

that fractal models imitate many natural phenomena (clouds, clusters of stars, coastlines, and the like). Now they are the subject of a growing new interdisciplinary field. This book is the proceedings of one of the many meetings devoted to the subject in the last few years. It contains 33 papers, 11 accounts of lectures delivered at the meeting and 22 summaries of seminars.

Fractal concepts have been very useful in describing the physics of dilute fractal networks. Different physical properties are determined by different sub-groups of the bonds on such networks, and therefore one needs many fractal dimensionalities (in addition to D) to describe them. The "zoo" of necessary dimensionalities is reviewed in the book by Stanley, and some aspects of percolation theory are described by Stauffer. However, the main purpose of the book is to discuss growth and aggregation processes: in addition to studying the physical properties of an object given its geometrical characterization, the book aims to understand how such geometry is determined by the physical laws that generated the growth of the object.

Although there has been some progress toward a unified picture (all the phenomena listed below are somehow related to Laplace's equation), the field is at a phenomenological stage in which experimental and numerical results are collected and attempts are made to classify them. Such phenomena as flow in porous media, in which fractal "viscous fingers" are sometimes exhibited, dielectric breakdown, colloidal aggregation, dendritic growth, and electrodeposition have been found in diverse experiments to exhibit very similar fractal shapes for some range of length scales. Similar shapes have been produced by computer experiments, using the Diffusion Limited Aggregation (DLA) model of Witten and Sander. In that model, a seed is placed at the origin. A particle is then released at the boundary and performs a random walk until it touches the seed, where it stops. A new particle is then released, and so on. The resulting cluster is a fractal, with $D \approx 1.7$ at $d = 2$ and $D \approx 2.5$ at $d = 3$. The book contains many variants of these computer experiments and discusses possible relations between this simple stochastic growth model and the various experiments.

Stanley and Ostrowsky have succeeded in putting together an up-to-date collection of papers by leading researchers. As in any collection of papers, some subjects (such as the DLA model) are discussed repeatedly and others (such as turbulence, chaos, cellular automata and glasses) are not sufficiently discussed. The papers are not all at the same level: some are introductory, to be under-

stood with no background, and some (rather few!) are more technical.

The book is an excellent source of information about ongoing research. Those who want a full unifying understanding of growth patterns will have to wait several more years until the field fully matures. However, for those who want to enter this active, interesting field, the book is a good place to start.

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Transplanted Neurons

Neural Transplantation and Regeneration.

GOPAL D. DAS and ROBERT B. WALLACE, Eds. Springer-Verlag, New York, 1986. xiv, 330 pp., illus. \$105. Proceedings in Life Sciences. Based on a symposium, Boston, fall 1983.

The chapters in this proceedings volume are based on the work of ten laboratories. Although the chapters are not grouped according to content, they address three main issues. These are the effects of injury and transplantation of neural tissue on nonneuronal cells of the host nervous system, the restoration by neuronal transplants of functions lost in brain-damaged animals, and the influence of transplants on the regenerative response of the host brain.

Bignami, Chi, and Dahl and Smith and Ebner address the responses of astrocytes to injury and transplantation and the possible role these cells have in regeneration and in patterns of axonal growth from transplants. Bignami and co-workers also describe their research on the fibrinolytic system and postulate the role of this system in unsuccessful regeneration in the mature central nervous system. Plasminogen activator appears to play a role in normal embryonic development and regeneration in peripheral nerves but is not activated in injured CNS neuropile. These papers are interesting and enlightening. Rosenstein and Brightman discuss their studies in which peripheral nervous system ganglia are transplanted to the fourth ventricle, which leaves the underlying brain undamaged. Such transplants may provide a means of circumventing the blood-brain barrier, thereby allowing for the introduction of systemically administered substances into the CNS without injury to the brain. Such transplants also exert a neurotropic effect on the underlying brain to

cause rearrangement of the neural circuitry. Rosenstein and Brightman's results may lead to therapeutic techniques in the future.

It is now well established that transplants can be used to replace damaged or diseased parts of the central nervous system and restore function. Gage and Björklund and co-workers describe their elegant studies of the use of transplants in models of neurodegenerative diseases. They were able to use intracerebral grafts to reduce age-related functional deficits as well as to replace damaged circuits in animal models of Parkinson's and Huntington's diseases.

Several chapters examine the ability of transplants to permit or promote regeneration of the host nervous system. Berry, Rees, and Sievers, for example, describe the ability of sciatic nerve grafts to support regeneration of mature ganglion cell axons. Grafts of peripheral nerve have proven very effective in demonstrating that mature CNS, long thought incapable of regenerative responses after injury, does have the intrinsic ability to regenerate injured axons.

The long lag between the symposium and the publication of this book makes the work described in the book somewhat out of date. A number of books have recently been published on these topics, and the volume generally duplicates what has been reviewed elsewhere in more detail. The chapters are uneven in quality, and a number of important areas of research are not covered. A general introduction to the main issues examined in the book and a summary of the directions of current research would have greatly improved the book.

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Books Received

Actual Minds, Possible Worlds. Jerome Bruner. Harvard University Press, Cambridge, MA, 1986. xiv, 201 pp. \$15.

Adsorption Phenomena. Robert D. Harter, Ed. Van Nostrand Reinhold, New York, 1986. xx, 379 pp. \$42.50. Van Nostrand Reinhold Soil Science Series.

Advances in Enzyme Regulation. Vol. 24. George Weber, Ed. Pergamon, New York, 1985. xvi, 506 pp., illus. \$160. From a conference, Tübingen, West Germany, May 1985.

Advances in Organometallic Chemistry. O. A. Reutov, Ed. Mir, Moscow, 1985 (U.S. distributor, Imported Publications, Chicago). 264 pp., illus. \$9.95. Advances in Science and Technology in the USSR: Chemistry Series. Translated from the Russian edition (Moscow, 1984).

Advances in Penicillium and Aspergillus Systematics. Robert A. Samson and John I. Pitt, Eds. Plenum, New York, 1985. x, 483 pp., illus. \$85. NATO Advanced Science Institutes Series A, vol. 102. From a workshop, Amsterdam, May 1985.

Animal Thought. Stephen Walker. Routledge and Kegan Paul, Boston, 1985. xiv, 437 pp. Paper, \$15.95. Reprint, 1983 ed.

(Continued on page 894)

Glass Fittings

The Glass Connection is a system for making changes in configuration or for building or repairing laboratory glass systems without having to disassemble them. If a glass apparatus consists of tubing of 6, 8, or 12 mm (outside diameter), it can be changed with connectors and fittings from the Glass Connection. Fluid in the system contacts only glass and Teflon. These fittings and connectors are reusable. Fittings come in several shapes (U, Y, T, and L) and connectors consist of straight tubular sections of Teflon with Kel-F nuts on the ends. These nuts have tapered threads; as they are tightened over the connector, enough pressure is exerted on the glass tubing to form a firm seal. There are also straight and reducer fittings. Laboratory Supplies. Circle 556.

Neurotransmitter

AMPA is a synthetic analog of the naturally occurring ibotenic acid; however AMPA is biochemically stable in contrast to ibotenic acid. The neurotransmitter is 3-isoxazolo amino acid (*RS*)- α -aminio-3-hydroxy-5-methylisoxazole-4-4prpionic acid (AMPA). It is a very powerful agonist at a subclass of central glutamic acid receptors (much as quisqualic acid), AMPA also binds effectively to kainic acid receptors and has shown some degree of selectivity for quisqualic acid receptors. Cambridge Research Biochemicals. Circle 539.

Digital Scales

Series 6600 and 6900 stainless steel digital bench scales are available for weighing materials in amounts from 2 to 100 pounds. Metric models are also available. Top-of-the-line models include automatic and keypad entered tare, printer interface and scale conversion capability. Features include a auto-zero circuitry; self-diagnostics; and time, data and motion detection. Detecto Scale. Circle 564.

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

Laboratory Freezer

The mechanically refrigerated Bio-Cool II freezer controls cooling rates for tissue freezing without large liquid nitrogen cylinders. Bio-Cool II uses a few liters of methanol and a small Dewar of liquid nitrogen for tissue storage if necessary. The unit's center handle makes it easy to move from site to site. The



liquid-tight chamber enables the unit to be transferred without removing the methanol. A magnetic stirrer ensures isothermal conditions in the chamber. There is an alarm switch on the programmer and an optional battery is available to back up the controller. Bio-Cool II is useful for applications that require temperatures down to -40°C . FTS Systems. Circle 562.

Minisupercomputer

The SCS-40 is a 64-bit minisupercomputer that uses the Cray X-MP instruction set. It executes 44 million floating point operations per second. Scalar performance is 18 million instructions per second. The SCS-40 offers compatible FORTRAN compilers and operating system environments to fit the VAX VMS and Cray Timesharing Systems environments. Over 200 popular engineering and scientific software applications packages for supercomputers may be used with the SCS-40. Applications for more expensive supercomputers may be developed with the SCS-40. The system offers one, two, or four million 64-bit words (8, 16, or 32 Mbytes) of addressable memory. Memory is organized in interleaved banks that may be accessed in parallel in each clock period. Multiple memory ports support vector fetches and stores, scalar fetches and stores, input/output, and instruction fetches. Each programmable input-output channel is

controlled by a 32-bit microprocessor which runs a firmware control program. Channels have their own 16 Kbyte, high-speed input-output buffer and support a data transfer rate of 20 Mbytes per second to peripheral devices. Scientific Computer Systems. Circle 559.

Monoclonal Antibodies

ACT-T-SET VLA-1 is a monoclonal antibody that is specific for very late T cell activation. VLA-1 is an antigen expressed on the surface of chronically activated T cells. Maximum expression of VLA-1 occurs 4 to 5 weeks after initial T cell stimulation. VLA-1 may be of value in assessing the status of chronic diseases such as multiple sclerosis and rheumatoid arthritis. When used in conjunction with ACT-T-SET IL-2R, ACT-T-SET VLA-1 may provide information about chronic and acute T cell activation. IL-2R is a murine monoclonal antibody specific for the interleukin-2 receptor which is an early activation antigen expressed on the surface of acutely activated T cells. Both of these monoclonal antibodies are offered in a ready-to-use liquid form as either purified antibody or FITC conjugate. They are packaged in 100-test configurations. T Cell Sciences. Circle 558.

Literature

Product Review covers items for histology and electron microscopy including rotary microtomes, cryostats, sliding microtomes, ultramicrotomes, knife sharpeners, tissue embedding centers, automated tissue processing and embedding. Reichert Scientific Instruments. Circle 544.

Antibody Test Kits features the Medica line for in vitro diagnostic use. It includes test kits, substrates, controls, and other components. Accurate Chemical and Scientific. Circle 546.

Workstation for Laboratory Data Processing is devoted to the SpecStation. Configurations for NMR, infrared, and other spectrometric methods will accommodate from two to five users simultaneously. New Methods Research. Circle 547.

Oligonucleotide Synthesis Service provides research chemicals prepared with phosphoramidite chemistry and purified by anion exchange HPLC. The sequences are guaranteed; they may be provided in milligram amounts and mixed sequences are available. The Midland Certified Reagent. Circle 548.

Stable Isotopes catalogs an extensive line of chemicals for academic and industrial research. Isotec. Circle 566.

(Continued from page 892)

Biology of the Integument. Vol. 2, Vertebrates. J. Berier-Hahn, A. G. Matoltsy, and K. Sylvia Richards, Eds. Springer-Verlag, New York, 1986. xvi, 855 pp., illus. \$130.

Comparative Endocrinology. Developments and Directions. Charles L. Ralph, Ed. Liss, New York, 1986. xii, 190 pp., illus. \$38. Progress in Clinical and Biological Research, vol. 205. From a symposium, Copper Mountain, CO, July 1985.

Comparative Neurobiology. Modes of Communication in the Nervous System. Melvin J. Cohen and Felix Strumwasser, Eds. Wiley-Interscience, New York, 1985. xvi, 397 pp., illus. Wiley Series in Neurobiology. From a meeting, Woods Hole, MA, Sept. 1983.

Comparison of *Ab Initio* Quantum Chemistry with Experiment for Small Molecules. The State of the Art. Rodney J. Bartlett, Ed. Reidel, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). x, 513 pp., illus. \$79. From a symposium, Philadelphia, Aug. 1984.

Computer-Aided Design and VLSI Device Development. Kit Man Cham *et al.* Kluwer Academic, Hingham, MA, 1986. xiv, 315 pp., illus. \$42.50. Kluwer International Series in Engineering and Computer Science.

