News," write to the appropriate office, AAAS, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036, unless otherwise indicated.

Personnel Placement

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POSITIONS WANTED

M.S.-M.D. Biomedical Engineer/Physiologist. Two years of direct experience in high-speed digital, analog, and human computer interfaces from development through prototype. Additional experience in membrane research, including flow cytometry. Seeking application engineering position in academics or industry. Box 140, SCIENCE. X

Environmental/Soil Chemist. Training in laboratory research on environmental problems associated with livestock wastes, with emphasis on physical chemistry of soil surfaces that control mobility of pollutants in the environment. Pesticide residue analysis of feed, fat, and water. Experienced with GC, GPC, and wet methods. Postdoctoral and supervisory experience. Box 152, SCIENCE. 7/19; 8/2, 16, 30; 9/13

Molecular Biologist/Electron Microscopist. Ph.D. Two years of postdoctoral training. Supervisory and teaching experience. Training and publications in recombinant DNA, bacterial genetics, gene fusion technology. Seeks research position in biotechnology firm located in New England. Available September/October 1985. Box 153, SCIENCE. X

Technical Translator, Japanese and Russian into English, academic qualifications and 6 years of experience, excellent quality, seeks direct contact with clients for steady full- or part-time translation or abstracting. Telephone: 206-328-2081. 7/19; 8/2

POSITIONS WANTED

Immunologist/Virologist. Ph.D. Experience in research and diagnostic virology, hybridoma technology, molecular biology, and immunoassays. Research with AIDS. Excellent publications. Seeking joint venture in commercial R&D and diagnostics. East Coast preferred, not absolute. Box 154, SCIENCE. X

Ph.D.—Physiology. Five years of postdoctoral experience in electrophysiology and pharmacology of peripheral nervous system. Broad background in psychology and physical sciences. Investigating administrative and/or marketing positions as "liaison" between private industry and laboratory scientists. Desires position in Midwest or Northeast. Box 155, SCIENCE. 7/19, 26; 8/2

POSITIONS OPEN

ASSISTANT CHEMIST—Ph.D. in inorganic chemistry. Three years of postdoctoral training. Research experience in organometallic and organic chemistry; crystal growth, electrocrystallization reactions techniques and handling of air-sensitive compounds; use of the following techniques: FTIR, FTNMR, ESR, UV-VIS, and mass spectrometry; HPLC, GLC and TLC; research experience should also include electrical properties measurements. Responsibilities will include design, synthesis, and characterization of novel organic metals. Salary: \$2975 per month—40 hours per week—8:30 a.m. to 5 p.m. Geographical area of employment: Southwest suburb of Chicago. Send résumé to: **ILLINOIS JOB SERVICE, 910 South Michigan Avenue, Third Floor, Chicago, Ill. 60605, attention: Joan Sykstus, Reference Number 4610-T.** An employer-paid ad.

ASSISTANT PROFESSOR. Research specialty preferred will deal with immunochemical and biochemical approaches to contemporary problems in immunology. Applicants must have postdoctoral training in area of research expertise. This a tenure-track position with a 12-month contract that is open now in the Department of Biochemistry in the College of Medicine. The successful applicant must be able to develop an extramurally funded research program, and effectively teach biochemical subjects to both medical and graduate students. Send curriculum vitae, brief summaries of present and proposed research, and have three letters of reference sent to: **Dr. F. P. Inman, Department of Biochemistry, East Tennessee State University (ETSU), P.O. Box 19930A, Johnson City, Tenn. 37614.** Women and minorities are encouraged to apply. ETSU is an Affirmative Action/Equal Opportunity Employer, M/F.

ASSISTANT PROFESSORS—The Department of Microbiology, University of Massachusetts at Amherst, invites applications for two tenure-track positions. We are seeking individuals with strong research backgrounds in microbial genetics and physiology whose interests will complement established research programs in our department in the areas of physiology and genetics of prokaryotic microorganisms. Candidates will be responsible for teaching courses in introductory microbiology and bacterial genetics. Applicants should forward curriculum vitae, including the names of individuals who may be contacted for letters of recommendation, to: **T. G. Lessie, Search Committee Chairman, Department of Microbiology, University of Massachusetts, Amherst, Mass. 01003,** by 15 October 1985. *The University of Massachusetts is an Affirmative Action/Equal Opportunity Employer.*

Applications are invited for a position in **NEUROPHYSIOLOGY** at the **ASSISTANT PROFESSOR** level in the Department of Physiology at the University of Manitoba Faculty of Medicine. Candidates should have a Ph.D. or equivalent, with two or more years of postdoctoral training. Preference will be given to individuals with experience and a continuing interest in electrophysiological analysis of neural networks and/or neurotransmitter actions using in vitro or in vivo systems. Send curriculum vitae, an outline of future research plans, and arrange for three letters of reference to be forwarded to: **Dr. Henry G. Friesen, Professor and Head, Department of Physiology, The University of Manitoba, 770 Bannatyne Avenue, Winnipeg, Manitoba, Canada R3E 0W3.** Deadline of receipt of applications is 1 September 1985. *In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.*

POSITIONS OPEN

THE DANA-FARBER CANCER INSTITUTE is seeking to fill one research position at the **ASSISTANT PROFESSOR** level. Joint appointment will be held in an appropriate department of Harvard Medical School. Candidates must be molecular biologists with specific training in the biology, molecular biology, and biochemistry of the Papova Viruses with special attention to their role as transforming agents. Individuals should have demonstrated independent research accomplishment in the generation and analysis of the biological and biochemical properties of SV40 and polyoma virus mutants defective in their transforming functions and with the biochemical study of the Pantigens of such viruses. Applicants should submit a résumé, list of publications, statement of research interests, and names and addresses of three references to: **Dr. David Livingston, Laboratory of Neoplastic Disease Mechanisms, Dana-Farber Cancer Institute, 44 Binney Street, Boston, Mass. 02115.**

An Affirmative Action/Equal Opportunity Employer

ASSISTANT PROFESSOR—INSECT PEST MANAGEMENT/FLORICULTURAL CROPS. Tenure track. Duties include research (50 percent)—Primary emphasis on biology and management of arthropods on floricultural crops; extension (50 percent)—Transfer of information for management of arthropod pests on floricultural crops. **Send for full position description.** Qualifications include a Ph.D. in entomology with experience in theoretical and applied aspects of insect ecology and pest management, experience in analytical procedures, for example, sampling theory, statistics, and systems science. Forward: (i) letter describing qualifications and interest in position, (ii) curriculum vitae, (iii) list of publications (include reprints), (iv) transcripts (postsecondary education), and (v) names and addresses of three to four referees to: **M. J. Tauber, Chair, Department of Entomology, Cornell University, Ithaca, N.Y. 14853.** Application deadline is 31 January 1986.

ASSISTANT PROFESSOR—INSECT POPULATION GENETICS. Tenure track. Duties include: Research (60 percent) on the genetics of insect populations in the laboratory and field; Teaching (40 percent). **Send for full position description.** Qualifications include a Ph.D. in genetics, entomology, or a related field, and experience with insect population genetics. Forward: (i) letter describing qualifications and interest in position, (ii) curriculum vitae, (iii) list of publications (include reprints), (iv) transcripts (postsecondary education), and (v) names and addresses of three to four referees to: **M. J. Tauber, Chair, Department of Entomology, Cornell University, Ithaca, N.Y. 14853.** Application deadline is 30 November 1985.

ASSISTANT PROFESSOR—INSECT TOXICOLOGY. Tenure-track. Duties include: research (60 percent)—Developing a research program focusing on insect toxicology or insecticide biochemistry; teaching (40 percent). **Send for full position description.** Qualifications include a Ph.D. in insect toxicology, insecticide biochemistry, or related areas. Forward: (i) letter describing qualifications and interest in position, (ii) curriculum vitae, (iii) list of publications (include reprints), (iv) transcripts (postsecondary education), and (v) names and addresses of three to four referees to: **M. J. Tauber, Chair, Department of Entomology, Cornell University, Ithaca, N.Y. 14853.** Application deadline is 30 September 1985.

BIO-ORGANIC CHEMIST—Supervises the chemical synthesis and purification to homogeneity of DNA for general use within a diverse biotechnology company. Advises on the design and selection of DNA probe, and on the general use of synthetic DNA cloning projects and molecular biological research. Researches procedures of streamline DNA synthesis and purification and for partial and total gene synthesis. Provides formal oral presentations in various project teams.

Requirements include a doctorate in bio-organic chemistry and at least 3 years of experience conducting research on the bio-organic chemistry and biochemistry of DNA, using synthetic DNA for modifying and studying genetic material. Experience is also required in: synthesizing DNA and RNA, using automated synthesis, purification and structural analysis methods for DNA and RNA, and general recombinant DNA procedures. Forty hours per week; \$3625 per month. Position located in Cambridge, Massachusetts.

Send résumé only to: **Job Order Number 5698, Massachusetts Division of Employment Security, C. F. Hurley Building, Boston, Mass. 02114.**

19 JULY 1985



THE WORLD HEALTH ORGANIZATION

invites applications for the post of

SCIENTIST (RESPONSIBLE OFFICER, RESEARCH AND DEVELOPMENT)

with its Special Programme for Research and Training in Tropical Diseases, Geneva. The incumbent will coordinate the strategic planning of the Research and Development operations of the Special Programme for Research and Training in Tropical Diseases (TDR) and the execution of the Research and Development plans as recommended by the Scientific and Technical Advisory Committee (STAC) and approved by the Joint Coordinating Board (JCB), and provide secretariat services for meetings of the STAC and its sub-committees; coordinate the planning of individual Scientific Working Groups (SWGs) and exploit opportunities for synergy, maintain programme balance and cohesion and avoid duplication among the groups; monitor and evaluate effectiveness and efficiency of research and development undertaken by SWGs.

Qualifications and Experience: A degree in medicine or a biomedical science degree at the doctorate level from a medical school or a university of recognized standing. Research qualifications to a doctorate level in association with medical degree or post-doctoral qualifications if primary doctorate degree is non-medical. At national level, at least 10 years' experience in biomedical research, including: (a) independent contributions to scientific knowledge; (b) direct involvement in research and authorship of a substantial number of scientific publications in refereed journals; (c) directing a research group; (d) research administration and participation in the work of research funding bodies; (e) teaching and training of researchers, both through the organization of training courses and the supervision of doctorate students. At international level: 5 years' experience in the planning and organization of research in an international framework. Excellent knowledge of English or French and a working knowledge of the other language.

The salary scale ranges from US\$ 42,594 (single) and from US\$ 46,125 (with dependents) net of tax per annum.

Applications are invited from candidates of either sex—applications from women are encouraged. Qualified candidates should send their detailed curriculum vitae *not later than July 31, 1985* quoting "TDR/85" to:

Personnel (MPR)
World Health Organization
CH - 1211 Geneva 27

Only those candidates under serious consideration will be contacted.

In the course of the expansion of our research effort in the animal health field we are establishing a new R&D unit in

ANIMAL HEALTH BIOTECHNOLOGY

The new unit will be responsible for the preclinical and clinical development of biotechnologically derived materials, and will concentrate its efforts in the areas of **NONSPECIFIC IMMUNITY** and **GROWTH/PRODUCTIVITY**.

Our organization is committed to establishing and maintaining a highly competitive R&D program in these areas with the ultimate goal of providing novel practical solutions to problems in Animal Health.

