

nitive neuroscience" suggests a new approach to the old puzzles of mind and brain. Problems of mind at the cognitive level become problems of brain for neurobiology. A quantitative transition from one level to another replaces the old mind-brain dichotomy. In this interpretation, experience becomes a functional adjunct to some of the higher levels of behavioral integration.

BRUCE BRIDGEMAN
Program in Experimental Psychology,
University of California,
Santa Cruz, CA 95064

Yeasts

Yeast Cell Biology. JAMES HICKS, Ed. Liss, New York, 1986. xxii, 671 pp., illus. \$125. UCLA Symposia on Molecular and Cellular Biology, New Series, vol. 33. From a symposium, Keystone, CO, April 1985.

During the past 10 years research on yeasts has undergone rapid progress on several fronts. This progress stems from the development of molecular genetic techniques for isolating genes and for changing any chosen nucleotide in the yeast genome. The phenotypic effects of mutations thus produced, including even lethal ones, can be determined readily by various biochemical, immunochemical, and genetic selection techniques. Data collection is also facilitated by a short (two hours) life cycle and simple growth conditions. In addition, improvements in cellular fraction techniques now allow nearly all types of organelles to be purified in large quantities.

This collection of papers provides a clear indication that our understanding of cell biology at the molecular level will expand at an explosive rate in the next decade. It offers glimpses into several areas of cell biology in which yeasts, primarily *Saccharomyces cerevisiae*, are being used to dissect fundamental cellular processes. One cannot help sensing the aura of excitement that surrounds this research.

Topics covered include the cytoskeleton, control of the cell cycle, DNA replication and chromosome structure, nuclear organization, macromolecular traffic (proteins localized in the nucleus; secretion, endocytosis, and the cell surface; import of proteins into mitochondria), and models for development.

Several contributions provide sufficient background material to allow beginning and advanced researchers whose expertise lies elsewhere to comprehend not only the experimental details presented but also how they fit into the larger scheme of the cell. Papers in this vein include those by Pillus

and Solomon and Thomas *et al.* on the cytoskeleton, by Ng *et al.* on centromeres, by Guthrie *et al.* on small RNA's and RNA processing, and by Gross *et al.* on chromatin structure and gene expression. The final chapter, by Herskowitz, on yeast as a model for development, lucidly describes how yeast cells "make it possible to learn about several important areas of cell biology, in particular, the cell cycle and growth control, protein localization, chromosome structure, meiosis, and morphogenesis."

This book should appeal to a wide audience including graduate students and senior researchers who want to survey selected areas of cell biology. Although one can profitably read a few papers, I highly recommend reading the entire book because it provides a global view of current and future research directions in cell biology.

ROBERT C. DICKSON
Department of Biochemistry,
University of Kentucky Medical School,
Lexington, KY 40536

Books Received

African Iron Working. Ancient and Traditional. Randi Haaland and Peter Shinnie, Eds. Norwegian University Press, Oslo, 1985 (U.S. distributor, Oxford University Press, New York). 211 pp., illus. \$42.

The Air Controllers' Controversy. Lessons from the PATCO Strike. Arthur B. Shostak and David Skocik. Human Sciences Press, New York, 1986. 274 pp., illus. \$34.95; paper, \$15.95.

Air Pollution. Arthur C. Stern, Ed. 3rd ed. Academic Press, Orlando, FL, 1986. Vol. 6, Supplement to Air Pollutants, Their Transformation, Transport, and Effects. xii, 483 pp., illus. \$70. Vol. 7, Supplement to Measurements, Monitoring, Surveillance, and Engineering Control. xiv, 523 pp., illus. \$69.50. Vol. 8, Supplement to Management of Air Quality. xii, 206 pp., illus. \$43.50. Environmental Sciences.

Alfred Wegener. The Father of Continental Drift. Martin Schwarzbach. Science Tech, Madison, WI, 1986. xx, 241 pp., illus. \$35. Scientific Revolutionaries. Translated from the German edition (Stuttgart, 1980). Original edition reviewed in *Science* 209, 681 (1980).

Boundary Value Problems for Higher Order Differential Equations. Ravi P. Agarwal. World Scientific, Philadelphia, 1986. xii, 307 pp., illus. \$35.

Brain and Blood Pressure Control. Keiji Nakamura, Ed. Excerpta Medica (Elsevier), New York, 1986. xii, 455 pp., illus. \$92.50. International Congress Series, no. 695. From a symposium, Tokyo, Oct. 1985.

The Brain, Cognition, and Education. Sarah L. Friedman, Kenneth A. Klivington, and Rita W. Peterson, Eds. Academic Press, Orlando, FL, 1986. xiv, 385 pp., illus. \$34.95.

The Conscious Mind. A Developmental Theory. A. J. Malerstein. Human Sciences Press, New York, 1986. 163 pp., illus. \$24.95.

Contemporary Classics in Plant, Animal, and Environmental Sciences. Compiled by James T. Barrett. ISI Press, Philadelphia, 1986. xv, 371 pp. \$39.95. Contemporary Classics in Science.

Contemporary Theory of Chemical Isomerism. Zdeněk Slanina. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). viii, 254 pp., illus. \$59. Understanding Chemical Reactivity. Translated from the Czechoslovakian edition (Prague, 1986).

Control and Dynamic Systems. Advances in Theory and Applications. C. T. Leonides, Ed. Academic Press, Orlando, FL, 1986. Vol. 23, Decentralized/Distributed Control and Dynamic Systems. Part 2 of 3. xii, 323 pp., illus. \$49.50. Vol. 24, Decentralized/Distributed Control and Dynamic Systems. Part 3 of 3. x, 362 pp., illus. \$57.50.

The Dynamics of Physiologically Structured Populations. J. A. J. Metz and O. Diekmann, Eds. Springer-Verlag, New York, 1986. xii, 511 pp., illus. Paper, \$47.70. Lecture Notes in Biomathematics, 68. Based on a colloquium, Amsterdam, 1983.

Dynamics of Wave Packets in Molecular and Nuclear Physics. Jan Broeckhove, Luc Lathouwers and Piet van Leuven, Eds. Springer-Verlag, New York, 1986. viii, 187 pp., illus. \$20. Lecture Notes in Physics, 256. From a meeting, Priorij Corsendonck, Belgium, July 1985.

Einstein's Dream. The Search for a Unified Theory of the Universe. Barry Parker. Plenum, New York, 1986. x, 287 pp., illus. \$18.95.

Electromyography for Experimentalists. Gerald E. Loeb and Carl Gans. University of Chicago Press, Chicago, 1986. xx, 373 pp., illus. \$60; paper, \$22.

Fundamentals of the Theory of Operator Algebras. Vol. 2, Advanced Theory. Richard V. Kadison and John R. Ringrose. Academic Press, Orlando, FL, 1986. xiv pp. + pp. 399-1074. \$79.50; paper, \$39.50. Pure and Applied Mathematics.

GABA and Endocrine Function. Giorgio Racagni and Alfredo O. Donoso, Eds. Raven, New York, 1986. xviii, 302 pp., illus. \$55. Advances in Biochemical Psychopharmacology, vol. 42. From a symposium, Buenos Aires, Nov. 1985.