Computer-Aided Design in Magnetics. D. A. Lowther and P. P. Silvester. Springer-Verlag, New York, 1986. viii, 324 pp., illus. \$45.

Dioxins in the Environment. Michael A. Kamrin and Paul W. Rodgers, Eds. Hemisphere, Washington, DC, 1985. viii, 328 pp. \$49.95. From a symposium, East Lansing, MI, Dec. 1983.

Discrete Choice Analysis. Theory and Application to Travel Demand. Moshe Ben-Akiva and Steven R. Lerman. MIT Press, Cambridge, MA, 1986. xx, 390 pp., illus. \$32.50. MIT Press Series in Transportation Studies, vol. 9.

Drug, Set, and Setting. The Basis for Controlled Intoxicant Use. Norman E. Zinberg. Yale University Press, New Haven, CT, 1986. xvi, 277 pp. Paper, \$10.95.

Electronic Spatial Sensing for the Blind. Contributions from Perception, Rehabilitation, and Computer Vision. David H. Warren and Edward R. Strelow, Eds. Nijhoff, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). xvi, 521 pp., illus. \$84.50. NATO Advanced Science Institutes Series E, no. 99. From a workshop, Lake Arrowhead, CA, Sept. 1984.

Elementary Order. Mendeleev's Periodic System. I. V. Petryanov and D. N. Trifonov. Mir, Moscow, 1984 (U.S. distributor, Imported Publications, Chicago). 156 pp., illus. Paper, \$3.95. Translated from the Russian edition (Moscow, 1976) by Nicholas Weinstein.

Environmental Chemistry. Peter O'Neill. Allen and Unwin, Winchester, MA, 1985. xii, 232 pp., illus. \$25; paper, \$13.95.

Environments and Extinctions. Man in Late Glacial North America. Jim I. Mead and David J. Meltzer, Eds. Center for the Study of Early Man, Orono, ME, 1985. xii, 209 pp., illus. Paper, \$22. Peopling of the Americas.

Essays in Time Series and Allied Processes. Papers in Honour of E. J. Hannan. J. Gani and M. B. Priestley, Eds. Applied Probability, Department of Probability and Statistics, University of Sheffield, Sheffield, U.K., 1986. viii, 438 pp. \$35. *Journal of Applied Probability* special volume 23A.

Functions of the Brain. Clive Warwick Coen, Ed. Clarendon (Oxford University Press), New York, 1985. xiv, 209 pp., illus. \$24.95.

Galaxies, Axisymmetric Systems and Relativity. Essays Presented to W. B. Bonnor on His 65th Birthday. M. A. H. MacCallum, Ed. Cambridge University Press, New York, 1985. xx, 300 pp., illus. \$49.50.

Gamete Surfaces and Their Interactions. James K. Kochler, Ed. Liss, New York, 1985. xii pp. + pp. 203-378, illus. \$36. Also published as *The American Journal of Anatomy*, vol. 174, no. 3, 1985.

Gap Junctions. Michael V. L. Bennett and David C. Spray, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 1985. xvi, 409 pp., illus. \$70. From a conference, Cold Spring Harbor, NY, Oct. 1984.

Genetic Perspectives in Biology and Medicine. Edward D. Garber, Ed. University of Chicago Press, Chicago, 1985. viii, 410 pp. \$30; paper, \$12. Twenty-eight articles reprinted from *Perspectives in Biology and Medicine*.

Genetic Toxicology of the Diet. Ib Knudsen, Ed. Liss, New York, 1986. xiv, 351 pp., illus. \$56. Progress in Clinical and Biological Research, vol. 206. From a symposium, Copenhagen, June 1985.

General Parasitology. Thomas C. Cheng. 2nd ed. Academic Press, Orlando, FL, 1986. xx, 827 pp., illus. \$51.

Humor and Aging. Lucille Nahemow, Kathleen A. McCluskey-Fawcett, and Paul E. McGhee, Eds. Academic Press, Orlando, FL, 1986. xx, 294 pp., illus. \$55; paper, \$29.95.

Hypothalamic Control of Pituitary Functions. The Growth Hormone Releasing Factor. Roger Guillemin. Liverpool University Press, Liverpool, 1986. xii, 73 pp., illus. \$19.95. Sherrington Lectures, vol. 18.

Ice Shelves of Antarctica. N. I. Barkov. Balkema, Accord, MA, 1985. viii, 262 pp., illus. \$28.50. Russian Translation Series, vol. 20.

Images of Geometric Solids. N. M. Beskin. Mir, Moscow, 1985 (U.S. distributor, Imported Publications, Chicago, IL). 79 pp., illus. Paper, \$2.95. Translated from the Russian edition (Moscow, 1971) by Valery Barvashov.

Immunoregulation and Autoimmunity. J. M. Cruse and R. E. Lewis, Jr., Eds. Karger, Basel, 1986. vi, 340 pp., illus., + plates. \$79.25. Concepts in Immunopathology, vol. 3.

An Introduction to Ethology. P. J. B. Slater. Cambridge University Press, New York, 1985. viii, 195 pp., illus. \$39.50; paper, \$12.95.

Kapitza. Life and Discoveries. F. B. Kedrov. John Crowfoot, Ed. Mir, Moscow, 1985 (U.S. distributor, Imported Publications, Chicago). 199 pp., illus. \$6.95. Outstanding Soviet Scientists. Translated with revisions from the Russian edition (1979) by Mark Fradkin.

Laboratory Manual of Neutrophil Function. Julia A. Metcalf *et al.* Raven, New York, 1985. xiv, 191 pp., illus. Spiral bound, \$20.

Mechanism of Menstrual Bleeding. David T. Baird and Eileen A. Michie, Eds. Raven, New York, 1985. x, 266 pp., illus. \$39.50. Sero Symposia Publications, vol. 25. From a symposium, Edinburgh, Sept. 1983.

Mechanisms of Stimulus-Response Coupling in Platelets. J. Westwick *et al.*, Eds. Plenum, New York, 1985. xii, 444 pp., illus. \$65. Advances in Experimental Medicine and Biology, vol. 192. From a symposium, London, Sept. 1984.

Nitrogen Fixation Research Progress. H. J. Evans *et al.*, Eds. Nijhoff, Dordrecht, 1985 (U.S. distributor, Kluwer, Hingham, MA). xiv, 731 pp. \$112.50. Current Plant Science and Biotechnology in Agriculture, vol. 1. From a symposium, Corvallis, OR, Aug. 1985.

North Atlantic Nudibranchs (Mollusca) Seen by Henning Lemche. Hanne Just and Malcolm Edmunds. Ophelia Publications, Helsingør, Denmark, 1985. vi, 170 pp., illus. D Kr 50. *Ophelia*, Supplementum 2.

Nuclear Statistical Spectroscopy. S. S. M. Wong. Oxford University Press, New York, 1986. xii, 241 pp., illus. \$29.95. Oxford Studies in Nuclear Physics.

Number Theory in Science and Communication. With Applications in Cryptography, Physics, Digital Information, Computing, and Self-Similarity. M. R. Schroeder. 2nd ed. Springer-Verlag, New York, 1986. xx, 374 pp., illus. Paper, \$24.50. Springer Series in Information Sciences, vol. 7.

Oxygen Transport to Tissue VII. F. Kreuzer *et al.*, Eds. Plenum, New York, 1985. xx, 974 pp., illus. \$135. Advances in Experimental Medicine and Biology, vol. 191. From a symposium, Nijmegen, The Netherlands, Aug. 1984.

Painted Architecture and Polychrome Monumental Sculpture in Mesoamerica. Elizabeth Hill Boone, Ed. Dumbarton Oaks Research Library and Collection, Washington, DC, 1985. x, 186 pp., illus., + plates. \$20. From a symposium, Washington, DC, Oct. 1981.

Roman Circuses. Arenas for Chariot Racing. John H. Humphrey. University of California Press, Berkeley, 1986. xiv, 703 pp., illus. \$60.

The Schooling of China. Tradition and Modernity in Chinese Education. John Cleverley. Allen and Unwin, Winchester, MA, 1985. viii, 319 pp., illus. \$27.95; paper, \$13.95.

Science and the Revenge of Nature. Marcuse and Habermas. C. Fred Alford. University Presses of Florida, Gainesville, 1985. x, 226 pp. \$24.50.

Science Confronts the Paranormal. Kendrick Frazier, Ed. Prometheus, Buffalo, NY, 1986. xiv, 367 pp., illus. Paper, \$15.95.

Scientific Foundations of Space Manufacturing. V. S. Avduyevsky *et al.* Mir, Moscow, 1985 (U.S. distributor, Imported Publications, Chicago). 173 pp., illus. Paper, \$5.95. Translated from the Russian edition (Moscow, 1984) by Boris V. Kuznetsov. Advances in Science and Technology in the USSR: Technology Series.

Scientists and Journalists. Reporting Science as News. Sharon M. Friedman, Sharon Dunwoody, and Carol L. Rogers, Eds. Free Press (Macmillan), New York, 1986. xviii, 333 pp., illus. \$24.95. AAAS Issues in Science and Technology Series.

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ANTHROPOLOGY Physical/Biological—The UNIVERSITY OF DELAWARE announces tenure-track position for physical/biological anthropologist at rank of assistant professor beginning February 1987. A Ph.D. is required and preference will be given to applicants with 1 or more years of (post Ph.D.) research and/or teaching and experience in skeletal analysis of archaeological materials. Position requires excellence in teaching courses in introductory biological anthropology, fossil hominids, primatology, and skeletal analysis. Send curriculum vitae and three reference letters by 1 August 1986 to: Jay Custar, Search Committee, Department of Anthropology, UNIVERSITY OF DELAWARE, Newark, DE 19716. The UNIVERSITY OF DELAWARE is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT DIRECTOR/ RESEARCH SCIENTIST

Immediate opening for a field scientist at The Academy of Natural Sciences' Benedict Estuarine Research Laboratory. Successful applicant will spend approximately 1/2 time on laboratory administration and 1/2 time in research programs. Experience in office and financial administration, management of research projects desirable. Master's degree in appropriate scientific discipline required. Salary commensurate with qualifications. Send résumé, letter of interest and qualifications, plus the names, addresses, and telephone numbers of at least three references immediately to:

Director
Benedict Estuarine Research Laboratory
Benedict, Maryland 20612
Equal Opportunity Employer

DEPARTMENT OF MICROBIOLOGY CORNELL UNIVERSITY MEDICAL COLLEGE ASSISTANT PROFESSOR

The Department of Microbiology, Cornell University Medical College, has a 12-month, tenure-track position available at the assistant professor level. Applicants (with either Ph.D. and/or M.D. degrees) should have postdoctoral experience. An interest and research experience in investigating molecular mechanisms of microbial pathogenesis are desired. Excellent start-up funds and space available. Applicants should send curriculum vitae, names and telephone numbers of references, and a brief description of research objectives to: Dr. Kenneth I. Berns, Chairman, Department of Microbiology, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.

Equal Opportunity/Affirmative Action Employer

ASSISTANT RESEARCH ONCOLOGIST. Non-tenure-track research position for person with postdoctoral experience with human NK cells and BRM's. Write to: Dr. Sidney Golub, University of California, Los Angeles (UCLA), Department of Surgery/Oncology, 54-140 CHS, Los Angeles, CA 90024. UCLA is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR. The Environmental Health Center at the University of Kansas Medical Center invites applications for a tenure-track position in the center. The individual selected will be expected to develop a strong research program, including collaboration with others in the center. This person will have an academic appointment in pharmacology, toxicology, and therapeutics; preventive medicine; biochemistry; pathology; physiology; microbiology or anatomy, dependent upon the interests of the individual and agreement with the selected department. Applicants should submit curriculum vitae and names of three references. Applications are desired before 1 June, but will be accepted until the position is filled. Send applications to: Curtis D. Klaassen, Ph.D., Department of Pharmacology, Toxicology and Therapeutics, University of Kansas Medical Center (KUMC), Kansas City, Kansas 66103.