As members of our new team we are now seeking several highly qualified Ph.D. or DVM level scientists experienced within the following areas:

- VIROLOGY**
(cultivation and biology of viruses affecting livestock)
- MICROBIOLOGY/PARASITOLOGY**
(cultivation, biology and immunology of intracellular pathogens affecting livestock)
- IMMUNOBIOLOGY**
(Immunological methodology, host-pathogen interactions, non-specific immunity)
- GROWTH PHYSIOLOGY/ENDOCRINOLOGY**
(Hormonal and nutritional factors affecting growth, in vitro and in vivo test methodology)
- PHARMACOLOGY**
(Pharmacology of proteins and peptides, immuno-pharmacology, analytical methodology)
- FORMULATION AND DELIVERY**
(Experimental formulations of proteins, slow release devices, liposomes, adjuvants)
- PROTEIN BIOCHEMISTRY**
(Isolation and characterization of proteins, recovery process development and scale up, analytical methodology)

Candidates with appropriate qualifications and experience will be considered for group-leader positions.

The new unit will be housed in a separate laboratory building on our Research Station in Switzerland and will profit from the extensive infrastructure and the animal facilities available. The group will engage in collaborations with various internal R&D units, with academic institutions and with leading biotechnology companies worldwide.

Prospective members of the team should bring a solid scientific basis, the capability to function creatively in a highly interactive environment and the willingness to contribute to the solution of practical problems in animal health care.

Applications will be kept confidential and should include curriculum vitae, a list of publications and at least two references.

Please direct your application to **Mr. H. Gerber, CIBA-GEIGY LTD., Personnel Department, CH-4002 Basel, Switzerland.**

CIBA—GEIGY

Applications are invited for
faculty positions in

PLANT BIOCHEMISTRY

at the Swiss Federal Institute
of Technology in Zurich.

One or two faculty positions are available in the Faculty of Natural Sciences. The successful applicants are expected to develop their own research program and to participate in teaching basic biology to students of biology, forestry and agricultural engineering, rural engineering and pharmacy. For the advanced biology students the new professors will teach the field of their own research.

The applicants should have a Ph.D. and should have performed several years of independent research, preferably in the fields of plant physiology or developmental plant biology. They should be talented and willing to teach at all university levels.

Applications with curriculum vitae and list of publications should be submitted not later than August 15, 1985, to the President of ETH Zurich, Prof. H. Ursprung, ETH-Zentrum, 8092 Zurich, Switzerland.

SCIENCE

Posters

The following posters of *Science* covers are available:

30 March 1979, Tropical flowering tree;

23 February 1983, Landsat photo of Detroit, Michigan;

29 July 1983, Cheetah;

2 December 1983, Snowshoe hare;

23 December 1983, Cathedral window/DNA molecule.

Combination of space covers in scroll format: 1 June 1979, 23 November 1979, 10 April 1981.

Price is \$5 each (prepaid).

Write to AAAS, Department POST, 1515 Massachusetts Avenue, NW, Washington, D.C. 20005.

POSITIONS OPEN

ASSISTANT PROFESSOR AND EXTENSION RESIDENTIAL ENERGY SPECIALIST in Department of Design, Housing and Apparel, College of Home Economics, University of Minnesota, St. Paul. Fifty percent time faculty appointment will be a 3-year fixed-term position with statewide extension education responsibilities in residential energy. Ph.D. preferred, master's required. At least one degree in engineering, architecture, or other physical science field is required. For application information, contact: **Katharine Scheffler, Extension Personnel, 260 Coffey Hall, University of Minnesota, St. Paul, Minn. 55108; telephone: 612-373-1865.** Application deadline extended to 16 September 1985.

The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

ASSISTANT/ASSOCIATE PROFESSOR IN AVIAN VIROLOGY

A vacancy exists for a full-time, tenure-track position in the Department of Veterinary Microbiology and Parasitology, Texas A&M University. The incumbent will be responsible for developing an advanced research and teaching program in the molecular biology/biochemistry of avian pathogens. Teaching responsibilities will include instruction and training of graduate, undergraduate, and professional students.

A D.V.M. and Ph.D. or Ph.D. degree with research experience in molecular biology/biochemistry of avian pathogens is required. Evidence of a significant publication record and ability to obtain extramural support is also necessary.

Applications will be received until 15 August or until the position is filled.

Applications should be submitted together with a list of publications and names of three references to:

Dr. I. R. Tizard
Department of Veterinary Microbiology
and Parasitology
College of Veterinary Medicine
Texas A&M University
College Station, Tex. 77843

Texas A&M University is an Equal Opportunity Employer.

ASSOCIATE DIRECTOR OF CLINICAL PSYCHOBIOLOGY AND CHIEF OF THE PSYCHOBIOLOGY TREATMENT UNIT at the University of Cincinnati, College of Medicine. Candidates should have a proven record of research at the interface of clinical and basic psychobiology and psychopharmacology, an enthusiasm for training, and outstanding clinical skills for a tenure-track position at the assistant/associate professor level. Send résumé to: **David L. Garner, M.D., Director of Psychobiology, Department of Psychiatry, University of Cincinnati, ML 59, Cincinnati, Ohio 45267-0059.** *Affirmative Action/Equal Opportunity Employer.*

BIOLOGY/POPULATION ECOLOGY

Temporary position: 25 August 1985
to 20 May 1986

Visiting Assistant Professor. The Department of Biological Sciences at Idaho State University (ISU) is accepting applications for a temporary position of visiting assistant professor for the academic year to begin 25 August 1985. The successful applicant will teach population ecology, graduate level biometry, general genetics, and a nonmajors course in genetics. A doctoral degree is preferred. Salary will be up to \$21,000. Send application, official transcripts, and three letters of recommendation to: **The Chairperson, Department of Biology, Idaho State University, Pocatello, Idaho 83209,** by 5 August 1985. *ISU is an Affirmative Action/Equal Opportunity Employer.*

CHIEF, LABORATORY OF PSYCHOBIOLOGY AND PSYCHOPHARMACOLOGY at the University of Cincinnati, College of Medicine. A tenure-track position at the assistant/associate professor level for a basic scientist with proven record of research in both neurobiology and at the clinical interface in psychobiology and psychopharmacology. Responsible for laboratory leadership in both basic and clinical studies in psychobiology/psychopharmacology, integrative collaboration with clinical researchers, and leadership in resident research projects in the Department of Psychiatry. Send résumé to: **David L. Garver, M.D., Director of Psychiatry, Department of Psychiatry, University of Cincinnati, ML 59, Cincinnati, Ohio 45267-0059.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES (USUHS) ASSISTANT PROFESSOR OF PHARMACOLOGY

Applications are invited for a junior-level, tenure-track position. Excellent research facilities, equipment, and funding are available, but successful candidates are expected to generate independent support. The department is interested in neuropharmacology (especially molecular approaches), neurotoxicology, biochemical aspects of drug metabolism, molecular endocrinology, immunopharmacology, and receptor studies. A commitment to medical school teaching in pharmacology is required. The department has an active graduate training program. This position will be available after 1 October 1985.

Ph.D. in pharmacology or M.D. degree required; advanced training in pharmacology highly desirable. USUHS is a federally funded school of medicine which trains physicians serving the military forces. Faculty salary structure, benefits, tenure, and promotion policies are similar to those at private or state-funded schools of medicine.

Send curriculum vitae, statement of research interests, and names of three referees by 1 September 1985 to: **Dr. L. Aronow, c/o Civilian Personnel, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland 20814.**

ASSISTANT OR ASSOCIATE PROFESSOR IN PHYSIOLOGY. Medical School full-time faculty to participate in the human physiology course for freshman medical students and advanced courses for graduate students. An active research program, preferably in renal, endocrine, neuro-, or membrane physiology is highly desired. Rank and salary negotiable depending on qualifications and experience. Starting date: 1 January 1986. Send curriculum vitae and three letters of recommendation as soon as possible to: **Dr. P. G. Iatridis, Assistant Dean and Director, Northwest Center for Medical Education, 3400 Broadway, Gary, Ind. 46408.** *Indiana University is an Equal Opportunity/Affirmative Action Employer.*

ASSOCIATE PROFESSOR OF MATERIALS ENGINEERING AND DIRECTOR of major analytical facility with a specialty in microelectronic materials and analytical instruments. Ph.D. in materials science/engineering required with a substantial record of publications in microelectronic materials, electronic and ion beam analysis, and instrumentation development is required. Must have experience in administering a major analytical support facility and directing technical and professional staff. Demonstrated experience with SIMS, EMP, STEM, AEM, AES, and SEM (EBIC, EBIV, SACP, and cathodoluminescence) and development of new analytical methods required. Teaching experience at graduate/undergraduate level desirable. Must demonstrate capability to develop original research program suitable for graduate education. Send curriculum vitae and references by 26 July 1985 to: **Dr. Carl C. Koch, Chairman, Search Committee, Department of Materials Engineering, North Carolina State University, Box 7907, Raleigh, North Carolina 27695-7907.** *North Carolina State University is an Affirmative Action/Equal Opportunity Employer.*

BIOCHEMIST/MOLECULAR BIOLOGIST

The Department of Biochemistry and Biophysics is seeking applications for two assistant or associate professorships. These are 12-month, tenure-track positions jointly funded by the College of Agriculture and the Texas Agricultural Experiment Station. Outstanding individuals having research interests dealing with the molecular aspects of regulation, structure, mechanism, or function in microbial, animal, or plant systems are sought. In addition to research, participation in the department graduate and undergraduate teaching programs will be required. A terminal degree in either biochemistry or a related field, plus appropriate postdoctoral experience, is required.

Applicants should send curriculum vitae, list of publications, a brief description of current and future research directions, and names of three references to:

Dr. E. G. Sander, Head
Department of Biochemistry and Biophysics
Texas A&M University
College Station, Tex. 77840-2128

Applications will be accepted until 15 October 1985, or until suitable candidates are found.

The Texas A&M University System is an Affirmative Action/Equal Opportunity Employer.

Sr. Research Investigator



An opportunity to join American Critical Care's cardiovascular research team exists for a highly qualified doctoral level scientist with experience in the pathophysiology of myocardial ischemia and infarction. The candidate should possess a Ph.D. in cardiovascular physiology or pharmacology with 2-3 years of post-doctoral training and, ideally, prior industrial research experience.

Suitable candidates should possess a strong publication record of experience in one or more of the following areas: 1) ischemia-induced ventricular dysfunction and metabolic abnormalities, 2) regulation and pharmacological modification of coronary blood flow and its distribution, 3) the physiology and pharmacological modification of thrombosis and thrombolysis. A strong motivation to participate in drug-discovery oriented research will be required. The successful candidate will function as a member of a team of scientists dedicated to the discovery of novel therapeutic approaches to the treatment of cardiovascular disease.

Please send your resume and salary history in complete confidence to:

Employment Manager

American Critical Care

American Hospital
Supply Corporation
1600 Waukegan Road
McGaw Park, IL USA 60085



We are an equal opportunity employer.

RESEARCH SCIENTIST

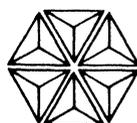
Antitumor Biology

The Bristol-Myers Pharmaceutical Research and Development Division has an excellent career opportunity for a Research Scientist to supervise its Antitumor Biology Screening Laboratory.

Successful candidate will participate in a multi-disciplinary collaborative research program and be responsible for the in vivo evaluation of potential antitumor agents using a variety of murine tumor models.

To qualify, you should have a minimum of a BS or MS degree with 6+ years experience in tumor biology and in vivo antitumor drug testing. The ability to design and analyze in vivo antitumor experiments plus demonstrated supervisory experience are essential.

Presently located in Syracuse, NY, our Antitumor Biology Department will relocate in the Spring of 1986 to a new state-of-the-art research facility in a delightful Connecticut community close to New Haven. We offer an excellent starting salary, comprehensive benefits and exceptional opportunity for professional achievement. For prompt, confidential consideration, forward your resume indicating salary history and requirement, to: EMPLOYMENT RECRUITER



BRISTOL-MYERS COMPANY
RESEARCH AND DEVELOPMENT DIVISION

P.O. Box 4755, Syracuse, New York 13221

An equal opportunity employer M. F.