Galaxy Distances and Deviations from Universal Expansion. Barry F. Madore and R. Brent Tully, Eds. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xviii, 301 pp., illus. \$64. NATO Advanced Science Institutes Series C, vol. 180. From a workshop, Kona, HI, Jan. 1986.

Ion-Exchange Sorption and Preparative Chromatography of Biologically Active Molecules. G. V. Samsonov. D. C. Sherrington, transl. ed. Consultants Bureau (Plenum), New York, 1986. xiv, 163 pp., illus. \$45. Macromolecular Compounds. Translated from the Russian by R. N. Hainsworth.

Justice in Social Relations. Hans Werner Bierhoff, Ronald L. Cohen, and Jerald Greenberg, Eds. Plenum, New York, 1986. xvi, 364 pp., illus. \$39.50. Critical Issues in Social Justice. Based on a meeting, Marburg, FRG, July 1984.

Knotted Doughnuts and Other Mathematical Entertainments. Martin Gardner. Freeman, New York, 1986. xvi, 278 pp., illus. \$16.95; paper, \$10.95.

Language and Production. A Critique of the Paradigms. Gyorgy Markus. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xvi, 190 pp. \$49.50. Boston Studies in the Philosophy of Science, vol. 96. Translated from the French edition (Paris, 1982).

Like Engend'ring Like. Heredity and Animal Breeding in Early Modern England. Nicholas Russell. Cambridge University Press, New York, 1986. x, 271 pp., illus. \$42.50.

The Mollusca. Vol. 9, Neurobiology and Behavior, Part 2. A. O. Dennis Willows, Ed. Academic Press, Orlando, FL, 1986. xii, 499 pp., illus. \$85.

MPTP. A Neurotoxin Producing a Parkinson Syndrome. Sanford P. Markey *et al.*, Eds. Academic Press, Orlando, FL, 1986. xiv, 722 pp., illus. \$55. From a symposium, Bethesda, MD, June 1985.

Multiple Cropping Systems. Charles A. Francis, Ed. Macmillan, New York, 1986. xvi, 383 pp., illus. \$37.50.

Namias Symposium. (La Jolla, CA, Oct. 1985.) John O. Roads, Ed. Scripps Institution of Oceanography, University of California at San Diego, La Jolla, 1986 (available from UCSD Bookstore, c/o E. Florence, La Jolla, CA 92093). vi, 202 pp., illus. Paper, \$6.75. Scripps Institution of Oceanography Reference Series, 86-17.

Neurobiology of Central D₁-Dopamine Receptors. George R. Breese and Ian Creese, Eds. Plenum, New York, 1986. viii, 219 pp., illus. \$45. Advances in Experimental Medicine and Biology, vol. 204.

Receptors in Cellular Recognition and Developmental Processes. Reginald M. Gorczynski, Ed. Academic Press, Orlando, FL, 1986. xx, 337 pp., illus. \$54.95. Cell Biology.

Risk Evaluation and Management. Vincent T. Covello, Joshua Menkes, and Jeryl Mumpower, Eds. Plenum, New York, 1986. xii, 544 pp., illus. \$79.50. Contemporary Issues in Risk Analysis, vol. 1.

Sampling for Microbiological Analysis. Principles and Specific Applications. 2nd ed. University of Toronto Press, Buffalo, NY, 1986. xxiv, 293 pp., illus. \$37.50. Microorganisms in Food, vol. 2. Sponsored by the International Commission on Microbiological Specifications for Foods (ICMSF) of the International Union of Microbiological Societies.

Science Trivia. From Anteaters to Zeppelins. Charles J. Cazeau. Plenum, New York, 1986. x, 285 pp. \$17.95.

Products & Materials

Data Acquisition Computer System

The Scientific Laboratory System (SLS) is a real-time data acquisition hardware and software computer system. Its operating system, called RTU, is an enhanced version of UNIX. It also features Laboratory Workbench, a menu-driven scientific software package. Pull-down menus, pop-up displays, graphical icons, and interactive controls eliminate the need for programming. American National Standards Institute (ANSI)-validated FORTRAN, floating point and optional array processors, and a Data Acquisition Control Processor are other features of this system. The SLS can sample data at speeds up to 1 MHz, can process data at 2.5 million instructions per second, and can reach computational speeds greater than 3 million whetstones per second. MASSCOMP. Circle 536.

Micropipette Injector

The Model PV820 PicoPump injects drugs and other fluid materials by pressure through a micropipette. Its precisely regulated pressure and timing result in reproducible and quantitative control of as little as tens of picoliters. The micropipette will not backfill by capillary action between injections. Pressure may range from 0 to 90 psi. Timed pressure pulses of 10 milliseconds to 10 seconds may be initiated manually, automatically through a computer hookup, or by an optional foot switch. The PV820 comes with two micropipette holders and tubing to connect the holders to the pressure ports. World Precision Instruments. Circle 538.

Thermostable Inert Column

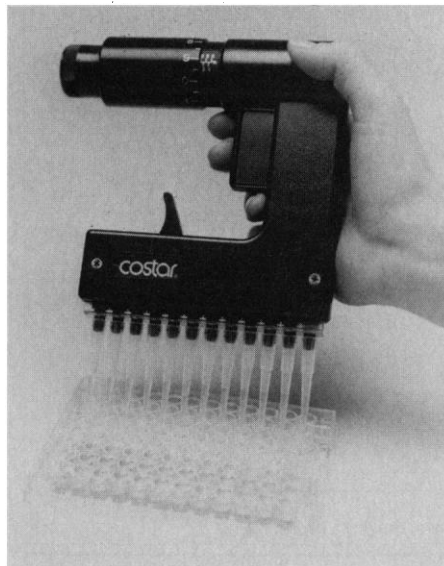
High-temperature analysis of fatty acid methyl esters (FAME) may now be performed with a capillary column customized for that purpose. The FAME column is inert and thermostable up to 240°C. Efficiency levels may approach 225,000 theoretical

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.

planes. FAME columns are pretested and guaranteed for fatty acid methyl ester positional and geometric isomer separations. The columns offer reproducible results. Chrompack. Circle 542.

Multichannel Pipetting Instrument

The 12-pette is a precision, adjustable volume, multichannel pipetting instrument. It dispenses and samples precise volumes of liquids through 1 to 12 channels. Tips are



spaced to match standard 96-well microplates. The 12-pette holds from 20 μ l to 200 μ l and has a 0.5 μ m scale division. It is autoclavable. All operations, including remote tip ejection, may be performed with one hand. Costar. Circle 526.

Bioreactor

The BR-06 Bioreactor has a horizontal rotating screen fixed to the stirrer so that oxygen transfer is increased without production of foam. The stirrer floats on the surface of the medium in the optimum position to produce an effective Thomson secondary flow and to increase the rate of solution of oxygen through increased surface agitation. Four vertical magnetic poles drive the BR-06. These magnetic poles are electronically controlled to create a rotating magnetic field with a precise frequency. Thus, there are no bearings, belts, or gears to wear out or make noise. The spherical flask accepts between 600 ml and 3 liters of medium. The lid is a flat, stainless steel disk with ten ports and is clamped to the flask with an O-ring for a completely pathogen-proof seal. Techno. Circle 543.