KUMC is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR OF BIOCHEMISTRY

Twelve-month, tenure-track position. To teach freshman medical biochemistry at Indiana University School of Medicine. Applicant must possess an earned doctoral degree in biochemistry and at least 2 years of postdoctoral experience. Applicants are expected to develop independent/collaborative research and graduate education programs. The applicant must share teaching and laboratory responsibilities of the Biochemistry Program. A background in protein chemistry/endocrinology and some teaching experience are useful, but not essential. Submit curriculum vitae and three letters of recommendation to: Dr. Walter Balcavage, Biochemistry Section Head, Terre Haute Center for Medical Education, Indiana University School of Medicine, 135 Holmstedt Hall, Terre Haute, IN 47809. Indiana University is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR in the fields of MICROBIOLOGY and GENETICS

The Department of Microbiology and the Institute of Cancer Research of the College of Physicians and Surgeons of Columbia University are recruiting several positions at the level of assistant professor in the fields of microbiology and genetics, with special emphasis on the area of gene regulation and recombination. Applicants must have the Ph.D. and/or M.D. degree, and 2 to 3 years of postdoctoral training. Assistant professors will be expected to teach courses for Ph.D. and M.D. candidates and to direct the research of graduate students, as well as to pursue a program of excellent research. Salary will be commensurate with qualifications. Send curriculum vitae to:

Dr. Maxwell Gottesman
Columbia University
701 West 168 Street
New York, NY 10032

Columbia University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR IN NUTRITION: Beginning date: September 1986. Qualifications: Ph.D. in human nutrition or closely related area; teaching and research experience. Closing date: 31 May or until filled. Letter of application, curriculum vitae, transcripts, and three letters of recommendation to: Dr. Guendoline Brown, Food and Nutrition Department, North Dakota State University, Fargo, North Dakota 58105. An Equal Opportunity University.

ASSOCIATE DEAN OF RESEARCH AND GRADUATE STUDIES: The College of Engineering at Michigan State University invites applications and nominations for this senior faculty position to provide leadership for an expanding research and graduate studies program. Candidates must have an earned doctorate and a distinguished record of scholarship and research to qualify for a tenured professorial position in one of the departments in the college. Résumés will be accepted until the position is filled. The assessment of credentials will begin 1 July and the preferred starting date is 1 September 1986. Apply to: Dr. William Taylor, Chairperson, Engineering Associate Dean Search Committee, C101 Wilson Hall, Michigan State University, East Lansing, MI 48824-1208. Michigan State University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

The Division of Surgical Oncology at the University of California, Los Angeles (UCLA) Medical School seeks an **ASSISTANT-RESEARCH ONCOLOGIST** to work with Drs. Morton and Cochran on studies of the early stages of metastasis in human cutaneous melanoma. The successful candidate will have a M.D. degree or the equivalent. Knowledge of cancer medicine and surgery is essential. Experience in the preparation and staining of human tissues by conventional staining techniques and immunohistologic techniques are also required. The appointee will be required to teach these techniques and lecture to medical students. The candidate must be able to interpret the histology of a wide range of human tissues, including lymphoid tissues and especially lymph nodes. Knowledge of quantitative morphometric techniques is also required. Evidence of an ability to perform independent research is essential. The starting salary will be \$32,800. Apply with a full curriculum vitae and references to: LaVerne Wenzel, UCLA Department of Surgery, Room 54-140 CHS, Los Angeles, CA 90024. Affirmative Action/Equal Opportunity Employer.

Applications are currently being accepted for a position at the level of **ASSOCIATE PROFESSOR** or **PROFESSOR** in the Department of Experimental Therapeutics and Grace Cancer Drug Center at Roswell Park Memorial Institute. Candidates will be expected to establish and lead a research program focused on the identification of new target sites for chemotherapeutic intervention based on recent developments in the molecular biology of tumor cells. Research and demonstrated leadership experience in biochemical pharmacology and/or molecular biology with a strong interest in cancer therapy is required. Inquiries should be addressed to: Dr. E. Mihich, Roswell Park Memorial Institute, Buffalo, NY 14263. Equal Opportunity Employer.

ASSOCIATE RESEARCH ENGINEER, Electronics Research Laboratory, University of California, Berkeley. Temporary, full-time position for 1 year commencing August 1986, with possibility of extension contingent upon funding. Salary \$51,400 to \$55,500 per annum, dependent on qualifications. Assist in computer architecture research with professor and graduate students. Develop architectures for high performance Prolog machines and implement the architectures wiring CMOS-VLSI technology. Ph.D. degree or equivalent in computer science or related field required, and research experience in computer architecture, VLSI design, testing of digital systems, use and design of silicon compilers for special purpose architectures. Applicants must also have experience with analysis and design of high performance computer systems. Send résumé to: Professor A. Despain, Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, CA 94720, by 30 June 1986. The University of California is an Equal Opportunity/Affirmative Action Employer.

BIOLOGICAL OCEANOGRAPHER: Department of Oceanography seeks zooplankton ecologist, preferably with specialization in microzooplankton. Appointment will be made at assistant professor level (9 months state funding, tenure-track) and may be taken up between August and December 1986. Applicants send curriculum vitae, names, and addresses of three referees to: Dr. Richard Iverson, Department of Oceanography, Florida State University, Tallahassee, FL 32306, before 1 June 1986.

CELL BIOLOGIST-IMMUNOLOGIST. Department of Microbiology, Georgetown University School of Medicine.

Seeking Ph.D. Scientist with research experience in human cellular immunology to supervise a viral biology laboratory involved with studies on HTLV-III/LAV.

Collaborations with scientists at the National Institute of Allergy and Infectious Diseases will be encouraged. The position carries a nontenured-track assistant professor appointment in the Department of Microbiology.

Send curriculum vitae and names of three references to:

Dr. Dennis Wong
Division of Immunologic Oncology
Lombardi Cancer Center
Georgetown University
3800 Reservoir Road, NW
Washington, DC 20007

CHIEF, ILLINOIS NATURAL HISTORY SURVEY

The Illinois Natural History Survey, a Division of the Illinois Department of Energy and Natural Resources, is seeking candidates for the position of Chief, available 1 October 1986. The Survey, headquartered on the campus of the University of Illinois at Urbana-Champaign, was established in 1858 and is the largest and oldest organization of its kind in the world.

Survey scientists investigate the life histories of organisms and study the biological processes of ecological systems to determine the most effective means of protecting and intelligently using natural resources for maximum benefit. The Survey's internationally recognized programs of basic and applied research are conducted within five sections: Aquatic Biology, Botany and Plant Pathology, Economic Entomology, Faunistic Surveys and Insect Identification, and Wildlife Research.

The Chief of the Illinois Natural History Survey reports to the Board of Natural Resources and Conservation, directs a staff of 230 persons, administers an annual budget in excess of \$6,000,000, and is responsible for the scientific leadership and administration of the organization. The Chief prepares and defends the budget, interacts with representatives of state and federal agencies and the general public, and aids Survey scientists in obtaining necessary funding.

Applicants must possess an earned doctorate in the biological sciences, have established a national and international reputation in a discipline of biology represented in the programs of the Illinois Natural History Survey, and have administrative experience and proven capabilities in leadership and guidance of others engaged in research. They must be articulate and persuasive in both oral and written communication, willing to delegate authority, and able to listen and counsel effectively. Applicants must be familiar with procedures for obtaining grants and contracts from federal, state, regional, and private sources. Minimum salary is \$65,000.

To ensure consideration for the position of Chief, send a statement of interest, a resume, and the names, addresses, and phone numbers of at least three references by 1 July 1986 to: **Dr. Lawrence M. Page, Search Committee Chairman, Illinois Natural History Survey, 607 East Peabody Drive, Champaign, IL 61820. Phone (217) 333-6847.** *The Illinois Natural History Survey is an Equal Opportunity/Affirmative Action Employer.*

DIRECTOR of

PENNINGTON BIOMEDICAL RESEARCH CENTER

The Louisiana State University Medical Center is seeking a highly qualified candidate to serve as Director of the Pennington Biomedical Research Center. The Director will have the additional title of Vice Chancellor of the L. S. U. Medical Center. The Center, which will be completed in May 1986, will be located on a 237 acre site in Baton Rouge. The Center is composed of five buildings with a total of 233,000 square feet, providing facilities for biomedical research with an emphasis on nutrition and preventive medicine.

The Director must possess a Ph.D. and/or M.D. degree with experience in biomedical research. The candidate should have a demonstrated record of superior performance in research. This must include an outstanding publication record and a history of extensive grant support in a clinical or basic science area. The individual also should have a record of superior teaching ability and possess the qualifications for appointment as a full professor in a related department.

The Director will be responsible for providing leadership and plans for the development and direction of the Pennington Biomedical Research Center. He/she will oversee the employment, promotion, and retention of the Center's professional and support staff. The Director will carry responsibility for the acquisition of governmental and private grants and contracts to support the clinical and basic science operations of the Center. He/she will facilitate and plan joint research programs with the other campuses of the Louisiana State University System.

Applications should include a letter expressing operating philosophy for the development of a preeminent national research laboratory. The application also should include a curriculum vita. References will be requested.

Please send applications or nominations to:

**Dr. H. Douglas Braymer, Secretary
Search Committee for Director of Pennington
Biomedical Research Center
Louisiana State University System
P.O. Box 16070
Baton Rouge, LA 70893
Telephone: (504) 388-6118**

The Louisiana State University System is an affirmative action, equal opportunity employer.

MICROBIAL PHYSIOLOGIST

BioTechnica International, Inc., a company specializing in the development of next-generation technologies in the areas of microbial production systems, biochemical engineering, and agricultural biotechnology, has an opening at its Cambridge, Massachusetts facility for a highly motivated Research Scientist.

- BTI is seeking a Microbial Physiologist with three to ten years of experience in the fermentation development of *Bacillus* and *Streptomyces*. A Ph.D. degree is required.

BTI offers a highly competitive salary, excellent employee benefits, and opportunities for professional growth in a stimulating and productive environment. Please send a letter of application referring to position number RS 13, with a resume and the names of three references by June 12, 1986, to:



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

NATIONAL INSTITUTES OF HEALTH, FELLOWSHIP IN BRAIN LIPID METABOLISM.

The Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, invites applications for a Staff Fellowship position to study brain lipid metabolism in relation to development and aging. Research opportunities include the 1) examination of incorporation of precursors of brain lipids in animals in vivo, using quantitative pharmacokinetic and autoradiographic techniques, 2) applying methods for subcellular and chemical fractionation of brain lipids, 3) examining intermediary brain lipid metabolism, 4) examining lipid composition of the human brain in relation to aging and Alzheimer's disease. The position is that of a Staff Fellow, Senior Staff Fellow or Medical Staff Fellow, with salary commensurate with qualifications. Appointments vary in duration from 2 to 7 years and are tenure-track. The position is located in Bethesda, Maryland, and is available October 1, 1986.

Applications are invited from qualified individuals having a Ph.D., M.D., or combined degrees, and pertinent research experience. NIH is an equal opportunity employer, and applications from women and minorities are invited. Interested candidates should submit their Curriculum Vitae to:

**Dr. Stanley I. Rapoport, M.D., Chief
Laboratory of Neurosciences
National Institute on Aging
Building 10, Room 6C103
National Institutes of Health
Bethesda, Maryland 20892.**

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

BIOCHEMICAL PHARMACOLOGIST

The Department of Biochemical Pharmacology of the State University of New York at Buffalo invites applications for a tenure-track position available fall 1986 at the level of an assistant professor. Candidates should have a Ph.D. in pharmacology or related areas and a minimum postdoctoral experience of 1 to 2 years. Candidates whose research experience reflects a molecular approach to cardiovascular or CNS pharmacology are preferred, but candidates with other research interests will be considered. Successful candidates will be expected to develop an independently funded research program and participate in the teaching of graduate and undergraduate courses.

Applications, including a letter of intent, curriculum vitae, a brief statement of research interests, and the names of three references should be sent to: **Vijay C. Swamy, Department of Biochemical Pharmacology, School of Pharmacy, Faculty of Health Sciences, 313 Hochstetter Hall, State University of New York at Buffalo, Buffalo, New York 14260.**

An Affirmative Action/Equal Opportunity Employer.



THE UNIVERSITY OF MANITOBA FACULTY OF MEDICINE

CARDIOVASCULAR MOLECULAR BIOLOGISTS AND ELECTROPHYSIOLOGISTS. The Department of Physiology, University of Manitoba, invites applications for two positions from young investigators in the field of experimental cardiology 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, as well as collaborate with other members of the department. Applicants with backgrounds in molecular biology and electrophysiology 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 1 June 1986. *The 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.*

CHAIRPERSON BIOLOGICAL SCIENCES

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

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

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE ST. LOUIS, MISSOURI DEPARTMENT OF BIOLOGICAL CHEMISTRY CHAIRPERSON

Applications and nominations are invited for the position of chairperson of the Department of Biological Chemistry. Candidates should be distinguished as scholars and scientists with demonstrated commitment to medical and graduate education.