SENIOR SCIENTIST/ SENIOR ENGINEER

Argonne National Laboratory

The Energy and Environment Systems Division of Argonne National Laboratory is seeking an experienced, Ph.D.-level Senior Scientist or Senior Engineer. In addition to possessing highly developed expertise in Economics, Physics, or Chemistry (for the Scientist position), or Mechanical, Chemical or related Engineering (for the Engineering position), qualified applicants will possess: Nationally recognized research achievement (international recognition preferred) in energy, environmental, and/or natural resource management technology. Experience in major national/international energy policy research and initiatives. Demonstrated capability to initiate and conduct original, high-quality research is essential. Strong written and oral communication skills and the ability to communicate effectively with individuals in other disciplines are required. Demonstrated ability to motivate and lead other professional staff is necessary. A strong record of technical publications is required.

The person who fills this position will have senior line management responsibility for new and ongoing research programs concerned with national and international energy, environmental, economic, and natural resource development programs. The individual filling this position will report to the Director of Energy and Environmental Systems Division. The position carries with it an appointment to the Senior Staff of the Laboratory.

We offer comprehensive benefits and an excellent salary commensurate with your background. **For prompt consideration, send resume and qualifications to: Rosalie L. Bottino, Box-J-EES-23541-55, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439.** An affirmative action/equal opportunity employer m/f.

Peptide Chemist

The Chemistry Department of SmithKline Beckman Corporation has an opening for an Organic/Peptide Chemist.

The successful candidate should have an MS in organic chemistry or biochemistry plus two years' experience in organic synthesis and/or peptide chemistry. A familiarity with modern analytical methods, e.g. HPLC, IR, NMR, etc. is highly desirable.

The Peptide Chemistry Department, located in Palo Alto, 30 miles south of San Francisco, offers an excellent salary, benefits, and relocation policy. Please send your resume and publication list in confidence to A.L. Gross, SMITH-KLINE BECKMAN CORPORATION, 1050 Page Mill Road, Palo Alto, CA 94304. We are an equal opportunity employer, m/f/h/v.

SmithKline Beckman

CORPORATION

POSITIONS OPEN

The Department of Physiology, University of Manitoba, invites applications from investigators in the field of **CARDIOVASCULAR PHYSIOLOGY** to be appointed at the level of assistant professor. The successful candidates will be expected to compete for local and national scholarship awards and develop their independent research programs. Applicants with backgrounds in membrane transport, electrophysiology, molecular biology, or hemodynamics are encouraged to submit their curriculum vitae, an outline of their research interests, as well as to arrange for three letters of reference to be sent to: **Dr. Henry G. Friesen, Professor and Head, Department of Physiology, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada R3E 0W3.** Deadline for application is 2 September 1985. *University of Manitoba is an Equal Opportunity/Affirmative Action Employer, but in accordance with Canadian Immigration, priority will be given to Canadian citizens and permanent residents of Canada.*

POSITIONS OPEN

CHAIRPERSON, Department of Pharmacology. The University of North Dakota (UND), School of Medicine, is conducting a search for a chairperson for its Department of Pharmacology. Applications are sought from individuals with a Ph.D., M.D., or M.D./Ph.D. and who have both a demonstrated scholarly productivity in an active research program and an acknowledged history of providing quality education to medical, graduate, and undergraduate students. Candidates must possess a background that demonstrates grantsmanship experience, leadership, administrative abilities, and communication skills with faculty and students. Interested persons should submit their curriculum vitae to: **Dr. Edward C. Carlson, Professor and Chairman, Pharmacology Search Committee, Department of Anatomy, University of North Dakota School of Medicine, Grand Forks, North Dakota 58202.** Deadline for receipt of applications is 15 September 1985. *UND is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

BIOCHEMIST. Experimental research in molecular biology (especially genetic engineering) using laboratory equipment and techniques including electrophoresis, affinity and ion exchange chromatography, UV spectrophotometry and cell fractionation: *in vitro* laboratory analysis of human ribosomal genes in cell-free transcription system; introduction of cloned genes into mammalian cells. M.S. in microbiology or biochemistry with academic specialization in protein chemistry and course work or experience in recombinant DNA techniques, and experience in application of UV spectrophotometry and ion exchange chromatography required. Forty-hour week; \$17,565 per annum. **Résumé to: New York State Job Service, 55 Medford Avenue, Patchogue, N.Y. 11772.** Order Number 0605717, DOT.041061026.

CHAIRMAN, DEPARTMENT OF PHARMACOLOGY/TOXICOLOGY—MEDICAL COLLEGE OF GEORGIA seeks nominations and applications for leadership position in well-established department with history of outstanding accomplishments. Candidate should have demonstrated excellence as investigator and educator in pharmacology, and desire to participate in growth of dynamic institution. Send nominations or curriculum vitae with names of three references by 15 September to: **Dr. Albert W. Pruitt, Chair—Pharmacology Search Committee, Department of Pediatrics, Medical College of Georgia, Augusta, Georgia 30912.** *Equal Opportunity/Affirmative Action Employer. J2974.*

CLINICAL RADIATION ONCOLOGY PHYSICIST. A position for a clinical physicist is open in a new university-affiliated radiation therapy department. The physicist will be responsible for the treatment units, quality control of the treatment units and simulator, and supervision of the patient specific dosimetry and treatment planning. Requirements for the position are an M.S. or Ph.D. in radiation physics, and a minimum of 3 years of clinical experience and clinical research experience; certification in radiation therapy physics by the American Board of Radiology is preferred. Interested applicants should forward curriculum vitae and the names of three references to: **Charles W. Scarrantino, M.D., Ph.D., Chairman, Department of Radiation Oncology, East Carolina University, Greenville, N.C. 27834.** *East Carolina University is an Equal Opportunity Employer through Affirmative Action.*

A Cincinnati manufacturing company seeks a **COMPUTER SCIENTIST** with necessary background for the position of a software engineer. The position requires a B.S. degree in computer science and 6 months of experience as information system programmer. The position also requires knowledge evidenced through education or job experience of relational data base design, knowledge evidenced through education or job experience of HP1000RTE System, and fluency in Chinese (Mandarin) language. Responsibilities include: modify and maintain existing computer data base, develop new engineering document control system data base, software control of the Image Transmission Subsystem, translate technical computer descriptions and documentation from English to Chinese, assist customer technical training program in China, Taiwan, and Hong Kong, and train Chinese nationals with software systems in their own language. Working conditions: office and plant, 40 hours per week (8:30 a.m. to 5:30 p.m.). Salary: \$22,000 per year. Send your résumés for referral to employer to: **Ohio Bureau of Employment Services, Employer Reference Number 0595732, 1916 Central Parkway, Cincinnati, Ohio 45214.**

RADIATION BIOLOGY AND ONCOLOGY. Applications are being accepted for tenure-track positions at the assistant/associate levels from individuals with a strong record of innovative research in the following areas: tumor and cellular biology, immunology, radiation biology (physics, chemistry), and experimental therapeutics. Responsibilities include full participation in a Ph.D. program, postdoctoral training, development of active research programs, and collaboration with other faculty at the basic science and clinical level. Appointments will be made through the Department of Radiation Oncology (Division of Radiation Therapy, Division of Radiation Biology and Oncology), and commensurate with achievement. Interested applicants should forward detailed curriculum vitae, a brief description of research interest, and the names of three references to: **Charles W. Scarrantino, M.D., Ph.D., Chairman, Department of Radiation Oncology, East Carolina University School of Medicine, Greenville, North Carolina 27834.** *East Carolina University is an Equal Opportunity Employer through Affirmative Action.*



Public Service Commission
of Canada

Commission de la Fonction
publique du Canada

Research Scientist, Herbicides

Agriculture Canada
Canadian Forestry Service
Northern Forest Research Centre
Edmonton, Alberta

We require an experienced scientist to conduct research programs related to the effective and environmentally acceptable use of herbicides for vegetation management. You will provide scientific direction on the use of herbicides for vegetation management in forest ecosystems, and interpret research results to enhance understanding of herbicide residue chemistry, persistence, movement and degradation in selected forest soils under controlled and field conditions. It will be your responsibility to generate scientific knowledge and environmental data as needed.

You require graduation with a doctoral degree from a recognized university, or a lesser degree with evidence of research experience and productivity equivalent to that of a doctoral degree in plant science with specialization in herbicide chemistry and biology. It is essential that you possess experience in herbicide residue chemistry (including the use of gas chromatographs, mass spectrometers and other analytical procedures), as well as in biology and related environmental impact issues. Knowledge of English is essential.

We offer a salary ranging from \$28,176 to \$52,409 commensurate with your qualifications and experience.

Forward your application form and/or résumé, quoting reference number

S-85-31-5467-47JG-(G35), to:

Joan Girling (613) 996-8054

Public Service Commission of Canada

Ottawa, Ontario, Canada K1A 0M7

Closing date: 9 August 1985

The Public Service of Canada is
an equal opportunity employer

Canada

Scientists Biological Process Sciences/ Protein Biochemistry

The Biological Process Sciences and Protein Biochemistry departments of Smith Kline & French Laboratories, located in suburban Philadelphia, are looking for outstanding scientists interested in developing and scaling-up processes for producing human biopharmaceuticals. Proteins derived from recombinant microorganisms are the principle focus of these groups, with projects starting from the research phase and proceeding through preparation of materials for clinical evaluation.

BIOLOGICAL PROCESS SCIENCES

ASSISTANT DIRECTOR - FERMENTATION TECHNOLOGY (ref: BPS 1)

Responsible for research and development of recombinant microbial systems from the laboratory to the pilot scale. Candidates should have a Ph.D. in Microbial Physiology/Biochemistry or Biochemical Engineering and a minimum of five years relevant postdoctoral experience in academia or industry. Experience with recombinant microbial products would be advantageous, as would an understanding of molecular genetics and computer controlled fermentor systems. Good communication and interpersonal skills are essential in view of the pivotal function of this group.

BIOCHEMICAL PROCESS ENGINEER (ref: BPS 2)

Responsible for development and applications of appropriate control strategies in diverse pilot plant operations, at the fermentor and product recovery levels. Candidates should have a Ph.D. in Chemical or Biochemical Engineering and up to five years postdoctoral experience. Experience in devising strategies for control of computer-linked biological processes and conducting experiments for evaluating these strategies is desirable.

SCIENTISTS AND TECHNICIANS (ref: BPS 3)

Individuals holding BS or MS degrees in a relevant field of Biological Science, and skilled in different aspects of the pilot plant operations are needed to staff a recently constructed, state-of-the-art pilot plant. Staff will be expected to work on theoretical aspects of microbial physiology, biochemical engineering and process optimization relevant to a variety of host-vector systems in procaryotic and eucaryotic cells. This will include the development of specific and facile analytical procedures for studying substrates, intermediates, and products. Experience with recombinant systems would be advantageous.

We offer excellent compensation and benefits, an attractive relocation policy and a work environment that offers substantial opportunity for personal and professional advancement. For confidential consideration, send curriculum vitae and names of three references, citing the appropriate reference number listed above to: Mr. Walter B. Flagg, Senior Employment Consultant, SmithKline Beckman Corporation, 1560 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

POSTDOCTORAL SCIENTISTS (ref: BPS 4)

Two positions exist for postdoctoral studies in Biological Process Sciences. One project is aimed at better understanding the physiology and biochemistry of specific host-vector systems. Factors affecting plasmid stability, plasmid copy number, and protein expression will be studied in batch and continuous cultures. A second project is directed towards developing new affinity-based approaches to removing DNA-contaminants for products going to clinical evaluation. Candidates should have a Ph.D. in an appropriate subject and a proven research record, demonstrated via presentation of results at scientific meetings and in publications.