Laser Power Stabilizers

The LS-100 and LS-200 stabilize the intensity output of continuous wave lasers. The stabilizers increase the signal-to-noise ratio by removing high-speed noise and low-speed drift. Each stabilizer consists of two units, an electro-optic module and an electronic servo unit. The optics module has a clear aperture of 2 mm and is easily aligned in the unexpanded beam of helium-neon, helium-cadmium, argon and krypton ion, dye, and neodymium-doped yttrium aluminum garnet lasers, accepting up to 15 W of power. Optical transmittance for linearly polarized lasers is 70 to 75% over the 360- to 1150-nm spectral range. The servo unit has a noise attenuation factor of 400 around 1 Hz and a bandwidth of 300 kHz. Cambridge Research and Instrumentation. Circle 546.

Literature

Pipette Recalibration and Repair describes a cleaning, calibration, and repair service for pipettes. Trupipet. Circle 547.

PepSyn Reagents for Fmoc Solid Phase Peptide Synthesis is a brochure detailing an alternative to butoxycarbonyl treatments. MilliGen. Circle 548.

25 Years of Electronic Materials Technology is a catalog of electronic materials systems. Electro-Science Laboratories. Circle 549.

Crystalline Optics is a catalog containing crystalline optical components, including replacements for most Fourier transform infrared spectroscopy accessories. Spectral Systems. Circle 550.

Elutriator Rotors, Bulletin SB-574F is a brochure featuring an elutriation system; it includes a list of the types of living cells that have been successfully separated with elutriation. Beckman Instruments, Spinco Division. Circle 551.

Fiber Optic Components and Systems is a catalog of fibers, bundles, cables, active devices, sensors, connectors, and other fiber optic components. General Fiber Optics. Circle 554.

Complement Antibodies and Related Products features a line of monoclonal antibodies, polyclonal goat antisera, specific complement protein depleted sera, human complement proteins, and complement reagents. Cytotech. Circle 553.

Research Product Catalog contains cell growth factors, radioimmunoassay and enzyme immunoassay kits and components, monoclonal and polyclonal antibodies, fluorescent markers and probes, purified proteins, 125 I-labeled products, and plastic labware. Biomedical Technologies. Circle 555.

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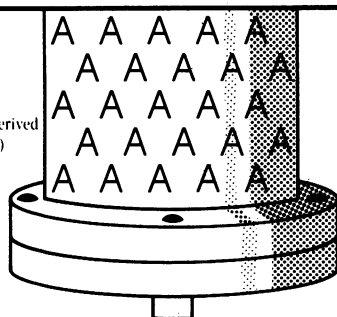
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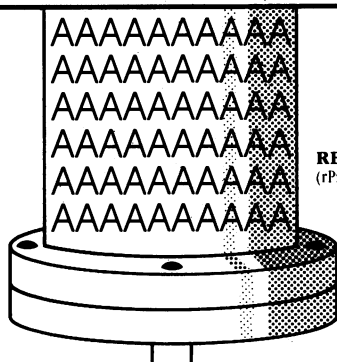


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Bio-organic/Physiology/Chemistry Ph.D. Ten years experience in membrane research in Europe and U.S.A. Broad educational background in organic synthesis and analysis, chemical engineering, membrane protein purification, enzymatic reaction, hormone-receptor interaction (binding studies), preparation of unilaminated liposome and reconstitution of membrane proteins, transport of sugar, amino acids and electrolyte in nephron, modification of membrane proteins, cellular Ca-regulation and transport. Desires to be involved in an industrial or academic research group. Box 1, SCIENCE. X

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Immunopathologist/Electron Microscopist, Ph.D. seeks position in biomedical company or core/reference laboratory in immunology, DNA hybridization, histochemistry, pathology or microscopy as director or administrator, 10 years experience in administrative/management/methodology. Box 2, SCIENCE.

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SCIENCE, VOL. 235

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Drug Metabolism/Disposition. Ph.D. with 2 years of postdoctoral experience seeks position in the pharmaceutical industry. Strong background in medicinal chemistry, pharmacology and toxicology. Extensive experience in analytical development. Box 225, SCIENCE. 1/16, 23

Microbiologist. Recent Ph.D. experience in virology, bacteriology and parasitology. Has limited molecular biology experience. Desires additional postdoctoral experience in applied molecular biology. Box 3, SCIENCE. X

Statistician, Biologist, Computist (Ph.D. 1981). I have extensive research experience, abilities and publication, especially in evolutionary biology, genetics, ecology, scientific and general programming. Freelance projects desired in any area of science. Don Gilbert, P.O. Box 302, Bloomington, IN 47402. Telephone: 812-333-5616. 1/16, 23

Technical Editor/Writer. Ph.D. in physics, but wide experience in many subjects: mechanical engineering, risk analysis, environmental studies, scientometrics, economics, others. Over 100 papers in journals such as *Science*, *Nature*, as well as four single-author books. In addition, can write for a lay audience: hundreds of newspaper articles, radio talks. I can help your writing/editing projects without capital outlay on your part. I'll do grant applications, library work, public relations writing, manuscript editing, speeches, manuals, many others. Competitive rates. Box 1231, Oak Ridge, TN 37830. 1/16, 23, 30

POSITIONS OPEN

ANATOMY AND PHYSIOLOGY

Raymond Walters College, a 2-year general and technical college of the University of Cincinnati, invites applications for two tenure-track positions at the assistant professor level to begin 1 September 1987. For Position I, the primary duties include teaching anatomy and physiology plus a course in molecular biological techniques to include tissue culture and instrumentation. For Position II, the primary duty will include teaching anatomy and physiology plus a course in genetics or histological techniques. Applicants must have a Ph.D. in the biological sciences and significant teaching experience at the college level. Please send a detailed résumé, including a summary of teaching experience, courses taught, evidence of teaching proficiency (student evaluations), college transcripts, and three letters of professional reference to: **Dr. Donald M. Meisner, Chairman, Department of Biology, Raymond Walters College, University of Cincinnati, 9555 Plainfield Road, Cincinnati, OH 45236.** All application materials must be received by 1 March 1987. *The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer.*

PHYSIOLOGY AND BIOPHYSICS ASSISTANT PROFESSOR

The Department of Physiology and Biophysics, University of Vermont College of Medicine, invites applications for a tenure-track position. Applicants should have a doctorate in physiology and/or biophysics and two or more years of postdoctoral training, or an M.D. and postdoctoral training. Candidates must demonstrate outstanding teaching potential and excellence in research at a molecular or cellular level. The successful candidate will be expected to fulfill moderate teaching responsibilities in medical, undergraduate, and graduate courses with distinction, and to establish a vigorous and productive independent research program that merits extramural support. Preference will be given to those whose research interests complement those of the existing faculty, and to those willing and able to teach subjects other than their specialties. *Women and minority candidates are encouraged to apply.* Letter of application, curriculum vitae, a brief description of research and career goals, and the names of three references must be received by 23 February 1987. Address to: **Dr. W. R. Gibbons, Search Committee, Department of Physiology and Biophysics, University of Vermont College of Medicine, Burlington, VT 05405.**

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POSITIONS OPEN

ASSISTANT PROFESSOR

Department of Biology—Chemical Communication. Applicants are invited for a tenure-track position. Appropriate research interests include endocrinology, immunology, neurobiology or cell biology with emphasis on the mechanisms of intercellular communication. The successful applicant will be expected to develop an independent research program and participate in the undergraduate and graduate curriculum. The candidate should possess a Ph.D. and 2 years of postdoctoral experience. The application should include a letter indicating the candidate's principal research interests, a curriculum vitae and the names of three references. The application should be sent to: **Dr. R. M. Glantz, Department of Biology, Rice University, P.O. Box 1892, Houston, TX 77251.**

Rice University is an Equal Opportunity/Affirmative Action Employer.