Curriculum vitae and bibliography may be submitted to:

**M. K. King, M.D., Dean
Washington University School of Medicine
660 South Euclid Avenue
St. Louis, Missouri 63110**

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

UNIVERSITY OF GUELPH CHAIRMAN DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

Applications are invited for the position of chairman, Department of Chemistry and Biochemistry, University of Guelph. The appointment, effective 1 January 1987, is normally for a 5-year term and is renewable for one term. The successful candidate will have an outstanding record of research in chemistry or biochemistry and will have demonstrated a capacity for leadership.

The Department of Chemistry and Biochemistry is strongly committed to excellence in all of its activities—undergraduate education, graduate education, and research. The department presently has 32 full-time faculty and the opportunity for several new appointments. The graduate programs are offered in partnership with the University of Waterloo, in the Guelph/Waterloo Centre for Graduate Work in Chemistry, (GWC)². Degrees are offered at the M.Sc. and Ph.D. levels in both chemistry and biochemistry; the present graduate enrollment is 120.

Nominations, or applications accompanied by curriculum vitae and the names of three referees, should be sent by 31 July 1986 to:

**Dr. J. R. Macdonald, Dean
College of Physical Science
University of Guelph
Guelph, Ontario, Canada, N1G2W1**

In accordance with Canadian immigration requirements priority will be given to Canadian citizens and permanent residents of Canada. Position subject to final budgetary approval.

CELLULAR NEUROBIOLOGIST. Faculty position at assistant professor level available for Ph.D. interested in the role of local cortical circuits in mammalian plasticity and experimental epilepsy. Demonstrated research productivity and potential for independent grant support essential. Experience in pharmacology, histology, and analysis of cortical synaptic interactions desirable. Applications and inquiries to: **Timothy A. Pedley, M.D., Committee on Appointments and Promotions, Department of Neurology, College of Physicians and Surgeons, 710 West 168 Street, New York, NY 10032.** *Columbia University takes Affirmative Action to ensure Equal Opportunity.*

CYTOGENETICIST

Director of clinical and research laboratory in newly developed University of California, Los Angeles (UCLA)-affiliated Genetics Center. Send curriculum vitae and three reference letters to: **DR. DAVID L. RIMOIN, M.D., Ph.D., Director, Department of Pediatrics and the Medical Genetics-Birth Defects Center, Cedars-Sinai Medical Center, 8700 Beverly Boulevard, Los Angeles, CA 90048.**

IMMUNOGENETICIST/HLA TYPER

Clinical and research laboratory director in newly developed University of California, Los Angeles (UCLA)-affiliated Genetics Center. Send curriculum vitae to: **DR. DAVID RIMOIN, M.D., Ph.D., Director, Department of Pediatrics and Medical Genetics Birth Defects Center, Cedars-Sinai Medical Center, 8700 Beverly Boulevard, Los Angeles, CA 90048.**

The Department of Biology and Health Sciences at the University of Detroit seeks applicants for a 9-month, tenure-track position in **MAMMALIAN PHYSIOLOGY**, appointment to become effective 15 August 1986. Responsibilities include undergraduate and graduate teaching, as well as the development of an active research program. A Ph.D. is required. Rank and salary are dependent upon qualifications.

Interested candidates should contact:

**Pauline J. Wood, Ph.D.
Chairman, Biology and Health Sciences
University of Detroit
4001 West McNichols
Detroit, Michigan 48221
Telephone: 313-927-1181**

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

Closing date 30 May 1986.

POSITIONS OPEN

CEREBROVASCULAR

Applications are invited for a position in neuroscience at the University of Manitoba, Faculty of Medicine. Preference will be given to individuals with experience and a continuing interest in cerebral blood flow and metabolism, with some expertise in nuclear magnetic resonance. The successful candidate will be expected to develop an independent laboratory in an environment with ample opportunity to collaborate with other researchers in clinical, as well as basic science, departments. Candidates should have a Ph.D. or equivalent, have two or more years of postdoctoral training, and be eligible to compete for local and national scholarship awards. Send curriculum vitae, outline of future research plans, and arrange for three letters of reference to be forwarded to: **Dr. H. G. Friesen, Professor and Head, Department of Physiology, University of Manitoba, Winnipeg, Manitoba, Canada R3E 0W3.** Deadline for receipt of applications is 1 July 1986. *In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.*

The Department of Psychiatry at the University of Michigan has an opening for the position of CHIEF PSYCHOLOGIST. This appointment will be made at the full or associate professor level with tenure in the medical school and carries a joint appointment in the Department of Psychology. Salary is competitive and commensurate with professional accomplishments. A nationally known individual who can provide leadership for faculty members, predoctoral clinical psychology interns, and postdoctoral trainees in the Department of Psychiatry is sought. Applicants should have proven records in research, the ability to obtain new external funding, and knowledgeability about clinical interventions. A wide variety of excellent opportunities for research and clinical pursuits is offered in the Department of Psychiatry. Collaborative research with other medical school departments, the Mental Health Research Institute, and the Department of Psychology is encouraged. Applicants must have a doctoral degree from an APA-accredited clinical psychology program, have completed an approved internship, and be licensed or licensable in the state of Michigan. A letter of interest, curriculum vitae, and three letters of recommendation should be sent to: **Neil Kalter, Ph.D., Chairman of the Search Committee, Department of Psychiatry, P3082 Children's Psychiatric Hospital, 1500 East Medical Center Drive, Ann Arbor, Michigan 48109.** *The University of Michigan is an Affirmative Action Employer.*

ELECTRON MICROSCOPIST MOLECULAR BIOLOGIST UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE Department of Pharmacology and Experimental Therapeutics

The Department of Pharmacology and Experimental Therapeutics announces the opening of a tenure-track position at the level of assistant/associate professor emphasizing analytical electron microscopy. Three electron microscopes including a JEOL 1200 EX TEMSCAN electron probe system equipped with Tracor Northern 5500 x-ray detection and analysis capabilities, along with cryopreparation and transfer equipment are available within the department. Preference will be given to candidates capable of contributing to teaching and taking direct technical and administrative responsibility for operation of the analytic electron microscope facility in conjunction with a program of high quality independent research on major biological problems exploiting this "state of the art" facility. The successful candidate will be expected to develop and maintain an independent research program, as well as collaboration with other faculty. Effectivity salary is competitive and negotiable based on experience and qualifications. Applications will be accepted until June 1986. Send résumé and three letters of reference to:

**Dr. Edson X. Albuquerque
Department of Pharmacology
and Experimental Therapeutics
University of Maryland School of Medicine
660 West Redwood Street
Baltimore, MD 21201**

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

LIPID BIOCHEMISTRY/ MOLECULAR BIOLOGY

Expansion within the Lipids Research Unit of Upjohn Pharmaceutical Research and Development has created openings for associate scientists to conduct biochemical and chemical research relevant to the pharmacological modulation of cellular lipid metabolism. The research goals of this program include: the characterization of processes involved in the formation and mechanism of action of biologically active lipids typified by eicosanoids, phosphoinositides or related substances; the characterization of the cellular and molecular roles of lipids in pathological disorders; and the characterization of synthetic or naturally occurring substances that modify the formation and effects of biologically active lipids. Qualified candidates will have B.S. or M.S. degrees in biochemistry, chemistry or equivalent science and demonstrated research experience to contribute to this program.

BIOCHEMISTS

Positions are available for biochemists to investigate the regulation of lipid metabolism using biochemical and molecular biological approaches. Experience in protein purification/characterization, enzymology, and basic molecular cloning techniques are highly desirable.

BIOCHEMISTS/ANALYTICAL BIOCHEMISTS

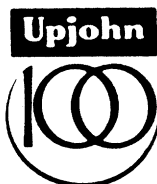
Positions are available for biochemists, biochemical pharmacologists, or analytical biochemists to study the biosynthesis and metabolism of eicosanoids and phosphoinositides. Experience in qualitative and quantitative determination by immunochemical, bioassay, or instrumental methods including HPLC, GC/MS, and RIA are needed. Knowledge of *in vitro* pharmacology is desirable.

CHEMIST

A position is open for a chemist to synthesize inhibitors of enzymes in the arachidonic acid cascade and evaluate their mechanism of action.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a rich mix of cultural, educational and recreational pursuits including numerous lakes and a four-season climate. Upjohn offers the opportunity for career growth, a competitive salary, commensurate with experience, a comprehensive benefits program and relocation assistance.

For confidential consideration, please call from outside of Michigan toll free 1/800/253-8600, ext. 3-6767 (inside Michigan call collect 616/323-6767), to request an employment application be sent to you immediately. Please refer to ad number 1757-A when calling.



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FACULTY POSITION IN *IN VIVO* NMR UNIVERSITY OF CALIFORNIA, DAVIS

The University of California at Davis invites applications for a tenured appointment at the Associate/Full Professor level. The position is to be filled by an established scientist in the area of *in vivo* NMR/MRI whose research complements existing programs in high-resolution and *in vivo* NMR. The appointee is expected to play a major role in guiding the development and application of *in vivo* instrumentation in the centralized Nuclear Magnetic Resonance facility of the Davis Campus. Departmental affiliation and teaching responsibilities will depend on the area of expertise of the successful applicant. Priority will be given to candidates having a substantial publication record and success in competitive funding. Salary commensurate with experience.

The Davis Nuclear Magnetic Resonance Facility houses the major NMR instrumentation on Campus, which currently consists of a Nicolet/GE multinuclear wide-bore 4.7 T instrument and narrow-bore 8.46 T and 11.75 T systems with ¹H, ²H ¹³C, ³¹P HR probes and a variety of ³¹P surface coils; an Oxford Research Systems 30cm clear bore 1.9 *in vivo* spectrometer will be upgraded to include imaging in 1987. The Facility is staffed by two Ph.D. NMR spectroscopists and two technicians and is responsible for maintenance and instrumental/probe development. A separate building with 3,600 sq. ft. of space is currently being refurbished for housing all Facility instrumentation and staff by Fall, 1986. A Technicare whole body 2.0 T Imager, recently installed in the Department of Radiology of School of Medicine, is also available.

Active areas of NMR research at UCD include probe and coil design, organ and whole-animal physiology, plant, animal and microbial metabolism as well as traditional and two-dimensional high resolution NMR studies of proteins, nucleic acids and natural products. The campus has strong programs in medicine and veterinary medicine, plant sciences, animal sciences, physiology, biochemistry and chemistry. The presence of the School of Medicine, the School of Veterinary Medicine, the Primate Center and the NMR facility on the same campus present exceptional opportunities for interdisciplinary research.

Applicants should submit a statement of research and teaching interests, a curriculum vitae, selected reprints and arrange for three letters of reference to be forwarded. Applications and letters of reference should be addressed to:

NMR Search Committee
c/o R.D. Grey, Dean of Biological Sciences
University of California
Davis, CA 95616

The search committee will commence the review of applications on July 1, 1986, and the position will be filled as soon as a suitable individual is identified. The final closing date for receipt of applications is December 30, 1986.

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

RESEARCH BIOLOGIST

G.D. Searle, a wholly owned subsidiary of Monsanto Company, currently has an opening in its St. Louis R&D facility for an experienced MS level biologist within the Immunology Research Department.

The qualified applicant will design and execute experimental protocols in the area of immunoinflammatory diseases including analysis and interpretation of experimental data. A minimum of 2 years experience in cell culture, hybridoma production, immune complex assays, glycosyl-transferase and glycosidase assays, plaque-forming cell assays, ELISA, cell surface marker analysis, HPLC, HVE, and/or oligo-saccharide biochemistry is strongly preferred.

In return, Searle offers a challenging professional environment, attractive salary, comprehensive benefits, full relocation package and tuition assistance.

To apply, in confidence, please forward your resume and salary requirements to:

Joan Lineberry BB5A #9VI-5
Searle Research & Development
800 N. Lindbergh Blvd.
St. Louis, MO 63167

Equal Opportunity Employer

SEARLE

POSITIONS OPEN

FACULTY AND POSTDOCTORAL POSITION available in the Hematology/Oncology Unit of Louisiana State University (LSU) Medical Center, Shreveport, Louisiana for biochemists and/or cell biologists to work on ongoing projects in erythroid and leukemic cells including trans-membrane iron transport, regulation of endocytosis, hemin uptake, and post-transcriptional control of mRNA levels.