PROTEIN BIOCHEMISTRY

SCIENTISTS: PROTEIN ISOLATION AND PURIFICATION SCALE-UP (ref: PB 1)

Individuals skilled in isolation and purification of proteins are needed to develop large scale processes for preparation of biologicals produced by recombinant DNA technology for clinical trials. Positions exist for Ph.D. and B.S. level scientists, having experience in modern chromatographic techniques such as ion exchange, HPLC and affinity chromatography. Staff will be expected to implement and maintain state-of-the-art technologies in protein isolation and purification.

POSTDOCTORAL SCIENTIST (ref: PB 2)

Responsibilities include developing new technology for isolation and purification of biopolymers and macromolecules using counter current chromatography and affinity-based HPLC procedures. The successful candidate will have a Ph.D. in Analytical Chemistry or Analytical Biochemistry and experience in separation science, particularly HPLC. Experience in counter current chromatography or separation and analysis of biopolymers is preferred.

SK&F
A SmithKline Beckman Company

POSITIONS OPEN

CHAIRMAN—DEPARTMENT OF PHYSIOLOGY

University of Colorado Health Sciences Center seeks a chairperson for the Department of Physiology. Those interested should contact: **John V. Weil, M.D., Chairman, Physiology Search Committee, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Campus Box B-133, Denver, Colo. 80262. Affirmative Action/Equal Opportunity Employer.**

CHAIRPERSON, DEPARTMENT OF PSYCHOLOGY, STATE UNIVERSITY OF NEW YORK (SUNY)—STONY BROOK. Person with leadership experience and international visibility sought to lead department with strong reputation consisting of 40 full-time faculty. The Psychology Department will make a significant number of tenure-track appointments in the coming years. Excellent research facilities and research support can be expected. Send curriculum vitae and names of three references to: **Dr. K. Daniel O'Leary, Chair, Search Committee, Department of Psychology, SUNY-Stony Brook, Stony Brook, N.Y. 11794-2500. SUNY-Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK Number 132D-85.**

CROP PHYSIOLOGIST/POMOLOGIST. The Department of Pomology, University of California, Davis, invites applications to fill a tenure-track position as assistant professor and assistant pomologist (10 percent teaching/90 percent research). The appointee will be expected to conduct research related to soil-plant-water relationships and irrigation strategies for deciduous fruit and nut crops. Potential research projects include, but are not limited to, the effects of soil moisture and plant water status on tree growth, root behavior, crop yield and quality, and predisposition of deciduous fruit trees to pests and diseases. Interaction with Cooperative Extension personnel and participation in student advising and upper division and/or graduate pomology courses will be expected. A Ph.D. degree in plant physiology, pomology, botany, or a related field is required. Previous experience with tree crops is desirable but not prerequisite. Submit curriculum vitae, official undergraduate and graduate transcripts, publications list, reprints, statement of research and teaching interests, and names and addresses of at least three referees to: **Ted M. DeJong, Search Committee Chairperson, Department of Pomology, University of California, Davis, Calif. 95616, prior to 1 October 1985.** The position will be available for appointment 1 December 1985 or later, depending on availability of the successful applicant.

In conformance with application law and University policy, the University of California is an Affirmative Action/Equal Opportunity Employer.

ENVIRONMENTAL PATHOLOGY/ TOXICOLOGY

Postdoctoral positions available in trace metal teratology, respiratory and inhalation toxicology, and aquatic toxicology (cytogenetics or teratogenesis) beginning July or September 1985 for those with a Ph.D., M.D., D.V.M., D.D.S. degree. Send curriculum vitae, two reference letters, reprints, and research interest statement to: **N. K. Mottet, M.D., Professor of Pathology and Environmental Health, SM-30, University of Washington, Seattle, Wash. 98195. An Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITIONS IN BIOCHEMISTRY AND TOXICOLOGY

Two full-time faculty positions at the instructor level in the Physiology/Chemistry Department beginning September 1985. Responsibilities include teaching in either toxicology or biochemistry and assignments in a biochemistry/clinical laboratory. Minimum educational requirement is a master's degree in an appropriate field. Research is strongly encouraged. Curriculum vitae, three letters of reference, copies of transcripts, and a statement of research interests should be sent to:

**Dr. Howard T. Silverstein
Chairman
Physiology/Chemistry Department
Palmer College of Chiropractic
1000 Brady Street
Davenport, Iowa 52803**

Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

CYTOGENETICIST

Baystate Medical Center, a 900-plus-bed teaching facility, is seeking a cytogeneticist to fill the technical director position for our newly formed Cytogenetics Laboratory which serves a population of 850,000 in western Massachusetts. Reporting clinically to the clinical geneticist and administratively to the administrative director, Clinical Laboratories, the activities of this position include the assurance of timely and cost-efficient laboratory services with continuous high-quality standards. The successful candidate will also be accountable for development and implementation of cytogenetics research protocol, and the provision of cytogenetics educational programs. Candidates at postdoctoral level (Ph.D.) in cytogenetics plus 3 to 5 years of experience. Management of laboratory services is desirable. Qualified candidates may send résumé to: **Diane Dubreuil, Director of Employment, BAYSTATE MEDICAL CENTER, 759 Chestnut Street, Springfield, Mass. 01199. An Equal Opportunity Employer, M/F/H.**

FACULTY POSITION IN CANCER CYTOGENETICS. The Department of Pathology, Medical College of Georgia, invites applications for a junior faculty position, instructor or assistant professor. The candidate should have a Ph.D. with experience in the area of cytogenetics. Demonstrated interests in pathology/pathobiology; cancer biology and/or molecular genetics and in flow cytometry would be desirable. The selected candidate would be expected to develop independent and collaborative programs in cancer cytogenetics. Applicants should apply to: **Dr. R. N. Rao, Chief of Anatomic Pathology, Department of Pathology, Medical College of Georgia, Augusta, Ga. 30912. Equal Opportunity Employer/Affirmative Action Program. J2939.**

UNIVERSITY OF GUELPH DEPARTMENT OF ANIMAL AND POULTRY SCIENCE

The Department of Animal and Poultry Science, University of Guelph, seeks **FACULTY MEMBERS** at the assistant/associate rank for tenure-track positions in molecular genetics or biochemical genetics.

The successful applicants will be expected to develop strong research programs in gene transfer and the expression of genes in developing avian and/or mammalian embryos. Major emphasis will include mediation of gene transfer by retroviral transduction, recombinant DNA techniques, gene cloning, splicing, and transfer. The appointees will be expected to be an integral part of a university team approach to genetic engineering of farm animals.

In addition to establishing a vigorous laboratory, the incumbents will also be expected to participate in the ongoing undergraduate and graduate teaching programs of the department.

A Ph.D. degree with demonstrated expertise in molecular genetics or a related field is required. Applicants should submit curriculum vitae, bibliography, recent reprints, transcripts, and three letters of reference to:

**Dr. G. K. Macleod, Acting Chairman
Department of Animal and Poultry Science
University of Guelph
Guelph, Ontario, Canada N1G 2W1**

Closing date for receipt of applications is 30 August 1985 or until the positions are filled.

Citizenship is not a factor for consideration.

Subject to final budgetary approval.

IMMUNOPARASITOLOGIST

Merck Sharp & Dohme Research Laboratories is currently seeking an immunoparasitologist to join our Animal Drug Discovery Department located in Rahway, New Jersey.

We are seeking an individual with a Ph.D. in the biological sciences or equivalent and a minimum of 5 years of postdoctoral research experience. A strong immunology background with skills in immunochemistry, expertise in immunology of infectious diseases or parasitic diseases, and a good publication record.

The successful applicant will conduct research in poultry, with a primary responsibility for in vivo studies.

Salary and benefits are excellent. Merck is located about 25 miles south of New York City. Send résumé to: **Luis F. Ballester, Merck & Co., Inc., P.O. Box 2000, Rahway, N.J. 07065.**

An Equal Opportunity Employer, M/F

POSITIONS OPEN

FACULTY POSITION DEPARTMENT OF PHARMACEUTICAL CHEMISTRY (PHARMACEUTICS) THE UNIVERSITY OF KANSAS

The Department of Pharmaceutical Chemistry, School of Pharmacy, The University of Kansas, invites applications for a tenure-track position at the level of assistant/associate professor. The department's research interests encompass the broadly defined area of pharmaceuticals, and applicants are expected to have a background in and interests compatible with those of the department. These include chemical and biochemical approaches to drug delivery, drug formulation and stability, thermodynamics, biopharmaceutics and pharmacokinetics, physical-chemical characterization of pharmaceutical systems and bioanalysis. Duties will include participation in undergraduate and graduate teaching, development of a strong independent research program, and service at the local and national level. Applicants should possess a Ph.D. in pharmaceuticals, physical pharmacy, pharmaceutical chemistry, or in a related physical/chemical/biophysical field. Postdoctoral, academic, or industrial experience is optionally preferred. Applications must be received by 1 September 1985. Please submit curriculum vitae including names of at least three references to: **Dr. Ronald T. Borchardt, Department of Pharmaceutical Chemistry, The University of Kansas, Lawrence, Kans. 66045. The University of Kansas is an Equal Opportunity/Affirmative Action Employer.**

LECTURER POSITION

The Department of Biochemistry and Biophysics invites applications for the position of lecturer (with eligibility for Security of Employment; 100 percent time, 9-month basis, 1 October through 30 June; salary will be commensurate with experience). A Ph.D. degree in a biochemical science with at least 2 years of experience beyond the Ph.D. degree in college or university teaching is required. The lecturer will be responsible each year for two general biochemistry lecture courses, two quarters of biochemistry laboratory, two quarters of an undergraduate seminar, and coordination of a one quarter graduate biochemistry lecture-laboratory course. The lecturer will be master adviser to approximately 400 undergraduate biochemistry majors. Send curriculum vitae, statement of teaching experience including student and/or faculty evaluations of teaching, academic transcripts, and names and addresses of three referees to: **Dr. Roy H. Doi, Chair, Lecturer Search Committee, Department of Biochemistry and Biophysics, University of California, Davis, California 95616; (telephone: 916-752-3611), by deadline of 23 August 1985. Position available beginning fall quarter 1985.**

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

POSITION OPENING

AT SHIPPENSBURG UNIVERSITY OF THE PENNSYLVANIA STATE SYSTEM OF HIGHER EDUCATION

MICROBIOLOGIST. Tenure-track appointment in the Department of Biology available semester II, 1985-1986. Primary responsibilities include teaching undergraduate and graduate courses in general and advanced microbiology (immunology and virology or pathogenic microbiology) to medical technology and biology students. Successful candidate will be expected to initiate/continue research program in specialty. Ph.D. (or active candidacy) and demonstrable teaching competency required. Application deadline: 15 October 1985. Rank and salary are negotiable. Submit résumé, official transcripts, statement of research plans, and names and telephone numbers of three references to: **Dr. William J. Morrison, Co-Chairperson of Search Committee, Department of Biology, Shippensburg University, Shippensburg, Pa. 17257.**

Shippensburg University is an Equal Opportunity/Affirmative Action Employer.

A tenure-track position for a **MOLECULAR BIOLOGIST, IMMUNOLOGIST, OR VIROLOGIST** with guaranteed funding for 5 years and with joint appointments in the Department of Ophthalmology and the corresponding basic department at Columbia University, College of Physicians and Surgeons. Interested candidates should send their curriculum vitae and names of three references to: **Peter Gouras, M.D., Chairman, Search Committee, Columbia University, Department of Ophthalmology, 630 West 168 Street, N.Y., N.Y. 10032.**

MICROBIOLOGIST HEAD OF THE GROUP

We are one of the leading concerns with several billion DM overheads and offer an excellent opportunity for a highly qualified professional to continue our progress in development in the fields of **soluble polymer** and **fatty biotechnology**.