The Department of Biology invites applications for a tenure-track appointment in molecular biology (plant, animal, or microbial) at the ASSISTANT PROFESSOR level, beginning with the 1987–88 academic year. Favorable teaching load; competitive set-up funds. Adjacent new Biotechnology Center under construction. Appointment subject to administrative approval.

Applicant should send curriculum vitae, a statement of research and teaching objectives, and names and addresses of three references by 1 March 1987 to: **Chairman, Molecular Biology Search Committee, Department of Biology, Tulane University, New Orleans, LA 70118.**

UNIVERSITY OF CALIFORNIA (UC), SAN DIEGO

The Department of Psychology at the University of California, San Diego anticipates hiring assistant professors in tenure-track positions. It is expected that employment will begin in the 1987 to 1988 academic year. Although the department is interested in all outstanding candidates in experimental psychology, emphasis will be placed on the following areas: Cognitive science, physiological psychology and neuroscience, developmental psychology, and applied experimental/social psychology. Within each of these areas, we will search for excellence rather than specific area of interest. Candidate must have a Ph.D., preferably in experimental psychology emphasizing one of the above areas. Candidate must be able to conduct independent, publishable research and teach undergraduate and graduate classes in area of specialization. Salary commensurate with qualifications and based on UC pay scale. Please send curriculum vitae, reprints, and names of three referees. Complete applications must be received before 30 January 1987.

Please apply to relevant search committee(s):

Search Committee (Cognitive Science) and/or Search Committee (Physiological and Neurosciences) and/or

Search Committee (Developmental) and/or Search Committee (Applied Social and Experimental)
Department of Psychology C-009
University of California, San Diego
La Jolla, CA 92093

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ASSISTANT PROFESSOR—ANATOMY/HISTOLOGY. Tenure-track position to begin August, 1987. A strong background in anatomy and histology is essential. Ph.D. required; teaching experience desirable. Candidates should send curriculum vitae, transcripts, and three professional references by 6 March 1987 to: **Michael Goodrich, Chairman, Department of Zoology, Eastern Illinois University, Charleston, IL 61920.** *Affirmative Action/Equal Opportunity Employment. Applications from women, minorities and handicapped people are encouraged.*

ASSISTANT PROFESSOR—BIOLOGY DEPARTMENT. School of Arts and Sciences. Tenure-track position beginning fall semester 1987. Responsibilities include teaching any three of the following: genetics, microbiology, molecular biology, and immunology. Ph.D. with teaching experience and a commitment to undergraduate education and research. Send curriculum vitae and the names of three references by 27 February 1987 to: **Dr. John Mechem, Chairperson, Division of Natural Sciences and Mathematics, College of New Rochelle, New Rochelle, NY 10805.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR—ANATOMY

The University Of New England College of Osteopathic Medicine (UNECOM) has a tenure-track position beginning July to September 1987. Ph.D. and proficiency in teaching histology and gross anatomy are required. Some experience in neuroanatomy is an asset. Ongoing research includes developmental neuroscience, biomechanics, computer aided instruction, and neuropharmacology. Send application including curriculum vitae, statement of teaching and research interests, and three letters of reference by 27 February 1987 to: **Anatomy Search Committee, UNECOM Anatomy Department, 11 Hills Beach Road, Biddeford, ME 04005.**

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

BOTANY—The Biology Program at Eastern Oregon State College in La Grande, Oregon, invites applications from broadly trained botanists for a tenure-track position at the ASSISTANT PROFESSOR level to begin in September 1987. Candidate must hold a Ph.D. in some area of botany and possess a strong interest in undergraduate teaching. Courses taught include general botany and plant taxonomy/systematics; special consideration will be given to candidates who also teach courses in plant ecology and/or plant physiology. Please submit curriculum vitae and transcripts, and have three current letters of recommendation sent to: **Dr. Dennis Swanger, Biology Program, Eastern Oregon State College, La Grande, OR 97850,** by 18 February 1987. *Eastern Oregon State College is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF CELL BIOLOGY

Assistant Professor of Cell Biology, **Harvard University School of Public Health.** Expertise in modern cell biology and an interest in respiratory biology and pathology. Competence and publications in some of the following areas: electron microscopy, cell and tissue culture, biochemistry, cell physiology and immunocytochemistry. Responsibilities include independent and collaborative research and teaching. Minimum requirements: Ph.D. or M.D. degree and several years of experience. Applicants should send their curriculum vitae and names of three references to: **Dr. Joseph D. Brain, Department of Environmental Science and Physiology, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115.**

Expression of interest is particularly invited from qualified women and minority candidates.

EAST TENNESSEE STATE UNIVERSITY (ETSU)

ASSISTANT PROFESSOR OF PATHOLOGY: Joint appointment at ETSU and VAMC, full-time, tenured track. Responsibilities include serving as Director of the Autopsy Service at the VA and other practice responsibilities at ETSU. Board qualification/certification required in AP/CP/EP. Opening available 1 January 1987. Send replies to: **Philip S. Coogan, M.D., Professor and Chairman, Department of Pathology, ETSU-COM, Box 19, 540A, Johnson City, TN 37614.** *East Tennessee State University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

POSITION AVAILABLE IN IMMUNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

The Department of Biology and the Center for Cancer Research at MIT seeks applicants for a tenure-track position at the level of **assistant or associate professor.** Candidates should have significant research accomplishments and should be able to develop a creative research program addressing significant problems in contemporary immunology and to participate in the Department's educational activities. Applicants should send curriculum vitae, bibliography, a brief description of research interests, and the names of at least three references to:

**Professor Phillip A. Sharp
Director, Center for Cancer Research
Room E17-113
Massachusetts Institute of Technology
Cambridge, MA 02139**

MIT is an Equal Opportunity/Affirmative Action Employer. Qualified women and members of minority groups are encouraged to apply.

POSITIONS OPEN

The Department of Veterinary Physiology, Pharmacology and Toxicology, Louisiana State University, has a tenure-track position at the rank of **assistant or associate professor** available 15 March 1987. The candidate must have a Ph.D. degree in pharmacology or toxicology. Preference given to candidate with the D.V.M. or equivalent degree with expertise in one of the following areas: aquatic toxicology, neuropharmacology/toxicology, or drug metabolism/toxicokinetics. Duties include teaching toxicology to professional and graduate students, development of a fundable research program, and consultation. The department has excellent facilities, an outstanding equipment base, and enthusiastic faculty. Reply by 1 March 1987 to: **Dr. Charles R. Short, School of Veterinary Medicine, Baton Rouge, LA 70803.** *LSU is an Equal Opportunity Employer.*

The Department of Land, Air and Water Resources, University of California, Davis, announces a position in water management. This is a tenure-track (11-months plus 1 month paid vacation) position of teaching and research. Appointment will be at the **assistant professor** level at a salary commensurate with qualifications.