Interested applicants should send curriculum vitae and letters of recommendation to: **Martha Lennard, c/o Dr. Jonathan Glass, Personnel Department, LSU School of Medicine, P.O. Box 33932, Shreveport, LA 71130-3932. Affirmative Action/Equal Opportunity Employer.**

TWO TENURE-TRACK FACULTY POSITIONS available immediately: Developmental geneticist, particularly the molecular genetics of the mouse; and retroviral geneticist, particularly as applied to somatic and embryonic development genes. Please submit a current curriculum vitae and list of references to: **Dr. C. Thomas Caskey, Director, Institute for Molecular Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, Texas 77030.**

TENURE-TRACK FACULTY POSITION IN THE CENTER FOR CANCER RESEARCH AND DEPARTMENT OF BIOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Candidates are sought for a tenure-track position at the level of assistant professor in the field of biochemistry of regulation of cell growth.

Candidates should have significant research accomplishments in the area of biochemistry of proteins involved in the regulation of cell growth. While there is a broad latitude in the research interests of the candidates, we are particularly interested in those engaged in molecular studies of mammalian cell responses to extracellular signals.

The successful applicant will be expected to conduct an active research program in the Center for Cancer Research and to participate in the teaching program of the department.

Applicants should send curriculum vitae, a summary of their proposed research program, and the names of at least three scientists who can provide an evaluation of the candidate's past accomplishments and future potential.

Send applications to:

**Dr. Phillip A. Sharp
Professor and Director
Center for Cancer Research
Room E17-529B
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge, MA 02139**

An Equal Opportunity/Affirmative Action Employer.

THE AUSTRALIAN NATIONAL UNIVERSITY invites applications from suitably qualified women and men for appointment to the position of **FELLOW/SENIOR FELLOW, DEPARTMENT OF PREHISTORY, RESEARCH SCHOOL OF PACIFIC STUDIES**. The department is engaged in full-time research into the archaeology of Australia, New Guinea, and Melanesia in the regional context of Southeast Asia and the South Pacific and with reference to general theoretical and methodological issues in the discipline. It is looking for an established scholar capable of strengthening its established lines of research or of extending them in appropriate ways. Intending applicants should write to the Registrar for further particulars. Closing date: 15 July 1986. Reference: PA.9.4.3. Salary will be in accordance with qualifications and experience within the range: fellow \$31,747 to \$42,532 per annum; senior fellow \$42,588 to \$49,640 per annum; appointment as fellow or senior fellow is for an initial period of 5 years with the possibility, following review, of reappointment to retiring age 65. Grants towards travel, assistance with housing, superannuation. Maternity leave is available. The university reserves the right not to make an appointment or to make an appointment by invitation at any time. Applicants should quote the reference number when submitting applications to: **R. V. Dubs Registrar, GPO Box 4, Canberra, ACT, 2601 Australia. The University is an Equal Opportunity Employer.**

POSITIONS OPEN

FACULTY POSITION, BIOMEDICAL ENGINEERING. The University of Southern California invites applications for a tenure-track faculty position available 1 September 1986. Applicants must have a Ph.D. or M.D. degree with training or research experience in sensory physiology or cardiopulmonary physiology. Duties include both teaching and research, and appointee will be expected to establish his or her own independent research program; rank and salary will be commensurate with qualifications. Send résumé and names of three references to: **Chairman, Department of Biomedical Engineering, University of Southern California, Los Angeles, California 90089-1451. An Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITION ENVIRONMENTAL TOXICOLOGY

The Department of Environmental Health Sciences of the School of Public Health, University of Alabama at Birmingham (UAB) is seeking an **assistant or associate professor in environmental toxicology**. This is a tenure-track or tenured position with responsibilities that include teaching of graduate level toxicology courses and initiation of independent and collaborative research.

A doctorate in toxicology and an interest in carcinogenesis neurotoxicology, or inhalation toxicology, will be shown preference. Salary is negotiable, depending on qualifications.

Curriculum vitae and names of three references should be sent before 9 June 1986 to: **Dr. Robert G. Meeks, Director, Toxicology Program, Department of Environmental Health Sciences, School of Public Health, University of Alabama at Birmingham, University Station, Birmingham, AL 35294. An Equal Opportunity/Affirmative Action Employer.**

TENURE-TRACK POSITIONS IN PRECLINICAL MEDICAL sciences available in the Departments of Anatomy, Human Genetics, Histology and Cell Biology, Human Microbiology, Chemical Pathology, Pathology, Behavioral Sciences, Physiology and Pharmacology, and Embryology and Teratology at Tel Aviv University Sackler School of Medicine. The appointees will be expected to conduct a vigorous research program, and teach preclinical medical students and graduate and post-graduate students in the discipline of the department. Applications with curriculum vitae should be sent to:

**Search Committee Preclinical Departments
Office of the Dean, Sackler School of Medicine
Tel Aviv University
Ramat Aviv Tel Aviv 69978, Israel
Telephone: 03-420658**

Candidates should arrange to have three letters of reference sent to the above address.

MOLECULAR BIOLOGIST IN PHYSIOLOGY

Applications are invited for a position of molecular biologist in physiology at the adjunct assistant professor level. The field of study will be the control of selective gene expression in development and functional adaptation as summarized in the expression "physiological control of gene switches." Experience with genes for myofibrillar or membrane proteins would be preferred, as this is to be a major investigative goal, in a general and cardiovascular context. Please send curriculum vitae and supporting materials to: **Professor Wilfried Mommaerts, Chairman, Department of Physiology, School of Medicine, University of California (UCLA), Los Angeles, CA 90024.**

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

NEUROPHARMACOLOGY FELLOW

The Dartmouth-Hitchcock Medical Center is offering a 2-year minimum fellowship for Ph.D. neuropharmacologist for joint appointment in Section of Neurosurgery and Department of Pharmacology. Laboratory and clinical studies now under way involving drug delivery for Alzheimer's disease, malignant gliomas, seizure disorders, and weight control. Independent projects and long-term position possible. Excellent salary and fringe benefit package.

Please send résumé to: **Robert E. Harbaugh, M.D., Assistant Professor, Section of Neurosurgery, Dartmouth-Hitchcock Medical Center, Hanover, NH 03756; telephone 603-646-5109.**

An Equal Opportunity Employer.

POSITIONS OPEN

CORNELL UNIVERSITY DIVISION OF BIOLOGICAL SCIENCES HISTOLOGIST/CELL BIOLOGIST

The Section of Physiology is seeking a highly qualified assistant professor (tenure-track) to teach an upper level lecture-laboratory course in **histology**, emphasizing the relation between structure and function. The applicant should also provide evidence of potential for developing a strong research program on some aspect of animal cell biology, using modern experimental approaches. Research interest in cellular processes associated with secretion, receptor localization and regulation, membrane synthesis and processing, or morphological aspects of gene expression would complement ongoing research activities in the Division of Biological Sciences, but other areas of research specialization will be considered as well. Qualifications include the Ph.D. and postdoctoral experience. Submit curriculum vitae, list of publications, statement of teaching, and research interests by 6 June 1986, and have three confidential letters of recommendation sent by the above deadline, to: **Dr. Klaus W. Beyenbach, Chair, Search Committee, Section of Physiology, VRT 826, Cornell University, Ithaca, NY 14853. Cornell University is an Affirmative Action/Equal Opportunity Employer.**

MEDICAL TECHNOLOGIST. Department of Obstetrics and Gynecology. To evaluate amniotic fluid, serum and urine samples in order to give physicians the information necessary to determine fetal lung maturity, stages of pregnancy, assess the possibility of cancer, or an ectopic pregnancy and monitor these patients. Candidates must have a minimum of 1 year of prior experience in RIA techniques, computer data analysis, and thin-layer chromatography, including ability to troubleshoot complex equipment. A B.S. or equivalent in biology or medical technology is also required. Full-time position with salary of \$15,848 per year. Interested applicants should submit their résumés to: **Job Service Technical Unit, Connecticut Department of Labor, 200 Folly Brook Boulevard, Wethersfield, Connecticut 06109** and refer to Job Order number 0508548.

NEUROPHYSIOLOGY

Applications are invited for a position in neuroscience 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 postdoctoral training, and be eligible to compete for local and national scholarship awards. Send curriculum vitae, an outline of future research plans, and arrange for three letters of reference to be sent to: **Dr. H. G. Friesen, Professor and Head, Department of Physiology, University of Manitoba, Winnipeg, Manitoba, Canada R3E 0W3. Receipt of applications is 1 June 1986. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.**

Ph.D. TO HEAD PRIVATELY FUNDED RESEARCH PROGRAM

The Division of Pediatric Gastroenterology, North Shore University Hospital/Cornell University Medical College, seeks a Ph.D. with established research credentials to develop and direct a privately funded program of research in pediatric inflammatory bowel disease. Experience in immunology, molecular biology, or microbiology preferred. Send résumé to: **Stanley E. Fisher, M.D., Department of Pediatrics, North Shore University Hospital, 300 Community Drive, Manhasset, NY 11030; or telephone 516-562-4642.**

POSTDOCTORAL FELLOW IN TRANSPLANT IMMUNOLOGY to work in the field of allograft rejection. Will work in close collaboration with the clinical transplant teams, histocompatibility laboratory, and clinical immunologist. In vitro models of rejection and response to immunosuppressive agents will be set up. Laboratory facilities and a trained immunologic technician are available. Submit curriculum vitae and names of three references to: **Rudolf A. F. Krom, M.D., Ph.D., Mayo Clinic, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Institution.**

POSITIONS OPEN

NEUROSCIENTISTS

The Cardiovascular Laboratory, Harvard School of Public Health, is seeking to fill two newly created positions at the postdoctoral level. One individual will study the role of neuroactive peptides in regulating cardiovascular function. Requirements include a Ph.D. in biochemistry, neurobiology, or a related field and experience with analytic techniques including HPLC. The other individual will explore the influence of sleep/wake cycles on coronary flow and cardiac electrical properties. Requirements include a Ph.D. in psychobiology or a related field and experience with sleep staging. These are NIH-funded positions, which will involve interaction with a multidisciplinary group of scientists and clinicians who are investigating the problem of sudden cardiac death. Salaries are competitive, based on background and experience. Those interested in either position should send curriculum vitae and names of three references to: Dr. Richard L. Verrier, Director, Cardiovascular Laboratory, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115. *Harvard University is an Equal Opportunity Employer with an Affirmative Action Program.*

PHARMACOLOGIST

The Division of Pharmacology and Medicinal Chemistry invites applications for a tenure-track faculty position in pharmacology with rank appropriate to experience. Responsibilities include maintenance of an active, extramurally funded research program, direction of graduate students, and participation in graduate and undergraduate instruction. Candidates for the position should hold a Ph.D., in pharmacology or an allied discipline and present evidence of directing an active, funded research program. Salary is competitive and commensurate with qualifications. The position is available 1 September 1986. Applicants should submit a current curriculum vitae, letter describing interests and research program objectives, and names, addresses, and telephone numbers of three references by 15 July 1986 to: Vernon R. Grund, Ph.D., Chairman, Division of Pharmacology and Medicinal Chemistry, College of Pharmacy, University of Cincinnati Medical Center, Cincinnati, Ohio 45267-0004. *The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority groups.*

Ph.D. IN MOLECULAR BIOLOGY DESIRED FOR POSITION IN AN ONCOLOGY RESEARCH LABORATORY

To initiate research program involving: Growth factors, oncogenes, and gene rearrangements in both solid and hematologic malignancies.

Individual with several years of postdoctoral experience, as well as record of independent, original research preferred.

Send curriculum vitae and reference letters to:

Larry Nathanson, M.D.
222 Station Plaza North
Room 300
Mincola, New York 11501

POSTDOCTORAL FELLOW/JUNIOR FACULTY—a career opportunity for an individual with recent Ph.D. in any one of these areas: BIOCHEMISTRY (eicosanoid production and metabolism); PHARMACOLOGY and PATHOLOGY of INFLAMMATION; and MOLECULAR BIOLOGY (cDNA cloning and cell regeneration) in our KRANER INSTITUTE FOR INFLAMMATORY BOWEL DISEASE RESEARCH. Send résumé and three references to: Dr. S. Murthy, M.S. 426, Division of Gastroenterology, Hahnemann University, Broad and Vine, Philadelphia, PA 19102.

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE. Position available immediately to study the detailed mechanisms of the interaction of sequence-specific binding proteins with DNA. Ph.D. and strong background in molecular biology required. Salary negotiable. Send curriculum vitae to: Dr. Kenneth Minton c/o Civilian Personnel, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799. *Equal Opportunity Employer.* For further information, telephone Dr. Minton: 202-295-3750 or 202-295-3476.