The applicant is expected to build up and form a newly group. The successful candidate will have an excellent academic record, a PhD in microbiology as well as several years of experimental experience in genetics. He speaks English and German.

A competitive salary will be offered which will be commensurate with qualifications and experience. We offer excellent conditions of employment.

For further information please contact us or send your application including CV and names of two references to:

INZA GMBH



PERSONALANZEIGEN 4 DUSSELDORF 32
PERSONALBERATUNG Kaiserswerther Str. 115

BIOGEN

is a biotechnology company with laboratories in Switzerland and the United States, developing commercial applications of molecular biology in the areas of agriculture, chemicals, pharmaceuticals and energy.

In Geneva a vacancy now exists for a

SCIENTIST

to work in the area of fermentation technology.

The ideal candidate should:

- hold at least an M.Sc. or equivalent;
- have experience of bacteria, yeast and fungi;
- have experience in laboratory and pilot plant fermentation techniques;
- have extensive experience in the use of computers for bacterial fermentation;
- be fluent in English and have good knowledge of French.

Please send your resume accompanied by the names and addresses of at least three references whom we may contact on your behalf to

BIOGEN S.A.
Personnel Manager
46, Route des Acacias
1227 Carouge - Geneva
Switzerland

BIOCHEMICAL PHARMACOLOGIST

Merck Sharp & Dohme Research Laboratories is currently seeking a Biochemical Pharmacologist to join our staff in the Department of Microbial Pharmacometrics.

Responsibilities for this position will involve the discovery and development of structurally and pharmacologically novel compounds from natural sources and the evaluation of these compounds for potential therapeutic use.

This position requires a broadly trained Ph.D. in Biochemistry, Pharmacology or the equivalent with 2 years post-doctoral training. Background and training should include significant experience in the areas of radioligand binding assays, enzymatic assays, and receptor/second messenger interactions.

The successful candidate must possess a significant publication record and be able to work both independently as well as in a group-research environment.

An excellent salary and benefit program accompany this position at our attractive suburban Philadelphia location.

Please send resume with salary requirements to Jacques P. Kueny

Merck Sharp & Dohme Research Laboratories

West Point, PA 19486

EEO/AA/VH/EMPLOYER



MERCK & CO., INC.

Toxicologist

The Drug Safety Evaluation Department of Pfizer Central Research has an opening for a research scientist with a DVM or PhD in toxicology, pharmacology, physiology or a related field. Pharmaceutical or related toxicological experience is desirable but not required.

Responsibilities will include protocol design, safety study supervision, data analysis and preparation of reports for IND-NDA submissions. Effective oral and written communications skills are essential.

This position offers an excellent opportunity for professional recognition and career growth. We offer an excellent salary, benefit and relocation package plus an attractive southeastern Connecticut shore location. Qualified applicants should submit their resume, including the names, addresses and phone numbers of three professional references to: Dr. J.K. Larson, Manager of Employment, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



An equal opportunity employer

POSITIONS OPEN

FOOD MICROBIOLOGIST DEPARTMENT OF FOOD SCIENCE AND TECHNOLOGY VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY BLACKSBURG, VIRGINIA

The Department of Food Science and Technology at Virginia Polytechnic Institute and State University (VPI & SU) invites applications for a tenure-track, calendar-year faculty position in the area of **food microbiology**. Special consideration will be given to candidates with experience in dairy food processing, fermentations, toxicology, or biotechnology. Duties include the development and maintenance of an aggressive extension program in food microbiology for the Virginia dairy and food processing industry, the supervision of graduate students, and the development of an independent research program. Salary is dependent upon qualifications and rank. Position is available in fall 1985 and applications will be accepted up to 15 September 1985 or until a suitable candidate is located. *Women and minority candidates are especially encouraged to apply.* Send résumé, transcripts, and three letters of reference, and a two-page statement of research interests to:

Dr. Merle D. Pierson, Head
Department of Food Science and Technology
Virginia Polytechnic Institute and State University
Blacksburg, Virginia 24061

****Only if applicant has received a Ph.D. after 1980.**
VPI & SU is an Equal Opportunity/Affirmative Action Employer.

NEUROSCIENCE RESEARCH POSITIONS available for postdoctoral scientist interested in adult and/or child psychopathology at a Research Psychiatric Institute affiliated with New York University, Department of Psychiatry. Tenure-track and academic appointment available for individual with established competence. Generous benefits; New York State position in Rockland suburb of New York City. Send curriculum vitae to: Search Committee, NATHAN S. KLINE INSTITUTE FOR PSYCHIATRIC RESEARCH, Orangeburg, N.Y. 10962. An Equal Opportunity Employer, M/F.

POSITIONS OPEN

The Department of Land, Air and Water Resources, University of California, announces a position in the area of **HYDROLOGY**. Tenure-track (11 months plus 1 month of paid vacation) position, 30 percent teaching and 70 percent research. Appointment will be at the assistant or associate professor level, depending on qualifications.

Qualifications: A Ph.D. in a scientific or engineering discipline applicable to quantitative analyses in hydrology, particularly in surface water hydrology relating to soil and water management, the rural environment, risk assessment and management, climatic viability and physical, chemical, and biological processes. A strong background in statistics and/or computational methods is desired. The appointee will take part with other faculty in teaching and advising in hydrology at the undergraduate and graduate level.

Applications: Send a statement of teaching and research background and interests, curriculum vitae, official undergraduate and graduate transcripts, list and copies of publications and current manuscripts, summary or abstract of Ph.D. dissertation, and names and addresses of three referees by 15 September 1985 to: Dr. V. H. Scott, Chair, Hydrology Search Committee, Department of Land, Air and Water Resources, Veihmeyer Hall, University of California, Davis, Calif. 95616. (Position available on or before 1 January 1986.)

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

BIOLOGIST. Kalamazoo College invites applications for a 1-year, non-tenure track position in the area of **POPULATION BIOLOGY AND EVOLUTION**. Teaching responsibilities include evolutionary biology, genetics, participation in a freshman-level course in populations and ecosystems, and one or more additional courses utilizing mathematical or computer analysis. Ph.D. desirable. Applications and three letters of reference should be sent by 1 August 1985 to: Dr. Charles E. Deutch, Department of Biology, Kalamazoo College, Kalamazoo, Michigan 49007. Starting date for the position is 23 September 1985. *Kalamazoo College is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

LECTURER IN BOTANY. A position of lecturer, University of Vermont, Botany Department, will be available 1 January 1986. Candidates must have a Ph.D. degree in ecology or a natural science discipline with emphasis on field studies, a multidisciplinary background, holistic philosophy, and freedom to travel. The appointee will supervise a field naturalist master's program designed to train comprehensive field scientists. The position is 12 months, full-time at an annual salary of \$22,000. Appointment is for 1 year with reappointment dependent on performance and continuation of funding. Send résumé and transcripts and have three letters of recommendation sent by 15 October 1985 to: Hubert W. Vogelmann, Botany Department, University of Vermont, Burlington, Vermont 05405-0086. *The University of Vermont is an Equal Opportunity Employer.*

NEUROSCIENTIST. The Division of Neurosurgery of New York Medical College announces its search for a research scientist (M.D. or Ph.D.) whose interests would allow collaborative efforts with clinicians interested in the following areas: head trauma, brain tumors, stroke/cerebrovascular disease, and pain. Applications are sought for individuals with at least a 2-year period of postdoctoral training in this area. The successful candidate will have a joint appointment in a basic science department and can expect financial support. Please send letters of application, curriculum vitae, and letters from three references to: Dr. Jack Stern, Director of Research, Division of Neurosurgery, New York Medical College, Valhalla, New York 10595.

POSTDOCTORAL IN BIOLOGIC APPLICATION OF ESR. A 2-year position will become available immediately involving the continuing development of an electron spin resonance spectrometer for in vivo measurements, with application to radiation biology. Expertise in radiofrequency and/or spin resonance physics or chemistry is preferred. Please send curriculum vitae, publication list, and references to: Professor Howard J. Halpern, Department of Radiation Oncology, Pritzker School of Medicine, University of Chicago, Box 440, 5841 South Maryland Avenue, Chicago, Ill. 60637.

FERMENTATION MICROBIOLOGIST

Cargill, Inc., a leading international agri-business firm, has an immediate opening for a Research Microbiologist to work in our Minnetonka Research Building.

Qualified candidates should have:

- Minimum of Masters in Microbiology (or Bachelor's with a minimum of 3 years hands-on experience).
- Fermentation process experience desirable.

This position offers opportunity for growth, competitive salary, and excellent benefits package. If qualified, please send resume to the address below. The cooperation of applicants and agencies in not phoning is appreciated.

Nancy Siska
Cargill, Inc.
P.O. Box 9300
Minneapolis, MN 55440

Equal Opportunity Employer



Senior Environmental Toxicologist

Location: Duxbury,
Massachusetts

Battelle, one of the world's leaders in contract R&D, is seeking a senior level marine or aquatic toxicologist with experience in the performance of GLP aquatic toxicology programs. The individual will be expected to play a leadership role in developing and directing contract research programs in marine toxicology for regulatory compliance. Commitment to a high level of quality assurance/quality control is essential.

We offer an excellent opportunity for career development, competitive salary, and generous benefits. Send curriculum vitae, descriptions of relevant experience, and references to: Joan Sundstrom, 397 Washington Street, Duxbury, Mass. 02332.



Battelle

Equal Opportunity Employer M/F

Medicinal Chemist

The Medicinal Chemistry Department of Smith Kline & French Laboratories has an excellent career opportunity for an outstanding chemist. The selected individual will work in a state-of-the-art research facility in the Philadelphia suburbs near Valley Forge and will assist in the synthesis and design of molecules destined to interrupt enzymatic processes; interpret analytical data to confirm structures; suggest and examine alternate synthetic routes; and effectively communicate results.

The successful candidate will possess the following:

- B.S. or M.S. in Chemistry or equivalent experience.
- Experience in synthetic organic chemistry essential.
- Excellent working knowledge of reaction mechanisms.
- Skilled in modern methods of isolation of reaction products.
- Skilled in the use of modern physical methods to assign structure of reaction products.

We offer an excellent compensation, benefits and relocation package as well as the opportunity for personal and professional growth. Please reply in confidence to George P. Kissell, Jr., Manager, Personnel Relations, Smith Kline & French Laboratories, 1592 Spring Garden St., Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.

SK&F

A SmithKline Beckman Company

**DEAN
College of Veterinary Medicine
and Biomedical Sciences**

Colorado State University (CSU) invites nominations and applications for the position of dean of the College of Veterinary Medicine and Biomedical Sciences. The position requires an experienced administrator to provide leadership in education, research, and service for a western regional professional veterinary medical program and for six departments offering baccalaureate and graduate degrees in the biomedical sciences. An earned doctorate of veterinary medicine degree is required. Postgraduate study, specialty certification, experience in veterinary education, and a record of research accomplishments are desired. Position starts 1 January 1986, or later. Salary commensurate with qualifications.

Applications should include a complete résumé and the names and telephone numbers of at least three references. Nominations and applications should be mailed by 15 September 1985 to:

**John C. Raich
Dean, College of Natural Sciences
Colorado State University
Fort Collins, Colorado 80523**

CSU is an Equal Opportunity/Affirmative Action Employer. Equal Opportunity office: 314 Student Services Building.



**DEPUTY DIRECTOR
ASSOCIATED WESTERN UNIVERSITIES, INC.**

Applications and nominations are invited for the position of Deputy Director, Associated Western Universities, Inc. (AWU). AWU is a non-profit organization serving as liaison among 36 member universities and 26 Department of Energy (DOE) research facilities; the organization is engaged in the support of basic research funded by DOE. AWU has an annual budget of \$1.5 million and over the past 20 years has provided over 3,000 appointments to faculty, post-graduates, graduates and undergraduates in energy-related research programs.