Qualifications: A doctorate with a strong background in soil and water relationships and processes, skills in mathematical and computer modeling and a demonstrated interest in water management. The appointee will participate with other faculty in teaching and advising at the undergraduate and graduate levels in irrigation management and crop productivity relative to water use.

Applications: Send a statement of research and teaching background and interest; official undergraduate and graduate transcripts; copies of publications, reports, current manuscripts, a summary or abstract of the Ph.D. dissertation; and names, addresses, and telephone numbers of three references by 15 March 1987 to: **T. C. Hsiao, Chair, Water Management Search Committee, Department of Land, Air and Water Resources, University of California, Davis, CA 95616; telephone: 916-752-0691/0453.** It is expected that the appointee will be available for service on 1 September 1987.

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

ASSISTANT/ASSOCIATE PROFESSOR OF BIOCHEMISTRY UNIVERSITY OF ILLINOIS AT CHICAGO COLLEGE OF MEDICINE

The Department of Biological Chemistry is seeking applications for two tenure-track assistant/associate professor positions effective academic year 1987 or later. One position is in the area of eukaryotic or viral gene expression. A second position is in the area of membrane structure and function related to control mechanisms. The department is strong in both areas and is committed to further expansion. We are seeking candidates with a strong commitment to developing an independent research program and teaching in a large medical school environment. Applicants should provide curriculum vitae, at least three letters of reference, and a statement of research interests and plans by 1 April 1987. Send applications for the gene expression position to: **Dr. Robert Storti** and for the membrane control position to: **Dr. Mariano Tao, Department of Biological Chemistry, University of Illinois at Chicago, College of Medicine, 1853 West Polk Street, Chicago, IL 60612.** *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

BEHAVIORAL PSYCHOLOGIST—The Department of Psychiatry, University of Vermont College of Medicine invites applications for a **BEHAVIORAL PSYCHOLOGIST** at the research assistant professor level. The candidate's major responsibility will be to participate in laboratory research in human behavioral pharmacology and drug abuse. The candidate will be expected to apply for and conduct research studies. The candidate will also provide behavioral treatments for our Behavioral Medicine Service and supervise staff and graduate students. Requirements are a Ph.D., training in applied behavioral analysis, behavior therapy, prior research publications and prior acquisition of research grant support. Training in behavioral medicine and drug abuse is desirable. Position available immediately. Deadline for applications is 1 April 1987. Send curriculum vitae to: **John R. Hughes, M.D., Behavioral Medicine Service, Department of Psychiatry, University of Vermont College of Medicine, Burlington, VT 05405.** *The University of Vermont is an Affirmative Action and Equal Opportunity Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR OF BIOCHEMISTRY—TEMPLE UNIVERSITY SCHOOL OF MEDICINE

The Department of Biochemistry has available two tenure-track faculty positions (12-month appointments) beginning in the 1987–88 and 1988–89 academic years. Candidates are expected to develop vigorous, independent, externally funded research programs, and to contribute to teaching of medical and dental students and training of graduate students. Individuals applying molecular biological techniques to fundamental problems in biochemistry will be preferred.

Applicants must hold the Ph.D. or M.D. degree and have postdoctoral training. The rank and salary of appointees will be commensurate with education, training, and experience. Candidates should submit curriculum vitae, a brief summary of plans for their research program, and the names of three people who can be contacted for letters of recommendation to: **Search Committee, Department of Biochemistry, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, PA 19140.** The application deadline is 1 March 1987.

Temple University is an Equal Opportunity/Affirmative Action Employer.

POSITION OPEN—Large interdisciplinary Department of Environmental Health Sciences seeks an **ASSISTANT PROFESSOR IN TOXICOLOGY**. Two to three years of postdoctoral experience in molecular approaches to toxicology preferable, with research in membrane and/or receptor interactions. Submit curriculum vitae, a brief statement of research interests, and names of three references to: **Dr. Robert J. Rubin, Program in Biochemical Toxicology, Division of Experimental Pathology and Toxicology, Johns Hopkins School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, MD 21205.**

ASSISTANT/ASSOCIATE PROFESSOR

The Department of Biochemistry of the University of Massachusetts Medical School invites applications for a state-funded, tenure-track position. All areas of biochemistry and molecular biology will be seriously considered, but preference will be extended to those individuals with research interests in either eukaryotic gene regulation and expression or the physical biochemistry of macromolecules. Please send statement of current and future research, curriculum vitae, and names of four references to: **John E. Mole, Ph.D., Chairman, Search Committee, Department of Biochemistry, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01605.** *An Affirmative Action/Equal Opportunity Employer.*

BACTERIOLOGIST with interest in fundamental host-parasite/microbe-microbe/microbe-environment interactions and/or microbial diversity. Research experience with DNA probe technology, plasmid detection and molecular tagging is desirable. Candidates with training and experience in modern molecular biology will be favored. Ph.D./postdoctoral experience required. Teaching consistent with other science faculty. Start 16 September 1987. Assistant professor, 9-month, tenure-track with possibility of extension to 12-month through Agricultural Experiment Station. Application closing date: 9 March 1987. Send curriculum vitae, transcripts and three letters of recommendation to: **J. L. Fryer, Chairman, Department of Microbiology, Oregon State University (OSU), Corvallis, OR 97331-3804.** *OSU is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.*

ASSISTANT PROFESSOR OF BIOLOGY. Anticipated tenure-track position effective 1 September 1987 for a developmental/molecular biologist. The individual will teach anatomy and physiology to nursing majors, introductory biology, and an advanced course in his/her specialty. The successful candidate must develop a vigorous research program utilizing molecular techniques that involves undergraduate and master's level students. Ph.D. required, teaching, and postdoctoral experience highly desirable. Submit letter of application, curriculum vitae, and three letters of recommendation by 17 February 1987 to: **Dr. Jean M. Werth, Chairperson, Biology Department, Drawer B, William Paterson College, Wayne, NJ 07470.** *William Paterson College is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT RESEARCH SCIENTIST POST-DOCTORAL POSITION available early 1987, for candidate with doctorate in molecular biology, virology or cell genetics to work on research project involving the cloning and characterization of genes regulating cell cycle progression in animal cells; regulation of polyoma virus gene expression in transformed cells; and the study of a novel human oncogene derived from Kaposi's sarcoma DNA. Send curriculum vitae and names of three references to: **Joan Harmon, Personnel Department, New York University Medical Center, 317 East 34 Street, 7th Floor, New York, NY 10016.** *An Affirmative Action/Equal Opportunity Employer M/F.*

CELL BIOLOGIST

The College of Letters and Science, University of California, Davis, invites applications for a tenure-track position at the level of assistant professor, for a cell biologist studying the cytoskeleton. Teaching responsibilities will be at the undergraduate and graduate levels. Send curriculum vitae, a description of research program and future plans, and arrange to have three letters of recommendation sent to:

**Carol Erickson, Chair
Cell Biology Search Committee
Department of Zoology
University of California, Davis
Davis, CA 95616**

This position will remain open until filled, but candidates' dossiers will be considered beginning 1 March 1987. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS DEPARTMENT OF CELL BIOLOGY CHAIRPERSON

Applications are invited for the position of professor and chairperson of the Department of Cell Biology at the University of Texas Health Science Center, Dallas. Candidates must have a distinguished research record and proven leadership and administrative ability. Curriculum vitae and names and addresses of three references should be submitted to the **Chairman of the Search Committee** at the following address: **Alfred G. Gilman, M.D., Ph.D., Chairman, Department of Pharmacology, University of Texas Health Science Center, Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235.** *The University of Texas is an Equal Opportunity Employer.*

CORNELL UNIVERSITY CELL BIOLOGIST/HISTOLOGIST

The Section of Physiology is seeking a highly qualified assistant professor in any area of modern cell biology. The applicant will be expected to develop a strong research program and to teach an upper level undergraduate lecture-laboratory course in histology. The applicants should hold a Ph.D., M.D., D.V.M. or equivalent degree and have postdoctoral experience. Candidates should submit curriculum vitae, including a list of publications, and statements of research interests and teaching experience. In addition, applicants should arrange for three letters of recommendation to be sent by 15 February 1987, 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.

CELL BIOLOGY/IMMUNOLOGY—Tenure-track assistant professor in biological sciences, starting September 1987. We are seeking a competent cell biologist capable of (i) teaching a general cell biology course and a course in immunology, both with laboratory and (ii) developing an active research program in which undergraduates and master's degree candidates can participate. Applicants should have a Ph.D.; postdoctoral experience is recommended. Smith College, an independent liberal arts college for women, provides excellent facilities for research and teaching, and for interaction with colleagues at four neighboring academic institutions. Send curriculum vitae, a statement of teaching and research objectives, and three letters of recommendation to: **Search Committee, Department of Biological Sciences, Smith College, Northampton, MA 01063,** by 30 January 1987. *Smith College is an equal opportunity employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

CELL BIOLOGIST/BIOCHEMIST

The Department of Medicine at Harbor-UCLA Medical Center invites applications for a starting level academic appointment from applicants with a Ph.D. in biochemistry or cell biology with a research interest in gastrointestinal tissue. Harbor-UCLA is a UCLA-affiliated teaching hospital located in the southern part of Los Angeles County. The position will be closely associated with the NIH-sponsored Inflammatory Bowel Disease Center. Previous postdoctoral training preferred. The individual should be expert in cell culture techniques and facile with gel, column, and HPLC separation techniques.

Special expertise in protein biochemistry in order to study activation in intracellular events will be required.

Please send curriculum vitae and three references to:

William J. Snape, Jr., M.D.

Director, Inflammatory Bowel Disease Center
Harbor-UCLA Medical Center
1124 West Carson Street, A-4 Annex
Torrance, CA 90502

CHAIRPERSON DEPARTMENT OF SURGERY

Applications and nominations are invited for the position of Professor and Chairperson of the Department of Surgery at the University of Mississippi Medical Center. The successful candidate should be Board-certified in surgery, have extensive teaching experience, and be an established investigator. This department has teaching responsibilities in several health professional schools, a large residency program, a significant ongoing research program—and a major service commitment to the Center's teaching hospital, Mississippi's principal tertiary care facility. Candidates should submit curriculum vitae and the names of three references by 1 April 1987, to: Dr. Armin F. Haerer, Chairman, Search Committee, c/o The Department of Neurology, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505. *Equal Opportunity Employer, M/F/V/H.*

CLINICAL RESEARCH ASSOCIATE

Ross Laboratories, a division of Abbott Laboratories and the leading producer of infant and medical nutritional products, is seeking an experienced Clinical Research Associate to work in support of our Pediatric Nutritional Research. The appropriate candidate will have a master's degree in nutrition or related field with a minimum of 2 to 3 years practical experience in some phase of clinical research. This person will conduct clinical research projects by developing protocol, visiting research sites, monitoring field research, writing final clinical reports, and publishing findings. In addition, this person will provide consultation services and technical support to the marketing, sales, and the research and development organizations. This assignment is located at our Division Headquarters in Columbus, Ohio. Interested persons should send curriculum vitae in confidence to: Stephen Conway, Division Employment Manager, Ross Laboratories, 625 Cleveland Avenue, Columbus, OH 43216. *An Equal Opportunity Employer M/F.*

CHAIR—DEPARTMENT OF HOME ECONOMICS

Cook College, Rutgers—The State University of New Jersey, 12-month position, professorial rank contingent upon qualifications. Individual will provide scholarly and administrative leadership for the department's undergraduate and graduate teaching and research programs. Candidate must have a strong record of research productivity and securing outside funding. An earned doctorate and strong background in nutrition research is required. Knowledge and appreciation of research in all areas within home economics and sensitivity concerning its role within a land grant university are important. Application deadline: 1 March 1987 or until suitable candidate is found. Send letter of application, vitae, and three references to: Dr. Susan Crane, Department of Home Economics, Douglass/Cook Campus, Rutgers University, New Brunswick, NJ 08903. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

CHAIR, FORESTRY FACULTY, State University of New York (SUNY), College of Environmental Science and Forestry. Minimum two degrees (B.S. or higher) in forestry-related discipline, 2 years of administrative experience, and teaching experience in forestry higher education. Closes 31 March 1987. Call or write for details: Dr. Ralph D. Nyland, SUNY/ESF, Syracuse, NY 13210; Telephone 315-470-6574. *An Equal Opportunity/Affirmative Action Employer.*

DEVELOPMENTAL BIOLOGIST Cornell University

Faculty of the Section of Genetics and Development of the Division of Biological Sciences at Cornell University are seeking a colleague, at the ASSISTANT PROFESSOR level, working on the development of mammals. Areas of interest include, but are not limited to, molecular aspects of gene regulation, pattern formation, or immunogenetics. Candidates should have postdoctoral experience before the appointment date, an active research program, and an interest in participating in undergraduate and graduate teaching. Applications will be reviewed beginning 15 February 1987 and continue until an appointment is made. The successful candidate will join the group on or after 1 July 1988. Applications should include curriculum vitae, a statement of proposed research objectives, and three letters of recommendation. Applications, letters, and inquiries should be directed to: Dr. Antonie W. Blackler, Genetics and Development, Emerson Hall, Cornell University, Ithaca, NY 14853.

Cornell University is an Affirmative Action/Equal Opportunity Employer.



Xytronyx, Inc.

DIRECTOR, PROTEIN CHEMISTRY

Experience in protein purification and modification and enzymology, to direct the company's program in protein chemistry and to interface with the molecular biology division. Experience with DNA enzymes and/or enzymes used for signal detection desirable.

The Company is competitive in health care and fringe benefits. In addition there are other excellent incentives for company employees.