PHARMACEUTICAL RESEARCH IN DERMATOTHERAPEUTICS

Unique career growth opportunities with young pharmaceutical company in Colorado. Our client is an established and growing community of inspired professionals who address discovery and development of pharmaceuticals for skin disorders. This is an advanced development stage company committed to exciting new areas of dermatotherapeutics.

Director of Clinical Research: Requires a Ph.D. degree in a biological science or M.D. degree and at least five to ten years industry experience in ethical pharmaceutical clinical research. Experience with products for skin disease preferred.

Director of Pharmaceutics: Requires a Ph.D. degree in pharmaceutics and five to ten years pharmaceutical industry experience in the development of topical dosage forms.

Our client offers a competitive base salary and bonus plus substantial stock options in this publicly held corporation. Career advancement opportunities are outstanding. Only those with an entrepreneurial can-do attitude who will work in a committed team should consider this opportunity.

Please forward your curriculum vitae, income requirements, and a statement regarding your availability and why you should be recruited to: Wellden C. Neill, Executive Vice President.



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THE FIRST WORD IN... DIAGNOSTICS RESEARCH

New product development has been a crucial factor in making Abbott Laboratories the world leader in medical diagnostics. A new venture group is now breaking ground with a new diagnostic instrument system. The direction is being defined...the immunochemical assay developed...and the system achieved. Our opportunity for a Protein Immunochemist will be a principal contributor in this process and in our overall continued success.

PROTEIN IMMUNOCHEMIST

This individual will interface with instrumentation scientists and analytical chemists in bringing this system to market. This multidisciplinary position requires sound theoretical/empirical aptitudes, plus the ability to work in a team environment. You will need a Ph.D. with a minimum of 3-5 years experience in immunochemistry or protein chemistry, including expertise in organic synthesis and protein modification. Experience with fluorescent tracer development, spectroscopy, instrumentation development and the engineering disciplines is desirable.

Abbott Laboratories is headquartered in an attractive suburban setting on the Lake Michigan shoreline just 30 miles north of Chicago. We provide an excellent salary and benefits plan including profit sharing. For confidential consideration, please send your resume with salary history to: **Sue Hart-Wadley/Corporate Placement.** Abbott is an Affirmative Action Employer.

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POSITIONS OPEN

MEMORIAL UNIVERSITY OF NEWFOUNDLAND DEPARTMENT OF BIOCHEMISTRY

Post- and pre-doctoral positions in physicochemical studies on pulmonary surfactant, biological membranes, and related systems are available. Experience with physicochemical studies on surfactant or membranes would be an asset, but not essential.

Send résumé and the names and addresses of three referees to:

Dr. K. M. W. Keough
Department of Biochemistry
Memorial University of Newfoundland
St. John's, Newfoundland
Canada, A1B 3X9

POSTDOCTORAL POSITION available to study the molecular mechanisms of interferon action. Candidate should have a recent Ph.D. in the biological sciences. Experience with mammalian cell culture techniques, recombinant DNA technology, and oncogenes is required. Salary negotiable. Interested persons should send curriculum vitae and three letters of reference to: **Dr. Opendra K. Sharma, Department of Molecular Biology, AMC Cancer Research Center, 1600 Pierce Street, Denver, Colorado 80214. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION—The Dana-Farber Cancer Institute is seeking to fill one research position at the postdoctoral level to study the interaction of new antineoplastic agents and new therapeutic modalities with DNA in tumor and normal tissues. The work involves applying molecular biological techniques to defined sequence DNA and to DNA isolated from murine model systems. Joint appointment will be held in an appropriate department at Harvard Medical School. Send curriculum vitae and names of three references to: **Dr. Beverly Teicher, DANA-FARBER CANCER INSTITUTE, 44 Binney Street, Boston, MA 02115. An Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION. Ph.D./organic chemistry or biochemistry. Determine the structures of the DNA adducts formed upon metabolism of tobacco-specific and cyclic nitrosamines. The significance of these adducts will be assessed by in vivo persistence studies in target and non-target tissues. Possibility for permanent position. Send curriculum vitae and names of three references to: **Dr. Stephen S. Hecht, Chief, Division of Chemical Carcinogenesis, American Health Foundation, 1 Dana Road, Valhalla, NY 10595.**

An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to join a research team involved in the molecular cloning and analysis of a key enzyme involved in post-transcriptional regulation by interferon. A strong background in biochemistry and cell biology is required; recombinant DNA experience is preferred. Send curriculum vitae and names of three references to: **Dr. Robert H. Silverman, Department of Pathology, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814.**

POSTDOCTORAL POSITION

To study the regulation of mammalian DNA replication and expression of DNA polymerases. Involves protein structure analysis using monoclonal antibodies, cloning mammalian genes, immunocytochemistry, and flow cytometry. Contact: **Dr. Robert Bambara, Biochemistry, Box 607, University of Rochester, Rochester, NY 14642.**

POSTDOCTORAL POSITION

Postdoctoral fellowship starting July to December 1986, for 1 year, for research on control of cerebral circulation. Previous experience in cardiovascular physiology desirable. Send curriculum vitae and names of references to: **Dr. R. R. Sonnenschein, Department of Physiology, UCLA School of Medicine, Los Angeles, CA 90024. The University of California is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION to use techniques of modern molecular biology to study the effect of chemically induced DNA conformational changes on mutation and repair of oncogene related sequences. Recent Ph.D. in biochemistry, chemistry, or microbiology with interest in chemical mutagenesis/carcinogenesis or pharmacology/toxicology. Send curriculum vitae, three letters of reference, and transcripts to: **Dr. Michael D. Topal, Lineberger Cancer Research Center, University of North Carolina (UNC) Medical School, Chapel Hill, NC 27514. UNC Cancer Research Center is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately for NIH-funded research on the regulation of vesicular stomatitis virus RNA transcription and replication and the mechanism of action of defective interfering virus particles. Candidates must have prior experience in molecular biology or virology or recombinant DNA technology. Send curriculum vitae and three reference letters to: **Dr. Jacques Perrault, Molecular Biology Institute, San Diego State University, San Diego, CA 92182. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION is available immediately to study the molecular genetics of plasminogen activator and its inhibitor in cultured human endothelial and rat hepatoma cells. Applicants must have training and experience in molecular genetics. Stipend negotiable. Send résumé, statement of research interests, and names of references to: **Dr. Thomas Gelehrter, Department of Human Genetics, Box 0618, University of Michigan Medical School, Ann Arbor, MI 48109-0618.**

POSTDOCTORAL POSITION IN REPRODUCTIVE BIOLOGY is available at the University of Tennessee in the Reproductive Biology/Biotechnology Unit of the College of Veterinary Medicine and Department of Animal Science. Research in area of conceptus protein-uterine/ovarian relationships. Salary: \$20,000. Submit curriculum vitae and three letters of reference to: **Dr. Jim Godkin, Department of Animal Science, University of Tennessee, Knoxville, TN 37901-1071.**

ASSOCIATE DEAN AND DIRECTOR OF RESEARCH

SCHOOL OF AGRICULTURE AND LIFE SCIENCES NORTH CAROLINA STATE UNIVERSITY

North Carolina State University invites nominations and applications for the position of Associate Dean and Director of the North Carolina Agricultural Research Service, School of Agriculture and Life Sciences. The School has 21 departments, 590 faculty and an enrollment of 3,200 undergraduates and 700 graduate students.

The Associate Dean and Director of Research is responsible to the Dean of the School of Agriculture and Life Sciences for leadership in the administration, supervision, coordination and development of the research programs for the School. These responsibilities include working with faculty members, department heads, other administrators and industry clientele to provide a high quality, productive research program. Responsibilities of the office include cooperation with other administrative personnel in formulation of budget proposals; allocation of budgeted funds; and employment, evaluation and promotion of faculty. The individual in this position is to function as a member of an administrative team with the Dean and the Associate Deans of Academic Affairs and Extension.

Candidates should have the Ph.D. and demonstrated ability in research and administration. Applicants must have the desire and capacity to work with people. Candidates must have a sensitive awareness of agricultural needs. They must also possess an understanding of and appreciation for agricultural, biological and social science research.

The position is available September 1, 1986. Closing date for nominations and applications is August 1, 1986 or until the position is filled. Complete applications will include a letter of interest, a current curriculum vitae, names of four references and a brief statement of the candidate's philosophy of research administration. Nominations, inquiries and applications should be addressed to:

Dr. David R. Lineback
Chairman of the Search Committee
Department of Food Science
North Carolina State University
Box 7624
Raleigh, NC 27695-7624

North Carolina State University is an equal opportunity affirmative action employer

RESEARCH SCIENTISTS

An industry leader in advanced biotechnology **Amgen** develops products for a wide variety of applications. Recent development progress has created opportunities for highly qualified **Research Scientists**.

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

- Molecular Biology or enzymology of cofactors
- Multi-enzyme pathways
- cDNA cloning and expression
- Expression in Prokaryotes

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

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

AMGen

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DIRECTOR

Toxicology Laboratory

Warner-Lambert/Parke-Davis, a world leader in the ethical pharmaceutical field with a strong commitment to Research and Development, is seeking an outstanding individual for the position of Director of its Pathology and Experimental Toxicology Institute in Sheridan Park (near Toronto) Canada.

The Institute operates as an integral part of the Warner-Lambert/Parke-Davis Pharmaceutical Research Division Headquartered in Ann Arbor, Michigan and the Director of the Canadian Institute reports to the Vice President, pathology and Experimental Toxicology in Ann Arbor.

The Warner-Lambert Research Institute of Canada is situated in the Sheridan Park Science Community some 25 miles from Central Toronto, and has a staff of 50 scientists involved in toxicology and experimental pathology studies with potential new therapeutic agents discovered in the Warner-Lambert/Parke-Davis Research Laboratories in Ann Arbor, Michigan; Cambridge, England; and Freiburg, Germany.

The successful candidate will have an advanced degree in Toxicology, Pathology or Allied Sciences, and will probably have additional qualifications in Veterinary Sciences. The candidate will already have experience with the toxicology of pharmaceuticals, have an established reputation through publications, have knowledge of the international requirements of drug regulatory agencies, and be prepared to meet with these agencies when required, will have excellent written and oral communication skills and will interact closely with, and travel frequently to the research laboratories in Ann Arbor, Michigan.

The salary and benefits for this highly attractive and responsible position will be very competitive. Applications from the United Kingdom would be welcomed, and generous relocation assistance will be provided. Applicants should write to: **Ms. M. Wolin, Sr. Human Resources Representative, Warner-Lambert/Parke-Davis, 2800 Plymouth Rd., Ann Arbor, MI 48105.** An Equal Opportunity Employer M/F/H.

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LAMBERT**

REHABILITATION RESEARCH SCIENTIST

The Rehabilitation Institute of Chicago is seeking a Rehabilitation Research Scientist to join the staff to fill the newly established Searle Rehabilitation Research Chair. The individual selected will also join the Northwestern University Medical School faculty at the Associate Professor or Professor level.

An outstanding, mid-career, biomedical investigator is being sought for rehabilitation-related research. The search committee is particularly interested in investigators with exceptional research credentials in the neurosciences or behavioral sciences, or with special interest related to aging, clinical results of rehabilitation or rehabilitation engineering. Rehabilitation research experience and research administration abilities are desirable.

Excellent research, clinical and academic opportunities are available. Submit application with curriculum vitae to:

**Dudley S. Childress, Ph.D.,
Search Committee Chairman, Professor of
Orthopaedic Surgery and Biomedical
Engineering, Northwestern
University Medical School,
345 E. Superior,
Chicago, IL 60611.**



**Rehabilitation
Institute of
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Equal Opportunity Employer

Clinical Research Scientist

Squibb Corporation is recognized internationally as an innovative leader in the research, development and marketing of pharmaceutical and related health care products. Due to our continued growth, we currently have a newly created opportunity available for a senior level scientist, with a strong interest and experience in document planning and preparation, to join our Clinical Research Operations Group.

Qualified candidates should have a Ph.D. in Pharmacology or Microbiology or equivalent with a minimum of 5 years experience in basic research, scientific documentation and computer application. Excellent writing skills are essential. You will be responsible for analyzing, integrating and supervising the preparation of documents from information gathered primarily from the Clinical Research area. These documents will be utilized in support of New Drug Applications and related scientific publications. Additional responsibilities include: document planning and design, manual and automated data retrieval and handling and the coordination of documentation activities.