Applicants should possess proven administrative and management skills, excellent communicative capability, an earned doctorate, a strong record of research in engineering or physical sciences, and experience in academic setting, or equivalent education/experience. Additionally, experience in, or extensive interaction with, one or more government agencies is desirable.

Initially the Deputy Director will assist the Executive Director in all phases of the position, including contract negotiation, review of applications for research participation at labs, and development of interaction among member universities, research laboratories and DOE. This is a 12-month position with a salary range to \$50,000 depending on qualifications and experience. The Deputy Director will be considered as a prime candidate for advancement to Executive Director in June 1987, when the Executive Director retires.

Qualified candidates should send their resumes by September 30, 1985, to:

Dr. Leland M. Shannon, Chairman
AWU Board of Directors
Associated Western Universities, Inc.
142 East 200 South, Suite 200
Salt Lake City, UT 84111

AWU is an equal opportunity, affirmative action employer; ethnic minorities and women are expressly invited to apply.

**The Biomedical Research Centre
University of British Columbia
Vancouver**

Scientific Director

This new research institute established jointly by The Wellcome Foundation Limited, one of the world's major pharmaceutical companies and the Terry Fox Medical Research Foundation, a Canadian charity, will be sited on the campus of the University of British Columbia, Vancouver. The primary focus of its work will be the role of biologically active proteins in the control of cell growth, division and differentiation, with special reference to their evaluation as potential medicinal substances.

The Centre will be closely associated with the University Health Sciences Centre Hospital providing the opportunity to extend the results of basic scientific research to practical application. There will also be access to a pilot fermentation plant and interaction with University programmes will be encouraged.

The Scientific Director will be accountable for the effective utilisation of this custom-built, 35,000 sq.ft. facility, in the fields of scientific research. Leading a team of up to 100 people, with start up funds of Canadian \$23m over 5 years,

he/she will be responsible for establishing the Centre as a unique venture of international standing.

Candidates must have a record of scientific achievement of a quality which will attract scientists of the highest calibre to the Centre. Experience in an area of cell or molecular biology is essential and a medical qualification would be an advantage. A proven ability to direct or manage in an entrepreneurial environment and a commitment to a practical approach to science will be equally important.

Salary and other benefits will be negotiable and commensurate with the key nature of the post.

The appointment will be made in accordance with Canadian immigration requirements and equal opportunities will be given to male and female applicants.

Applications or nominations are invited by 31st July 1985 and should be forwarded to The Terry Fox Medical Research Foundation, Suites No. 1130-1176, West Georgia Street, Vancouver, British Columbia V6E 4A2, Canada, from where further particulars can be obtained.

POSITIONS OPEN

Position: PATHOLOGIST—EXPERIMENTAL AND/OR COMPARATIVE. Requirements: M.D., D.V.M., or Ph.D. in pathology, Board-certified or eligible. Duties: Research and diagnostic service in a comprehensive pathology laboratory in a large, modern research facility. Independent research in one or more areas of interest, as well as collaborative studies with departmental research staff. Diagnostic service will involve human and animal pathology if applicant holds an M.D. Facilities for morphologic studies are excellent, including quantitative light microscopy, TEM, SEM and high-voltage electron microscopy. The Wadsworth Center has ongoing programs in every area of basic and applied biomedical science, clinical and environmental. Salary: Open, dependent on degrees, certification held, and experience. Send résumé to: **Doris N. Collins, M.D., Wadsworth Center for Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, N.Y. 12201.**

POSITIONS OPEN

POSTDOCTORAL POSITION. Available in September 1985 to study the immune response to small molecular weight toxins. Experience in idiotype, anti-idiotype network, and hybridoma technology helpful. Require Ph.D. in micro/immunology and experience in immunochemistry. Send curriculum vitae and three letters of recommendation to: **Dr. Tran C. Chanh, Assistant Professor of Microbiology and Pediatrics, Lombardi Cancer Research Center—S Level, Georgetown University School of Medicine, 3800 Reservoir Road, NW, Washington, D.C. 20007.**

POSTDOCTORAL POSITION available 1 September 1985 for studies of muscle contraction using paramagnetic probes. Experience in the techniques of physical chemistry is desirable. Send résumé to: **Dr. Roger Cooke, 841 HSW, University of California, San Francisco, Calif. 94143. The University of California is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

FULL-TIME POSITION AS MASS SPECTROMETRY OPERATOR—A full-time position is available for gas chromatography-mass spectrometry operator in the Clinical Mass Spectrometry Laboratories of the Department of Pediatric Gastroenterology Nutrition. The person will take responsibility for the day-to-day running and maintenance of a Finnigan 4635 Quadrupole Mass Spectrometer equipped with turbomolecular pumps and with EI, CI PPINICI, DISIMS, and thermospray facilities. In addition, the laboratory has a Varian 5000 series HPLC and two capillary column gas chromatographs. The department is engaged in the qualitative and quantitative analysis of a variety of compound classes including bile acids, steroids, sterols, and xenobiotics in various gastrointestinal diseases. The candidate should have knowledge of vacuum technology, electronics and computers, and previous experience in the operation and routine maintenance of mass spectrometry instruments and peripheral equipment would be preferred. Salary is negotiable but in accordance with previous experience. Candidates interested should apply in writing, enclosing curriculum vitae and the names of two references, to: **Human Resources Department, CHILDREN'S HOSPITAL MEDICAL CENTER, Elland and Bethesda Avenues, Cincinnati, Ohio 45229. An Equal Opportunity Employer, M/F.**

UNIVERSITY OF MANITOBA DEPARTMENT OF HUMAN GENETICS MOLECULAR GENETICIST

The Department of Human Genetics, Faculty of Medicine, University of Manitoba, invites applications for a full-time assistant professor to commence as soon as possible and certainly by 1 January 1986. Applicants should have demonstrated research experience in molecular genetics, particularly in the areas of genome organization, control of gene expression, or gene mapping. A Ph.D., postdoctoral training, and potential for an independent career as an experimental scientist are prerequisites.

The university encourages both women and men to apply for positions. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

A concise description of projected research goals and interests, the names of at least three referees, and curriculum vitae should be sent to: **Dr. John L. Hamerton, Department of Human Genetics, Faculty of Medicine, University of Manitoba, 250—770 Bannatyne Avenue, Winnipeg, Manitoba, Canada R3E 0W3.**

NEUROBIOLOGIST. Postdoctoral fellow to collaborate in electrophysiological studies of single vertebrate photoreceptors, using patch-clamp and suction-electrode techniques. Send curriculum vitae and at least two letters of reference to: **Dr. Gary G. Matthews, Department of Neurobiology and Behavior, State University of New York (SUNY)—Stony Brook, Stony Brook, N.Y. 11794. SUNY-Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK Number 133.**

POSTDOCTORAL OPENINGS DEPARTMENT OF MOLECULAR BIOLOGY PRINCETON UNIVERSITY

Several postdoctoral positions are available in the areas of molecular biology, genetics, and cancer biology. Applicants should send curriculum vitae, references, and a brief description of research interests to: **The Postdoctoral Program, Department of Molecular Biology, Princeton University, Princeton, N.J. 08544. Princeton University is an Equal Opportunity/Affirmative Action Employer, M/F.**

POSTDOCTORAL POSITIONS HOWARD HUGHES MEDICAL INSTITUTE/PHILADELPHIA

Fully funded postdoctoral positions in molecular biology and molecular genetics are now available at the Howard Hughes Medical Institute of the University of Pennsylvania. Active research projects include: transcriptional and translational control of eukaryotic gene expression, mechanisms of cellular transformation and gene amplification, molecular mechanisms of chromatin inactivation, and the application of molecular genetics to studies of inherited disease.

For information, please contact:

**Dr. Steve Liehaber, Coordinator
Howard Hughes Medical Institute
Department of Human Genetics
Medical Laboratories Building/G3
University of Pennsylvania School of Medicine
Philadelphia, Pa. 19104**

INVITRON CORPORATION

Invitron, a leading manufacturer of important biomolecules utilizing highly proprietary cell culture technology, is accepting resumes for the following positions:

DIRECTOR, PROCESS PURIFICATION

A Ph.D.-level biochemist with several years post-doctoral process development experience in the biotechnology industry. Specific experience with large volume concentration technologies, engineering on-line processing steps, and the purification of polypeptide biomolecules is required.

Further skills required in this position include demonstrated expertise in applying affinity chromatography, including the utilization of monoclonal antibody strategies, to specific purification problems.

Experience with fast flow/high pressure chromatographic techniques is necessary. A working knowledge of CGMPs is highly desirable, as is experience with the processing of cell culture fluids. Strong analytical training is a must.

This position will involve directing a staff of trained professional chemists and engineers in our process purification department, and thus requires strong managerial and supervisory skills.

ANALYTICAL CHEMIST

This individual will be responsible for establishing, validating and operating a pharmaceutical Quality Control laboratory for the evaluation of biological products derived from mammalian cell culture. Candidates will be degreed (preferably M.S.) and will have current expertise in a variety of immunological, enzymatic and biochemical techniques including ELISA, RIA, chromogenic assays, HPLC, microkjeldahl and various electrophoretic methods. Previous experience in a decision-making capacity is required.

We offer excellent compensation and benefits, relocation assistance and opportunity for personal growth. Interested candidates are requested to submit detailed c.v., including publications, salary history and the names of three references to:



**INVITRON CORPORATION
8000 Maryland Avenue, #860
Clayton, MO 63105**

Attention: Personnel Manager

Scientific Advisor, Immunology



American Hospital Supply Corporation is seeking an experienced immunologist to work in its Hospital Applied Research Group located in Southern California.

The successful candidate will possess broad state-of-the-art training in clinical immunology, an appropriate doctoral degree, and a minimum of 5 years of clinical/industrial experience with emphasis on *in vitro* diagnostics.

The position requires an ability to work independently and in a multi-disciplinary setting that encompasses engineering, chemistry, and materials science. You will have responsibility for developing new business opportunities in immunology via both in-house and outside research efforts.

If you possess the above qualifications and desire a challenging and responsible position, please send resume outlining professional background in complete confidence to: **S. Deitch, Hospital Applied Research, P.O. Box 5900, Valencia, CA 91355-8900.** We are an equal opportunity employer m/f.

**American Hospital
Supply Corporation**



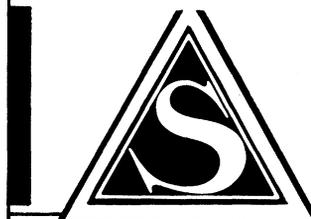
Senior Scientist/ Drug Development

Sandoz, Inc. is responsible for pharmaceutical products that improve the quality of life. Our developments are the result of research conducted by professionals who specialize in many different fields.

We have an immediate opening for an M.S. or Ph.D. Chemist in drug development for the synthesis of radiolabelled compounds. He/She will have demonstrated a thorough background in micro and semimicroscale organic synthesis and in pertinent analytical methodologies as evidenced by publications, patents, postdoctoral and/or industrial experience. Familiarity with ³H and ¹⁴C radiolabelling techniques and knowledge of regulatory aspects of handling radioisotopes are desirable. The candidate will interact with professionals in other areas of drug development to establish optimal requirements for synthetic route and site of label, product purity and quantity; and scheduling. Excellent oral and written communication skills and a propensity to work in an interdisciplinary environment will be definite assets.

Positions at Sandoz offer personal satisfaction, professional opportunity/challenge, competitive salaries and excellent benefits package. Our campus-like facilities are conveniently located in northern New Jersey.

For prompt consideration, please forward your resume and salary requirements in confidence to:



**Personnel Manager
Sandoz Research Institute
Sandoz, Inc.**
(403-1)
East Hanover, N.J. 07936

An Equal Opportunity Employer M/F

Plant Cell Biologists

The Agricultural Research Division of American Cyanamid has immediate opportunities for Plant Cell Biologists who will form the nucleus of a program to regenerate from culture crops resistant to our new herbicides.