Please send résumés and two letters of reference to:

Director of Personnel
Xytronyx, Inc.
6555 Nancy Ridge Drive
Suite 200
San Diego, CA 92121

DIRECTOR, ONCOLOGY CENTER

The Johns Hopkins University School of Medicine and The Johns Hopkins Hospital are seeking a physician-scientist to lead our Department of Oncology, which is also a Comprehensive Cancer Center. Applicants should have evidence of leadership qualities and demonstrated outstanding abilities in research and teaching as well as the capability to direct the service missions of the Center.

Please send letter of application, curriculum vitae and bibliography to: Dr. Richard J. Johns, Chairman, Oncology Search Committee, 720 Rutland Avenue, Baltimore, MD 21205.

An Affirmative Action/Equal Opportunity Employer.
Deadline date for submission: 1 March 1987.

THE NATIONAL HELLENIC RESEARCH FOUNDATION

Applications are invited for the position of the Director of the Institute of Organic Chemistry. The candidates should be Greek nationals. They should be internationally known in the field of Organic Chemistry with current research work in synthetic organic chemistry or in pharmaceutical synthesis and spectroscopy.

Complete curriculum vitae and one copy of their publications to be sent to: the Managing Director, National Hellenic Research Foundation, Vas. Constantinou Avenue 48, 116 35 Athens, Greece, by 31 January 1987 (closing date).

POSITIONS OPEN

ELECTRON MICROSCOPIST—We are seeking an individual with an M.S. in a relevant biological science and a minimum of 3 years of experience to supervise a modern electron microscopy service laboratory at a major university health sciences center. The position requires a thorough knowledge of TEM and SEM techniques as well as managerial skills. Special consideration will be given to candidates with experience in autoradiographic and/or immunocytochemical techniques. Send résumé and names of three references to: Texas Tech University Health Sciences Center (TTUHSC), Personnel Department, 4th and Indiana, Lubbock, TX 79430, or telephone: 806-743-2878.

TTUHSC is an Equal Employment Opportunity/Affirmative Action Employer.

DEVELOPMENTAL NEUROGENETICS. Postdoctoral position available to join multidisciplinary project examining gene control of neuronal excitability and synaptic plasticity in developing CNS. Major interest in cellular expression of spontaneous and transgenic mutations causing neurological disorders in mice. Strong experience in cellular neurophysiology, immunocytochemistry, or molecular neurogenetics required. Excellent salary. Send letter of intent, curriculum vitae, and names of two references to: Dr. Jeffrey L. Noebels, Department of Neurology/Section of Neurophysiology, Baylor College of Medicine, One Baylor Plaza, Houston, Texas 77030. *Affirmative Action/Equal Opportunity Employer.*

DEVELOPMENTAL GENETICS

Tenure-track position at the assistant professor level, available August 1987. The person filling this position is expected to develop a vigorous research program in the genetic aspects of development. Preference will be given to applicants whose interests complement those of a faculty with strength in environmental biology and whose research will permit collaborative training opportunities at the graduate level. The successful candidate will also have a strong commitment to teaching in both the core and advanced undergraduate curricula. Ph.D. in a biological science required and postdoctoral experience preferred. Curriculum vitae, statement of research and teaching interests, representative publications and three letters of reference should be sent by 2 March 1987 to: Dr. Peter L. Starkweather, Chair, Department of Biological Sciences, University of Nevada, Las Vegas, Las Vegas, NV 89154. *The University of Nevada is an Affirmative Action/Equal Opportunity Employer.*

EMINENT SCHOLAR IN APPLIED ECOSYSTEM ECOLOGY DEPARTMENT OF ZOOLOGY

The Department of Zoology of Miami University seeks applications and nominations for an Endowed Professorship in Applied Ecosystem Ecology funded recently by the State of Ohio and Miami University.

Applicants must be recognized leaders in ecosystem ecology. He/she is expected to conduct research at the ecosystem level and to interact with a group of 11 ecologists working in basic and applied ecology (for example, agroecosystem ecology, ecotoxicology, aquatic ecology, behavioral ecology). In addition to engaging students in research, the eminent scholar will offer an advanced course in systems ecology. It is anticipated that the incumbent will interact with state and federal agencies in developing public policy on environmental issues.

The person selected will receive a tenured, full professor appointment on a 9-month basis. Additional salary may be obtained from grants/contracts. Space will be provided in the new Biological Sciences Building and at the Ecology Research Center. A competitive salary and fringe benefits package is available, along with a one-half time secretary and a postdoctoral position funded for 2 years.

A curriculum vitae, three letters of recommendation, and a brief description of projected scholarly activities for the next 5 to 10 years should be sent to: R. G. Sherman, Chair, Department of Zoology, Miami University, Oxford, OH 45056.

Inquiries regarding this position are encouraged. Letters should be addressed as above; telephone inquiries to: 1-513-529-3100. Applications will be considered until the position is filled; however, the Search Committee will begin to review applications on 2 February 1987. *Miami University is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

DIRECTOR UNIVERSITY OF TENNESSEE (UT) OAK RIDGE GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

UT/Oak Ridge Graduate School of Biomedical Sciences invites persons of established scientific stature to apply for the position of director. This program enjoys school status within the University of Tennessee, Knoxville (UTK), and support from Oak Ridge National Laboratory (ORNL). The school is located within the ORNL Biology Division and has access to resources of this major federal laboratory. Major research strengths include molecular and mammalian genetics and carcinogenesis. This 20-year-old program involves 30 faculty and 40 graduate students, most at the Ph.D. level. Responsibilities of the position include administration of the school and continuation of an active research program. The appointment will be at the full professor level, tenurable through a life sciences department at the university. Send letter of interest and résumé by 1 March 1987 to: Associate Dean H. McSweeney, 226 Ayres Hall, University of Tennessee, Knoxville, TN 37996. *UT is an Equal Opportunity/Affirmative Action Employer.*

THE UNIVERSITY OF CALGARY FACULTY POSITIONS

The University of Calgary, Faculty of Medicine, invites applications for faculty positions at the assistant professor level in the Cell Regulation Group. Applicants should be individuals wishing to investigate mechanisms of signal transduction involving guanine nucleotide binding proteins (G proteins). Applicants must have Ph.D. and/or M.D. degree(s) with at least 2 years of postdoctoral experience, and have demonstrated outstanding ability for independent research. Candidates will be required to obtain a competitive renewable scholarship award from the Alberta Heritage Foundation for Medical Research. The successful candidates will be entitled to all of the rights and privileges of a full-time faculty member. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Please submit curriculum vitae, a two- to three-page outline of future research goals and the names of three referees prior to 15 March 1987 to: Dr. D. L. Severson, Chairman, Cell Regulation Group, Faculty of Medicine, The University of Calgary, 3330 Hospital Drive NW, Calgary, Alberta, T2N 4N1, Canada.