This position is based at our corporate headquarters in Princeton, New Jersey, a pleasant semi-rural setting convenient to both Philadelphia and New York City.

In confidential consideration, please submit your curriculum vitae to **Squibb Corporation, Human Resources Department #324, P.O. Box 4000, Princeton, NJ 08543.** An equal opportunity employer.



SQUIBB

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POSITIONS OPEN

POSTDOCTORAL ASSOCIATE. The Department of Veterinary Biology, College of Veterinary Medicine, University of Minnesota, has two postdoctoral associate positions available. Duties include a minimum of 1 year to study excitatory amino acid transmitters and their relationship to opioids in the mammalian spinal cord. Experience in one or more of the following is desirable: immunocytochemistry, electron microscopy, HPLC analyses, or behavioral assays of nociception. A Ph.D. in biological sciences is required. One or 2 years of experience working in a research laboratory is desirable. Beginning date 1 August 1986 or later. Salary negotiable from \$18,000 per year. Send curriculum vitae and three letters of reference by 15 July 1986 to: **Dr. Alice Larson or Dr. Alvin Beitz, Department of Veterinary Biology, University of Minnesota, 295 Animal Science/Veterinary Medicine Building, 1988 Fitch Avenue, St. Paul, MN 55108.** *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

THE UNIVERSITY OF WESTERN ONTARIO DEPARTMENT OF PLANT SCIENCES

NSERC UNIVERSITY RESEARCH FELLOW. The Department of Plant Sciences, The University of Western Ontario, invites applications for an NSERC university research fellow who will complement present departmental research interests in the general area of population and community biology. The department is seeking a highly qualified individual who will enjoy interacting with a very strong existing group in plant population biology, which also has extension into related fields in the Department of Zoology. Current strengths are in mathematical ecology, including theoretical and applied studies in the area of community structure, function and evolution; physiological ecology; autecology of dune and weed species with special emphasis on intraspecific variation, resource allocation and seed dispersal; ecology, biosystematics, systematics, and evolution of woody apomicts and vines with special interests in reproductive biology and succulent fruit dispersal; enzymatic analysis and evolution of lichen populations. The successful candidate will be highly skilled technically and will complement, bridge, or interact with the above-mentioned fields. He or she will establish a significant research program and undertake some teaching duties, in accordance with NSERC policy. The position is for 5 years and begins 1 May 1987. The successful candidate will be nominated for a University Research Fellowship by this university in the 1986 competition. Applicants should provide curriculum vitae, a detailed description of research interests, and arrange for three letters of reference to be sent to: **The Chairman, Department of Plant Sciences, The University of Western Ontario, London, Ontario, Canada N6A 5B7, by 1 September 1986.** *In accordance with NSERC policies, this advertisement is directed to Canadian citizens and permanent residents of Canada. An Equal Opportunity Employer.*

THE UNIVERSITY OF WESTERN ONTARIO DEPARTMENT OF PLANT SCIENCES

NSERC UNIVERSITY RESEARCH FELLOW. The Department of Plant Sciences, The University of Western Ontario, invites applications for an NSERC university research fellow who will complement present departmental research interests in the molecular biology of eukaryotic microorganisms and higher plants. Current areas of research include plant tissue culture, the development and assembly of the photosynthetic apparatus in higher plants, the molecular biology of maize heat shock proteins, fungal differentiation, the molecular taxonomy of yeasts and host-parasite interactions of plant pathogenic fungi. The successful candidate should have at least 2 years of postdoctoral experience and proven expertise in recombinant DNA techniques. The candidate is expected to develop a strong, independent research program, as well as teach at the undergraduate and graduate levels in accordance with NSERC policy. The position is for 5 years and begins 1 May 1987. The successful candidate will be nominated for a university research fellowship by this university in the 1986 competition. Applicants should provide curriculum vitae, a detailed description of research interests, and arrange for three letters of reference to be sent to: **The Chairman, Department of Plant Sciences, The University of Western Ontario, London, Ontario, Canada N6A 5B7, by 1 September 1986.** *In accordance with NSERC policies, this advertisement is directed to Canadian citizens and permanent residents of Canada. An Equal Opportunity Employer.*

POSITIONS OPEN

UNIVERSITY OF TORONTO DEPARTMENT OF BOTANY POSTDOCTORAL FELLOW

Applications are invited from individuals with experience in plant tissue culture and/or *Agrobacterium*-mediated plant transformation systems. The researcher will join an active plant molecular biology group and participate in a number of projects involving photosynthesis, lipid metabolism and secondary plant products. Technical assistance is provided with the position.

The position is available 1 July 1986 for 18 months with possible renewal for another year. Starting salary is a minimum of \$21,000 (Can.) per annum depending on experience. Applications with curriculum vitae and letter from two referees should be sent to:

**Dr. J. P. Williams, Chairman
Department of Botany,
Botany Building
University of Toronto
Toronto, Ontario, M5S 1A1**

POSTDOCTORAL POSITION—DEPARTMENT OF BIOCHEMISTRY, UNIVERSITY OF TENNESSEE, MEMPHIS available October 1986 to study insulin receptor regulation and insulin action. New laboratory facilities and equipment. Experience in protein purification, cell culture, and computers desirable. Salary according to NIH guidelines. Send curriculum vitae, outline of research goals, three letters of reference, and reprints to: **Dr. Stephen Marshall, University of California, Department of Medicine M-023E, La Jolla CA 92093.**

QUANTITATIVE WILDLIFE ECOLOGIST, Michigan State University, Assistant Professor, 12-month, tenure-track, starting as early as July 1986. The applicant will be expected to conduct research and publish results in the area of wildlife population dynamics and management. Major responsibilities include undergraduate and graduate student advising, teaching undergraduate courses in wildlife biometry and population analysis, and developing a graduate course in area of expertise. Applicants must possess a Ph.D. in wildlife ecology and have a commitment to teaching, research, and public service.

Submit résumé, undergraduate and graduate transcripts, publications, three letters of recommendation, and statement of research and teaching interests by 30 May 1986 to:

**Dr. Harold H. Prince
Search Committee Chairperson
Department of Fisheries and Wildlife
Michigan State University
East Lansing, Michigan 48824-1222**

Michigan State University is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF LEUVEN, BELGIUM FACULTY OF MEDICINE

Center for Thrombosis and Vascular Research
Applications are invited for the post of

RESEARCH PROFESSOR IN MOLECULAR BIOLOGY

**funded by the
LOUIS JEANTET FOUNDATION FOR
MEDICINE**

The candidate will have minimal teaching and administrative responsibilities in order to be able to devote maximal efforts to research. He/she will be eligible for the highest applicable salary level (associate professor). The position is funded for 5 years, with interim evaluations to be made following the first and third years and with the possibility for continued support by alternative sources.

Under consideration will be top level investigators with an established research curriculum and at least 5 years of experience in the field of recombinant DNA research, including the cloning, expression, and mutagenesis of DNA. The candidate will be expected both to collaborate with **D. Collen** in ongoing research projects on the mechanisms of thrombosis and to initiate new projects in this and allied fields.

Applications (4 copies) with curriculum vitae and three letters of recommendation to: **D. Collen, M.D. Ph.D., Center for Thrombosis and Vascular Research, University of Leuven, Campus Gasthuisberg, B-3000 Leuven, Belgium.**

POSITIONS OPEN

POSTDOCTORAL POSITION

Fall 1986 to study recombination, conversion-like events, and transposition at the molecular level in maize. Extensive experience in restriction mapping, cloning, and DNA sequencing required. Submit statement of goals and curriculum vitae listing three references to: **Dr. John P. Mottinger, Department of Botany, THE UNIVERSITY OF RHODE ISLAND, Kingston, RI 02881-0812.** *An Affirmative Action/Equal Opportunity Employer, M/F.*

POSTDOCTORAL POSITION available immediately to study chitin catabolism and cuticle structure in insects. Background in enzymology, molecular biology (cloning) protein, or carbohydrate chemistry desirable. Send letter of introduction, résumé, and names of four references to: **Dr. Karl Kramer, Department of Biochemistry, Kansas State University, Manhattan, KS 66506.** *KSU is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE, PROTEIN DATA BANK, to carry out statistical analyses of crystal structure data for proteins; to develop procedures to give reliable estimates of errors in atomic positions in proteins; and to study systematics of packing interactions. The Protein Data Bank, which operates within the Chemistry Department at Brookhaven National Laboratory, is the internationally recognized computer database for structures of biological macromolecules. It is desirable that candidates have knowledge of refinement protocols currently used in crystallographic studies of both small and large molecules. Applicants with a background in applied mathematics and a desire to learn about the computational aspects of protein crystallography will be considered. Proficiency in programming in FORTRAN is required. The initial appointment will be for 1 year, with renewal possible for 2 further years. To apply, send curriculum vitae that includes the names of three references to: **Dr. Thomas F. Koetzle, Chemistry Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, L.I., New York 11973.** *Equal Opportunity Employer, M/F.*

SLOAN-KETTERING INSTITUTE— POSTDOCTORAL TRAINING

Two-year position available (\$24,000 per annum) immediately in cellular and molecular immunology, to study mechanism of lymphocyte activation. Experience in cell culture technique, and immunochemistry or molecular biology is preferred. Send résumé and references to: **Dr. U. Hämmerling or Dr. M. K. Hoffman, Immunology Department, 410 East 68 Street, New York, NY 10021.** *Sloan-Kettering Institute is an Equal Opportunity/Affirmative Action Employer.*

RADIOPHARMACIST. Assistant/associate professor with responsibilities in teaching, research, and patient care. Ph.D. or equivalent with background in radiopharmaceutical science, medicinal chemistry, synthetic or organic chemistry. Contact: **Dr. Richard P. Spencer, Department Nuclear Medicine, University Connecticut Health Center, Farmington, CT 06032; telephone 203-674-3120.**

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RESEARCH ASSOCIATE to perform electrophysiological mapping studies of auditory cortex in macaques in conjunction with ablation/behavior studies. Require Ph.D. with experience in single and multiunit recording, preferably in the auditory system. Appointment for two or more years, depending on funds. Minimum salary \$20,000, more depending on experience. Application deadline 20 June 1986. Send letter of application, curriculum vitae, and names of three references to: **Dr. Henry E. Heffner, Bureau of Child Research, University of Kansas, P.O. Box 738, Parsons, KS 67357.** *Equal Opportunity/Affirmative Action Employer.*

RESEARCH TECHNICIAN SOUGHT FOR AIDS VIRUS laboratory at State University of New York—Stony Brook studying molecular virology and conducting antiviral trials. Responsibilities include analysis of viral DNA and RNA and cultivation of the AIDS virus. Experience in molecular virology and/or expertise in tissue culture and recombinant DNA technology required. Full-time position. Salary range \$20,000 to 25,000. Telephone **Dr. Weiser 516-444-1660.** *An Affirmative Action/Equal Opportunity Employer.*

NIH PROGRAM FOR DEVELOPING TREATMENTS FOR ACQUIRED IMMUNODEFICIENCY SYNDROME

The National Cancer Institute and the National Institute of Allergy and Infectious Diseases of the National Institutes of Health, Bethesda, MD, have jointly organized an AIDS Drug Selection Committee to review and facilitate the development (testing) of possible treatments for AIDS. This committee is constituted to review suggestions submitted for treatment of AIDS patients and, in certain cases, to recommend appropriate pre-clinical and clinical research or further development. Interested parties who have synthetic or natural substances known to inhibit the growth of the retro-virus known to cause AIDS, or which may preserve or augment the immune status of infected persons, are encouraged to share this information. The committee will hold information of a proprietary nature in the strictest confidence. Detailed proposals should contain the following information:

1. The precise nature and composition of the substance or, if proprietary, a willingness to reveal that information to a closed session of the AIDS Drug Selection Committee.
2. Data regarding the substance's or substances' known biological, chemical, physical or psychological properties.

3. Data regarding the *in vitro* activity of the substance or substances such as to suggest that it might be active against the virus associated with AIDS, or function as an immunomodulator.
4. Data from animal studies, if any, indicating its safety, tolerance, and efficacy in conditions possessing some similarities to AIDS.
5. Data from human studies, if any, indicating its safety and tolerance.
6. A statement of willingness, if any, by an organization to supply material or to cooperate in the preparation of adequate amounts of material for study purposes.