We seek individuals whose strong background in regeneration of plants from cell and tissue cultures prepares them to play a significant and highly visible role in this project. Your qualifications should include 2-3 years' active and highly productive experience in Post-Doctoral cellular or molecular biology.

In return, we offer a very competitive compensation and benefits package and the opportunity for significant professional growth and advancement. For prompt and confidential consideration, forward your resume, including salary requirements, to: Employment Office



American Cyanamid Company
Agricultural Research Division
P.O. Box 400
Princeton, New Jersey 08540
An Equal Opportunity Employer M/F/H
No Agencies Please

DIRECTOR, IDAHO AGRICULTURAL EXPERIMENT STATION AND ASSOCIATE DEAN, COLLEGE OF AGRICULTURE

University of Idaho, Moscow

The University of Idaho is seeking an accomplished scientist and administrator to serve as director of the Idaho Agricultural Experiment Station and associate dean of the College of Agriculture. Agricultural research at the university is conducted at the home station in Moscow and at seven research and extension centers throughout the state. The diversity of Idaho agriculture is reflected in the research programs being conducted by the College of Agriculture.

Responsibilities: The director of the Idaho Agricultural Experiment Station has major responsibilities to:

- Serve as the chief administrative officer of the Idaho Agricultural Experiment Station.
- Evaluate research productivity of the agricultural college's departments.
- Optimize allocation of resources to research.
- Aid research faculty in competing for funds.
- Maintain a working relationship with agricultural commodity groups, industry representatives, the public, and government officials.
- Prepare and present budgets and reports of the experiment station.
- Develop sources of extramural funding and foster interdisciplinary research.
- Coordinate and provide leadership for all research in the college.

The director reports to the dean of the College of Agriculture. Qualifications: A Ph.D. in the agricultural sciences or a closely related field is required. Demonstrated research experience and excellence is essential. Thorough understanding of the land-grant agricultural experiment station system and demonstrated administrative experience are required. The candidate must have a proven ability to communicate and coordinate with diverse groups, such as faculty, industry personnel, and government officials. A broad experience or knowledge across several agricultural discipline areas is desirable.

Salary: The salary is competitive and will be related to qualifications and experience.

Application procedure: Applications, a complete résumé, and five letters of recommendation must be postmarked by 30 September 1985. Send applications to: **Dr. Donald C. Thill, Chairman, Search Committee, Department of Plant, Soil and Entomological Sciences, University of Idaho, Moscow, Idaho 83843.**

The University of Idaho is an Equal Opportunity Institution

POSITIONS OPEN

PROFESSORIAL POSITION NMR SPECTROSCOPIST

The Division of Biochemistry, Department of Human Biological Chemistry and Genetics, University of Texas Medical Branch, Galveston, Texas, invites applications for appointment to a 12-month, tenure-track position at the professorial rank. The successful candidate for this position should have an earned doctorate in the basic sciences and an outstanding record of publications and accomplishments in NMR spectroscopy.

Equipment available for this position includes a JEOL GX270WB spectrometer and ready access to a recently designed analytical facility that will house the NMR spectrometer, GC/MS spectrometers, an x-ray diffractometer, extensive HPLC capabilities, and related analytical equipment.

The successful candidate will be expected to interact with faculty who use a 0.6-tesla NMR whole-body imaging instrument and to play a role in the development of extensive *in vivo* NMR spectroscopic and imaging capabilities on this campus. The position is available immediately. Letters of application must include curriculum vitae and three references. Applications must be received by 1 November 1985 and should be addressed to:

Dr. Creed W. Abell
Director, Division of Biochemistry
Department of Human Biological
Chemistry and Genetics
The University of Texas Medical Branch
Galveston, Tex. 77550

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION

Position open January 1986. To study the global control of gene expression in *Salmonella typhimurium* including oxygen-regulated and starvation-regulated stimulons. Experience in microbial genetics, recombinant DNA, or two-dimensional gel electrophoresis preferred. Salary range: \$17,000 to \$19,000, commensurate with experience. Please send curriculum vitae and names of three references to: **Dr. John W. Foster, Department of Microbiology, Marshall University School of Medicine, Huntington, West Virginia 25704.**

BOSTON AREA POSTDOCTORAL POSITION

Two-year, well-paid postdoctorate for person with experience in molecular biology/cell culture/embryology/endocrinology. Interests of this laboratory center on differentiation and hormone regulation of gene expression and cell division in the frog liver system. Available starting 1 September 1985. Send curriculum vitae and three letters of recommendation to:

Dr. Larry Wangh
Department of Biology
Brandeis University
Waltham, Mass. 02254

POSTDOCTORAL POSITION

Position available to study the biochemistry, immunology, and genetics of a human malaria parasite. Duration: 2 years, starting as soon as possible. Experience in biochemistry, immunochemistry, or recombinant DNA techniques desirable. Send curriculum vitae and names of three references to:

Dr. Joseph Inselberg
Department of Microbiology
Dartmouth Medical School
Hanover, N.H. 03756
603-646-7666

Dartmouth College is an Affirmative Action Employer.

POSTDOCTORAL RESEARCH POSITION available immediately for 2 years for individual interested in studying the effects of steroid hormones on the differentiation of neurotransmitter systems. Methods currently in use include HPLC, immunocytochemistry, radioisotope assays, autoradiography, computer analysis of protein patterns on 3-D gels, tissue culture, and cDNA hybridization. Applicant will be expected to apply cDNA technology to study development and regulation of neuron-specific mRNA's. Experience in neurochemistry, molecular biology, and developmental neurobiology desirable. Send curriculum vitae, brief description of research interests, and names of three references to: **M. Bohn, Department of Neurobiology and Behavior, State University of New York (SUNY) at Stony Brook, Stony Brook, N.Y. 11794. SUNY-Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK Number 147-85.**

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study anti-sense RNA control of gene expression in transposable elements. Background in molecular biology and/or prokaryotic genetics preferred, but other areas are also welcome. Send curriculum vitae and names of three references to: **Dr. Robert W. Simons, Department of Microbiology and the Molecular Biology Institute, University of California, Los Angeles, Calif. 90024. Telephone: 213-825-8890. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION MOLECULAR APPROACHES TO GENE REGULATION AND EVOLUTION

A position is available immediately for a colleague who can use recombinant DNA technology to compare patterns of gene regulation in different species of *Drosophila*. This is part of ongoing projects concerned both with molecular mechanisms of gene regulation and with the evolutionary significance of changes in regulatory genes. Address applications or nominations to: **Dr. W. J. Dickinson, Department of Biology, University of Utah, Salt Lake City, Utah 84112. The University of Utah is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION IN CANCER BIOLOGY available immediately to participate in DNA transfection studies to generate new human leukemia and lymphoma cell lines useful for the production of human monoclonal antibodies. Applicant will be trained in advanced cell culture techniques, DNA transfection and molecular biology, and monoclonal antibody methods. Please submit curriculum vitae and the names of three references to: **Alan L. Epstein, M.D., Ph.D., Department of Pathology, University of Southern California (USC) Medical Center, 2025 Zonal Avenue, Los Angeles, Calif. 90033. USC is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION: MECHANISMS OF MUTAGENESIS BY DNA ADDUCTS. Project involves the construction of DNA vectors containing specific DNA adducts and the study of the mutagenic consequences of these adducts *in vitro* and *in vivo* (initially, in *Escherichia coli*). Work involves genetic, recombinant DNA, DNA chemical synthetic and analytical (especially HPLC) techniques. The approximate starting date is January 1986. Send curriculum vitae and three letters of recommendation to: **Dr. Edward L. Loechler, Department of Biology, 2 Cummings Street, Boston University, Boston, Mass. 02215.**

POSTDOCTORAL POSITIONS IN T CELL IMMUNOLOGY. Positions will be available as of 1 August 1985 for two postdoctoral fellows interested in studying the role of T cells in viral infections (herpes simplex types 1 and 2 and rabies) and autoimmune disease (EAE and allergic uveitis). Emphasis will be placed on the study of synthetic peptide determinants and correlates with *in vivo* protection. Experience in molecular biology and the desire to apply these techniques to problems of T cell receptor biology and Ia-antigen presentation is highly desirable. Address curriculum vitae and names of references to: **E. Heber-Katz, Ph.D., THE WISTAR INSTITUTE, 36th and Spruce Streets, Philadelphia, Pa. 19104. Equal Opportunity Employer.**

DEPARTMENT OF PHARMACOLOGY HARVARD MEDICAL SCHOOL

A **POSTDOCTORAL POSITION** will be available in **vision biochemistry** in late fall 1986 to study chemical and biochemical mechanisms of vertebrate visual transduction and adaptation. Applicants should have a strong background in protein purification and/or enzymology. The starting salary will be determined by quantification and NIH guidelines. Send curriculum vitae to: **Professor Robert R. Rando, Department of Pharmacology, Harvard Medical School, Boston, Mass. 02115. Harvard University is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH BIOCHEMIST. Position available to study the conformation of acetylcholinesterase and acetylcholine receptor upon binding of anticholinesterase compounds. Experience in protein purification and characterization desirable. Salary: approximately \$20,000 per year. Position available now. Please send résumé, summary of research experience, and letters of recommendation to: **Dr. J. T. Yang, 841-HSW, University of California, San Francisco (UCSF), San Francisco, Calif. 94143. UCSF is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION available beginning September 1985 for 2 to 3 years to study enzyme synthesis and degradation. Investigations will include biochemical parameters and molecular analysis of genes encoding of extrahepatic drug metabolism. Experience in molecular genetics/biochemistry is desirable. Applications will be accepted until 28 July 1985. Please send curriculum vitae, including salary requirement, as well as brief description of research interest to: **Dr. Nader G. Abraham, Department of Medicine, New York Medical College, Valhalla, New York 10595.**

POSTDOCTORAL POSITION—Available during 1985/1986 to study the mechanism of action of nerve growth factor and its role in the transformed phenotype of melanoma using recently developed monoclonal antibodies to the NGF receptor and the cloned NGF receptor gene. Experience in monoclonal antibodies, membrane proteins, and DNA technology desirable. Support available for 3 years at NIH scale. Submit curriculum vitae and three letters of recommendation to: **Dr. Alonzo H. Ross, THE WISTAR INSTITUTE, 36th and Spruce Streets, Philadelphia, Pa. 19104. Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS IN MOLECULAR BIOLOGY AND BIOPHYSICS

Positions are currently open and funded in one or more of the following areas of investigation: (i) synthesis of completely defined, carcinogen-modified deoxyribonucleotides, (ii) conformational studies of carcinogen-modified oligonucleotides, (iii) site-specific mutagenicity studies employing synthetic oligonucleotides, and (iv) protein-DNA interactions. To apply, send curriculum vitae and three letters of reference forwarded to: **Dr. Thomas Meehan, Department of Pharmaceutical Chemistry, University of California, San Francisco, Calif. 94143.**

POSTDOCTORAL POSITION IN CELL BIOLOGY

Available both immediately and for July 1986. Position supported by NIH training grant. Various aspects of the regulation of fetal and placental growth and differentiation by growth factors and hormones are under investigation. A successful candidate should have a strong background in endocrinology and/or cellular physiology. For further information, write to: **Dr. Lawrence D. Longo, Division of Perinatal Biology, Department of Physiology, School of Medicine, Loma Linda University, Loma Linda, Calif. 92350. Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH POSITION available in 1985. Ph.D. in biochemistry to participate in an ongoing project concerning advanced glycosylation end products on proteins and their role in aging. This position offers a competitive salary and is renewable after 1 year. Qualified individuals should be knowledgeable in biochemical procedures, including radioimmunoassay and tissue culture. Submit your curriculum vitae and three references to: **Anthony Cerami, Ph.D., Laboratory of Medical Biochemistry, The Rockefeller University, 1230 York Avenue, New York, N.Y. 10021.**