Proposals should be submitted in writing to:

Eddie Reed, M.D.
Executive Secretary
AIDS Drug Selection Committee
Bldg, 31, Room 3A49
9000 Rockville Pike
National Institutes of Health
Bethesda, MD 20892

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POSTDOCTORAL POSITION is available immediately for biochemist, biophysicist, or molecular biologist to study the role of metal in the regulation and mechanism of gene expression in both prokaryotic and eukaryotic cells, particularly in RNA polymerases and metallothioneins. Experience in metalloproteins is helpful. Send curriculum vitae and three letters of recommendation to: **Professor Felicia Y.-H. Wu, Department of Pharmacological Sciences, Health Sciences Center, State University of New York (SUNY)—Stony Brook, Stony Brook, NY 11794-8651. SUNY—Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK number 101-A.**

RESEARCH ASSOCIATE MOLECULAR BIOLOGY/IMMUNOLOGY USDA-AGRICULTURAL RESEARCH SERVICE (ARS)

A research associate position to study foot-and-mouth disease virus (FMDV) anti-idiotypic antibodies (anti-Ids) is available immediately. Studies will focus on the use of anti-Ids as vaccines and as probes to study animal response to FMDV infection and immunization. Applicants should have a background in immunology and monoclonal antibody technology. Virology experience is desirable, but not essential. The position is for up to 2 years and is funded at \$26,381. Applicants must be U.S. citizens and have received a relevant Ph.D. within the last 2 years. Interested individuals should send curriculum vitae including names and addresses of three references to: **Dr. Barry Baxt, USDA-ARS, Plum Island Animal Disease Center, P.O. Box 848, Greenport, NY 11944. For information, telephone: 516-323-2500 (extension 276). Applications must be received by 30 June 1986, and should be marked 6E035. MALES BORN AFTER 31 DECEMBER 1959 DESIRING FEDERAL EMPLOYMENT MUST BE REGISTERED WITH THE SELECTIVE SERVICE SYSTEM.**

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RESEARCH SCIENTIST AND POSTDOCTORAL POSITIONS available immediately to join group engaged in study of autoimmunity-associated ribonucleoprotein complexes. Research projects include functional study of associated transcription factors, characterization of macromolecular properties, and delineation of polypeptide antigens using recombinant DNA technology. Research scientist position requires minimum of 3 years of postdoctoral experience and offers opportunity to develop own research program. Send résumé and three references to: **Dr. S. O. Hoch, Agouron Institute, 505 Coast Boulevard South, La Jolla, CA 92037.**

SUMMER RESEARCH POSITIONS are available at the **Trudeau Institute** for professors of 4-year colleges with a Ph.D. in immunobiology or a closely related field. The successful applicant will be provided the opportunity to perform collaborative research with a member of the Trudeau Institute staff. Accommodation is available and an appropriate salary will be provided.

The Trudeau Institute is a not-for-profit, pure research institute, located on the shore of Saranac Lake, in the Adirondack Mountains, 8 miles from Lake Placid, New York.

Send curriculum vitae and a letter of reference from the department chairman to:

**Dr. R. J. North, Director
Trudeau Institute, Inc.
P.O. Box 59
Saranac Lake, NY 12983**

VETERINARY NUTRITIONIST. The Department of Veterinary Clinical Sciences, The Ohio State University, invites applications for a tenure-track faculty position. Candidates must have the D.V.M. (or equivalent) and the Ph.D. degrees. Responsibilities include teaching clinical nutrition in the core veterinary medical curriculum, nutritional consultation with faculty and students in the clinical services, advisement and instruction of graduate students, and research in nutritional diseases of domestic animals. Faculty rank and salary are negotiable. Deadline for applications is 1 June 1986. Send letter of interest, curriculum vitae, and the names of three references to: **Dr. Lawrence E. Heider, 1900 Coffey Road, Columbus, OH 43210.**

POSITIONS OPEN

SUMMER INSTITUTE IN RISK MANAGEMENT IN ENVIRONMENTAL HEALTH AND PROTECTION, 17 to 20 July 1986. Managerial, legal, and financial aspects of chemical risk problems; risk perception and risk assessment procedures. Faculty from medical and natural sciences, law, psychology, and management. Bachelor's degree or equivalent required. Telephone or write: **Professor Rae Zimmerman, Graduate School of Public Administration, New York University, 4 Washington Square North, New York, NY 10003; telephone: 212-598-3725.**

CONFERENCE

The New York Academy of Sciences THIRD INTERNATIONAL CONFERENCE ON VITAMIN C 8 to 10 October 1986 Vista International Hotel, New York City

This international conference will examine our current knowledge of vitamin C with emphasis on the most recent advances in the biochemical, neurochemical, nutritional, epidemiological, and clinical areas. The conference will bring together scientists from a variety of disciplines so that new information concerning the functions of the vitamin at the molecular and cellular levels, as well as findings relevant to human health can be discussed.

There will be contributed poster sessions. The deadline for the submission of abstracts is 15 June 1986. A 200-word summary of the work to be presented should be sent to: **John J. Burns, Ph.D., Box 300, The Rockefeller University, 1230 York Avenue, New York, NY 10021.**

Co-Chairs: Dr. John J. Burns, The Rockefeller University, New York and Dr. Jerry M. Rivers, Cornell University, New York

Inquiries should be addressed to: **Conference Department, The New York Academy of Sciences, 2 East 63 Street, New York, NY 10021.**

TRAINEESHIPS

POSTDOCTORAL TRAINEESHIPS IN CANCER BIOLOGY

Applications are invited for positions in the NCI supported "Training Program in Cancer Biology" of the Meyer L. Prentis Comprehensive Cancer Center of Metropolitan Detroit. This center is composed of the two campuses of Wayne State University (The School of Medicine and main campus) and the Michigan Cancer Foundation. Initial appointment will be for a period of 1 year with renewal possible. Program provides for broad training of postdoctoral trainees in areas such as: breast cancer, metastasis, cancer immunology, carcinogenesis, tumor biology, molecular biology and epidemiology, drug synthesis, and experimental therapeutics.

Trainees are selected on their potential for future excellence and achievement in cancer research and are expected to undertake significant research projects within a variety of disciplines.

APPLICATION: Submit curriculum vitae and three references to: **Dr. S. C. Brooks, Associate Director of Laboratory Research, The Meyer L. Prentis Comprehensive Cancer Center of Metropolitan Detroit, 110 East Warren Avenue, Detroit, Michigan 48201.**

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FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP to study production and regulation of secondary metabolites in normal and transformed plant tissue cultures. Work involves preparation of cultures and analysis of compounds by HPLC and related techniques. Prior experience in this field non-essential. Salary \$1,700 Canadian per month. Appointment starting 15 May 1986. Send complete curriculum vitae and three letters of reference to: **Dr. Joan McPherson, Botany Department, The University of British Columbia, Vancouver, B.C., Canada V6T 2B1.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP UNIVERSITY OF CALIFORNIA, IRVINE

Immediate postdoctoral position available for radiobiological studies of human hybrid cells (genetic aspects of cellular radiosensitivity, oncogenic cell transformation). Tissue culture experience and working knowledge of cellular radiation biology and modern techniques in molecular biology desirable. Salary commensurate with experience. Send curriculum vitae, names of three references, and letter outlining experience and interests to:

**J. Leslie Redpath, Ph.D.
Division of Radiation Oncology
Department of Radiological Sciences
University of California, Irvine
Irvine, California 92715**

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POSTDOCTORAL FELLOWSHIP—The Connecticut Department of Health Services in cooperation with the University of Connecticut has an opening for a 2-year, postdoctoral fellow starting June 1986. The fellowship carries remuneration of \$22,500 per year, plus an allowance for purchase of private health insurance. The applicant should have experience in environmental chemistry, instrumentation, EPA methodology, and regulations. Emphasis will be on organic pollutants in water. Send curriculum vitae to: **Jesse S. Tucker, Ph.D., Director, Connecticut Department of Health Services, Laboratory Division, P.O. Box 1689, Hartford, CT 06144.**

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POSTDOCTORAL FELLOWSHIPS in accredited human genetics training program available July 1986. (i) molecular genetics: cloning and isolation of DNA markers for genetics disorders. (ii) molecular genetics/cytogenetics: mapping of genes and DNA markers in situ hybridization. (iii) connective tissue disorders (collagen and elastin metabolism): monoclonal experience preferred. Send letter of interests, curriculum vitae and names of three references to: **Harold A. Taylor, Ph.D., Laboratory Director, Greenwood Genetic Center, 1 Gregor Mendel Circle, Greenwood, SC 29646.**

POSTDOCTORAL FELLOWSHIP IN HYPERTENSION: Successful candidate will join an interdisciplinary program investigating molecular mechanisms in essential hypertension. Salary for this 1-year position beginning 1 July 1986 is commensurate with experience; U.S. citizenship or permanent residency required. Individuals should hold an M.D. or Ph.D. and should have spent some time in postgraduate clinical training or in research. Send curriculum vitae and names of three references to: **Dr. Joseph Loscalzo, Division of Vascular Medicine, Department of Medicine, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115.**

POSTDOCTORAL/POSTDOCTORAL FELLOWSHIP IN MOLECULAR BIOLOGY of genes expressed in connective tissue with special emphasis on mutations that produce genetic diseases. Opportunities will be provided to learn current recombinant DNA technologies and to develop new ones. Applicants must have Ph.D. in biochemistry or related areas. Salary competitive. Apply to and send letters of recommendations to: **D. J. Prockop, JEFFERSON INSTITUTE OF MOLECULAR MEDICINE, Department of Biochemistry, 1020 Locust Street, Philadelphia, PA 19107. An Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP (M.D. or Ph.D.) position is available beginning 1 July 1986 to study the mechanism(s) of regulation of inflammation in animal models of disease. Animal models presently being studied are (i) antigen-induced synovitis, (ii) murine collagen-induced arthritis, and (iii) murine *Schistosoma japonicum* infection. These studies involve the analysis of immune network interactions, generation of antigen-specific T cell hybrids and lymphokines, as well as the analysis of arthrogenic protein epitopes of collagen and proteoglycans, in addition to schistosome egg antigens. Send curriculum vitae and the names of three references to: **Thomas H. Kresina, Ph.D., Department of Medicine, University Hospitals of Cleveland, Cleveland, Ohio 44106.**

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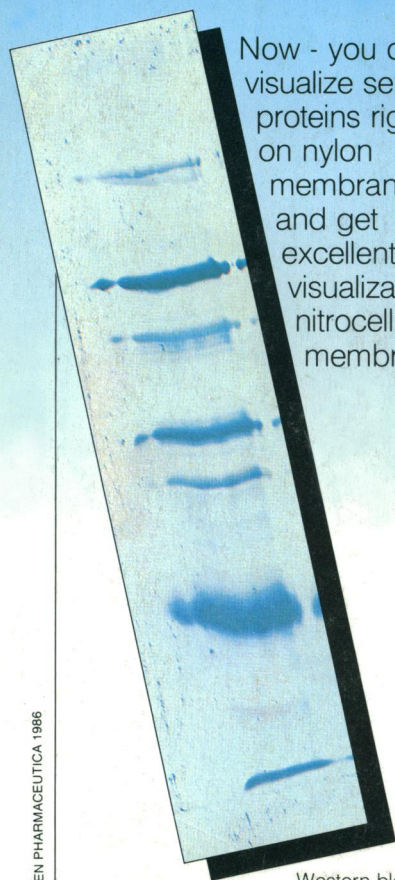
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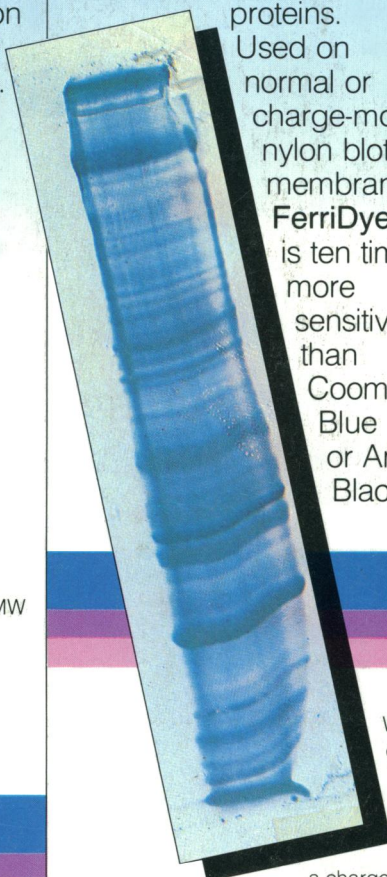
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