POSTDOCTORAL—RESEARCH ASSOCIATE POSITIONS

Available now to investigate mechanisms of regulation of lipoprotein lipase and hepatic lipase protein synthesis and catalytic activities. Cell culture (liver, adipocyte, endothelial), molecular biology, immunochemical (monoclonal antibodies), and recombinant DNA technique approaches are employed. Applicants should have training in biochemistry or molecular biology. Experience with recombinant DNA desirable. Send résumé and names of three references to: **Dr. Andre Bensadoun, Division of Biological Sciences and Nutritional Biochemistry, 242 Savage Hall, Cornell University, Ithaca, New York 14853.**

POSTDOCTORAL/RESEARCH ASSOCIATE positions are available immediately for biochemical studies on GABA and glutamate receptors. The applicants should have background in biochemistry. Experience in neuroscience, neurotransmitter receptors, and/or pharmacology are helpful. The aims of the research are to compare insect receptors with those of mammals. Stipend from \$17,000 to \$19,000, depending upon experience. Send curriculum vitae and names of three references to: **Dr. A. T. El-defrawi, Department of Pharmacology and Experimental Therapeutics, University of Maryland School of Medicine, Baltimore, Md. 21201.**

RESEARCH ASSISTANT

We have an immediate need for a Research Assistant in our biochemistry department. The applicant must possess a BS or MS degree with relevant research laboratory experience in biochemistry, pharmacology or biology. Our laboratory is primarily involved in the study of polyamine biosynthesis and function in parasitic protozoa (eg. trypanosomes). Experience with enzyme assays, HPLC, cell culture techniques and small animal handling is desirable.

The successful candidate will work on the development of new chemotherapeutic agents for the treatment of parasitic diseases.

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POSTDOCTORAL POSITION open immediately in virology to work with oncogenic herpesviruses. Must have experience in molecular virology. Send curriculum vitae and three letters of recommendation to: **Ronald Glaser, Ph.D., Department of Medical Microbiology and Immunology, Ohio State University College of Medicine, 333 West 10 Avenue, Columbus, Ohio 43210. Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE available 1 September 1985 to study the structure and functions of eukaryotic and prokaryotic cytochrome c oxidases using recombinant DNA techniques. Ph.D. degree in life or physical sciences required; experience in molecular genetics or biochemistry desirable. Salary: \$16,000 to \$18,000 per year, depending on experience. Closing date for receipt of applications is 1 August 1985. Send curriculum vitae and the names and addresses of three references to: **Dr. L. J. Prochaska or Dr. I. M. Leffak, Biological Chemistry, Wright State University, School of Medicine, Dayton, Ohio 45435.**

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RESEARCH ASSOCIATE

The Department of Biochemistry at The University of Texas Health Center at Tyler is seeking an individual with a master's degree in chemistry or biochemistry. Must have experience in protein chemistry, protein purification techniques, cell culture technology, ELISA, and other sensitive immunoassays. Must be able to work independently and show initiative in research and development matters.

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Full-time, permanent position to conduct research on insects pheromones and insect/plant interactions. M.S. in entomology/biology/biochemistry; experience with insect behavior, analytical techniques (GC, HPLC, electrophoresis), microscopy (LM, TEM, SEM). Available 1 August 1985. Send résumé, transcripts, and three letters of reference to: **Dr. Sonny Ramaswamy, Department of Entomology, Mississippi State, Miss. 39762. Telephone: 601-325-2085.**

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International Minerals & Chemical Corporation, a Fortune 200 company and a leader in the development of agricultural products and animal health pharmaceuticals, has an immediate opening for a supervisor—regulatory affairs in our Corporate Research & Development Center in Terre Haute, Indiana.

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POSTDOCTORAL POSITION available September 1985 for an appointment renewable for 3 years. Recent Ph.D. with strong interest in cell biology and biochemistry needed for research involving metabolic regulation in parasites. Enzyme purification and cell culture techniques helpful. Some light teaching required. Salary: \$20,000. Send résumé, statement of research interests, and names of three references to: **Dr. Cyrus Bacchi, Pace University, Haskins Laboratories, 41 Park Row, New York, N.Y. 10038. Pace University is an Equal Opportunity Employer.**

PROTEIN BIOCHEMISTRY

Centocor, Inc., is a rapidly growing company devoted to creating new and unique products by utilizing emerging biotechnologies.

A challenging career opportunity currently exists in the In Vivo Division of Product Development for a **protein chemist**. The individual in this position will supervise a group responsible for the technical development of monoclonal antibody-based radio-imaging agents. In addition to a Ph.D., qualified candidates must have a strong research background in protein chemistry and immunochemistry, with experience in various techniques of radiolabeling proteins. Applicants must have at least 2 years of postdoctoral experience and must demonstrate the ability to direct technical personnel. The ability to function effectively in a challenging and goal-oriented environment is essential.

Please submit curriculum vitae to: **Jeffrey A. Mattis, Ph.D., Centocor, Inc., 244 Great Valley Parkway, Malvern, Pa. 19355.**

RESEARCH ASSOCIATE (POSTDOCTORAL), ROCKEFELLER UNIVERSITY. Position available for research in area of membrane receptor biochemistry related to chemotherapy. Required: strong background in modern protein isolation and analytical electrophoretic techniques. Send résumé and references to: **Box 197, Rockefeller University, 1230 York Avenue, New York, N.Y. 10021. An Equal Opportunity Employer.**

RESEARCH ASSOCIATE position available immediately to do research on the role of polyuronides in the morphogenetic development of *Mucor*. Postdoctoral experience preferred in the area of polysaccharide biochemistry or fungal cell wall biosynthesis. Position for a minimum of 2 years. Salary: \$18,000 per year. Send curriculum vitae and three letters of recommendation by 15 August 1985 to: **Dr. Vicente D. Villa, Southwestern University, Georgetown, Texas 78626. Southwestern University is an Equal Opportunity/Affirmative Action Employer.**

SENIOR RESEARCH BIOCHEMIST

Seeking senior research biochemist to conceive, design, and perform experiments leading to the development of biochemical assays to investigate the mechanism of protein secretion in both eukaryotes and prokaryotes (*Bacillus subtilis*) systems, and the involvement of the signal peptides and analogues in this process. Duties will involve chemical synthesis of peptides and their analogues, high-pressure liquid chromatography, in vitro protein synthesis and secretion assays, tissue culture and microbiological techniques, radioiodination techniques, photoaffinity labeling, chemical cross-linking, raising antibodies to specific proteins and peptides, tissue and cellular fractionation, and messenger ribonucleic acid and deoxyribonucleic acid isolation. Candidate must have a Ph.D. in biochemistry; at least 3 years of experience in similar position or as research fellow, research microbiologist, research endocrinologist, and/or postdoctoral research fellow having appropriate experience and publications pertaining to protein synthesis and protein secretion. Salary: \$3,067 per month. Company hours: 8:30 a.m. to 5 p.m.; 40-hour week. Send résumé or curriculum vitae to: **Philadelphia Job Bank, 444 North 3 Street, Philadelphia, Pa. 19123, Order Number 3990402. An Equal Opportunity/Affirmative Action Employer.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP (1 to 2 years; Ph.D., M.D. or D.V.M.) available immediately in the Laboratory of Neuropharmacology, Department of Neurosciences, New Jersey Medical School. Research involves the neurochemical, anatomical, and physiological concomitants of regeneration and transplantation as they affect central noradrenergic neurons. Experience in neuropharmacology and/or neuroanatomy preferred. Please send curriculum vitae to: **Dr. Barry E. Levin, Neurology Service (127), VA Medical Center, East Orange, N.J. 07019.**

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TRAINING PROGRAM

POSTDOCTORAL TRAINING PROGRAM IN REPRODUCTIVE ENDOCRINOLOGY

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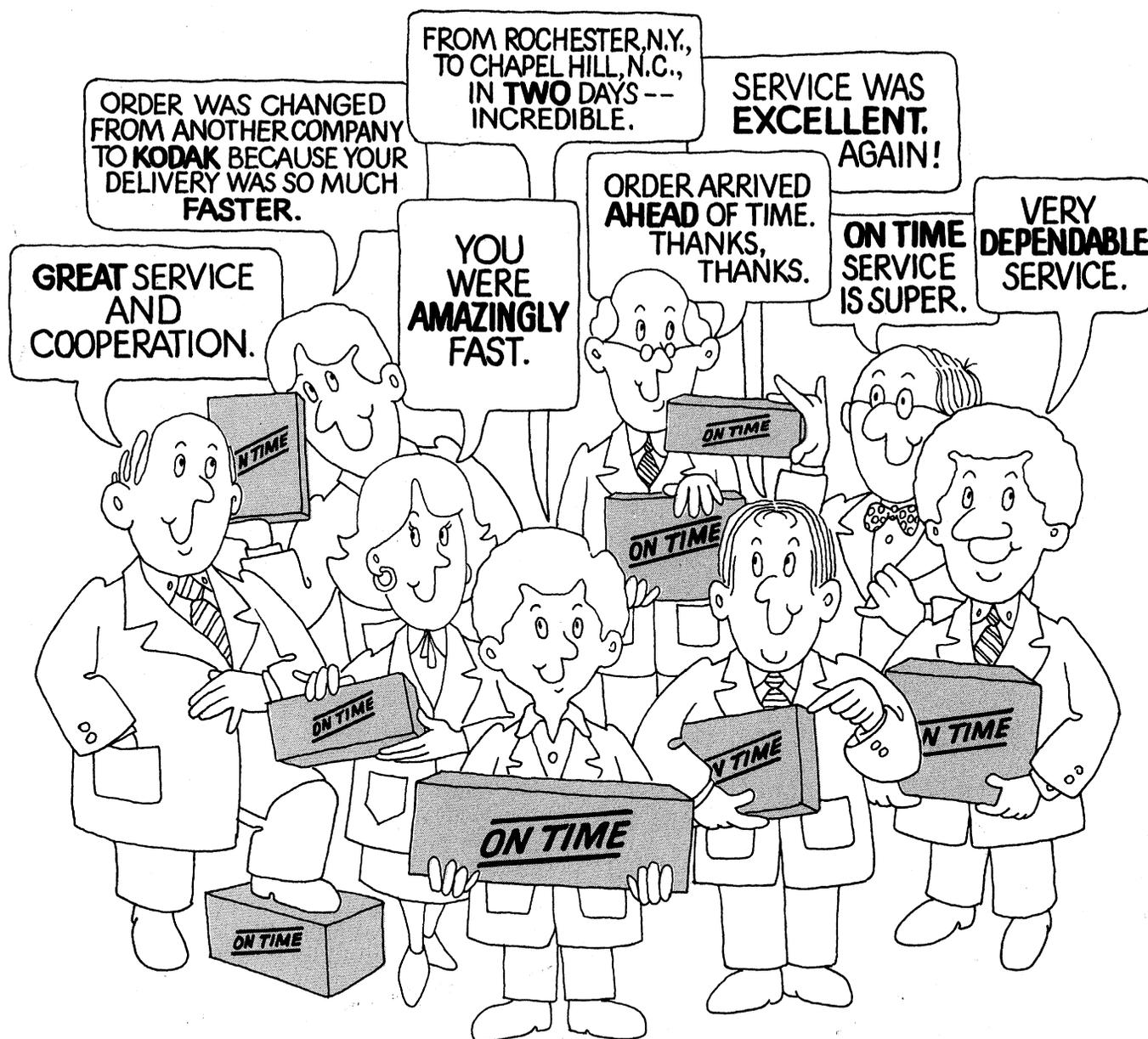
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