ENDOTHELIAL CELL BIOLOGIST—The Milwaukee Heart Research Foundation is supporting development at Mount Sinai Medical Center of a totally implantable artificial heart. We are seeking a cell biologist (M.D./Ph.D.) with experience in endothelial cell biology to direct a major project in the Artificial Heart Program focused on endothelializing the luminal surfaces of the artificial heart prior to implantation. In addition, the candidate will be encouraged to develop an independent research program in a related area. Excellent opportunities exist for collaboration with hemostasis and cardiology research groups at the Medical Center. The position will include a tenure-track appointment at the University of Wisconsin Medical School—Milwaukee Clinical Campus (MSMC). Send curriculum vitae and a statement of research and career interests to: Michael W. Mosesson, M.D., Coordinator for Academic Affairs, University of Wisconsin Medical School—Milwaukee Clinical Campus, Mount Sinai Medical Center, 950 North 12 Street, Milwaukee, WI 53233. *MSMC is an Equal Opportunity/Affirmative Action Employer.*

ENDOCRINOLOGY AND METABOLISM FELLOW: RESEARCH ASSOCIATE in academic setting of endocrinology and metabolism disorders (i.e., diabetes, thyroid disease, obesity, bone-related disorders); train and supervise students, internists and researchers; review and present research; 5 days, 40 hours per week; \$23,004 per year; M.D. in medicine, plus 3 years in job or 3 years as medical practitioner in internal medicine; DOT 090-227-010, J.O. No. TN4440055; résumé to: Jack Hiltzheim, Tennessee Job Service, 1295 Poplar, Memphis, TN 38104.

POSITIONS OPEN

ENVIRONMENTAL SPECIALIST IV

Ecosystem Modeler: Expertise in mechanistic modeling of aquatic ecosystems required. Ph.D. preferred. Annual salary range of \$26,430 to \$39,645. New employees typically start at the minimum and progress through the salary range due to annual merit raises.

Please send all résumés to: St. Johns River Water Management District, Office of Employee Relations, P.O. Box 1429, Palatka, FL 32078-1429.

Equal Opportunity/Affirmative Action Employer.

EXTENSION TOXICOLOGIST—(Headquarters: Riverside Campus): The University of California, Division of Agriculture and Natural Resources, Cooperative Extension is seeking a career-track academic candidate who will provide expertise in dealing with problems of agriculture in environmental toxicology and pollution and the extension of educational programs. A minimum of Ph.D. or equivalent combination of education and experience in toxicology plus strong background in analytical chemistry; a minimum of 2 years of experience required, agricultural experience helpful. Assume affirmative action in development and delivery of programs. Salary in the associate specialist rank. Contact: Cooperative Extension Personnel, 6th Floor, 2120 University Avenue, Berkeley, CA 94720; telephone: 415-644-4320. Close 6 March 1987. Refer to #A-86-151. *Affirmative Action Equal Opportunity Employer M/F/H.*

FACULTY POSITION

The Department of Biological Sciences, St. John's University, New York, seeks energetic candidates for two tenure-track positions with expertise in molecular, cell, developmental biology or biotechnology. Rank and salary are open and depend on qualifications. Postdoctoral experience and evidence of good research productivity are required. Successful applicants will be expected to conduct an externally funded research program and to teach a course in their specialties in the doctoral program. Candidates should submit curriculum vitae with a list of publications, a brief statement of research interests, and names of at least three references by 8 February 1987, to: Dr. Richard A. Lockshin, Chair, Department of Biological Sciences, St. John's University, Jamaica, NY 11439.

An Equal Opportunity Employer—M/F

FACULTY POSITIONS IN NEUROSCIENCE

Two **TENURE-TRACK POSITIONS AT THE ASSISTANT PROFESSOR LEVEL** are available in the newly formed Department of Behavioral Neuroscience at the University of Pittsburgh, to begin September 1987. The research of current faculty members focuses on a variety of areas in neuroscience, including neuroplasticity of catecholaminergic systems, the neurobiological bases of ingestive, reproductive and learned behaviors, mechanisms governing synthesis and release of neurotransmitters and neurohormones, biophysical membrane properties of nerve cells, pharmacological characteristics of retinal neurons, and mathematical modeling of neuronal networks. Applicants from all areas of basic and clinical neuroscience are invited to apply, though special attention will be given to those studying problems at the cellular and molecular levels, including those related to neurotransmitter biosynthesis, receptors and second messenger systems, and ion channels. All applicants should have at least 2 years of postdoctoral experience. Send curriculum vitae, three letters of recommendation and a description of current and future research programs to: Search Committee, Department of Behavioral Neuroscience, 479 Crawford Hall, University of Pittsburgh, Pittsburgh, PA 15260.

FOREST BIOGEOCHEMISTRY. Postdoctoral position to study sulfur dynamics with isotopes in manipulated watersheds. A Ph.D. and expertise in quantitative elemental analyses of ecosystems required. Salary \$23,000. Submit application, curriculum vitae, and transcripts, and have three letters of recommendation forwarded by 28 February 1987 to: Dr. M. J. Mitchell, SUNY-CESF, Syracuse, NY 13210. *SUNY is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

FACULTY POSITION DEPARTMENT OF PATHOLOGY THE UNIVERSITY OF CHICAGO

The Department of Pathology of The University of Chicago invites applications for a research and teaching position as assistant professor or associate professor of pathology. Independent investigators with the M.D. or Ph.D. will be considered. Strong preference will be given to applicants with training, experience, and interests in cardiovascular pathophysiology, focusing on the cell biology of the arterial wall and its matrix components. Participation in service pathology is optional. Applicants should write to: G. S. Getz, Department of Pathology, The University of Chicago, 5841 South Maryland Avenue, Chicago, IL 60637, providing curriculum vitae, bibliography, a brief statement of research interests and the names of at least three references. *The University of Chicago is an Affirmative Action Equal Opportunity Employer.*

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

FACULTY POSITIONS IN NEUROBIOLOGY UNIVERSITY OF TEXAS MEDICAL SCHOOL AT HOUSTON

The Department of Neurobiology and Anatomy is embarking upon an effort to recruit eight new faculty members. One focus of the recruiting effort will be in the area of neuronal plasticity with a particular emphasis on learning and memory. Preference will be given to appointments at the level of assistant professor, but some appointments at the level of associate professor will also be considered.

These are tenure-track positions with state-supported hard-money salaries. In addition, exceptional laboratory facilities and start-up funds and highly competitive salaries are available to outstanding individuals who intend to develop a strong, independent research program.

Those who wish to be considered should send curriculum vitae, names of four references, and a brief description of their research interests to: Dr. John H. Byrne, Chairman, Department of Neurobiology and Anatomy, University of Texas Medical School at Houston, P.O. Box 20708, Houston, TX 77225.

An Equal Opportunity Employer. Women and minorities are encouraged to apply.

LECTURER SCIENCE AND MATHEMATICS EDUCATION UNIVERSITY OF CALIFORNIA, BERKELEY

The Graduate Group in Science and Mathematics Education seeks a full-time, nontenure-track lecturer to teach the areas of: learning, understanding, and teaching of science and mathematics; and qualitative and/or experimental methodologies for exploring such issues. Required: doctoral degree in biological or physical sciences or mathematics, or field related to science or mathematics education; research background and interests. Appointment for 1 year, beginning 1 August 1987 (renewal possible up to 3 years). Salary: \$28,000 to \$35,000. Send inquiries or qualifications, curriculum vitae, names of three references by 1 March 1987 to: SESAME Search Committee, c/o Helen Clifton, School of Education, University of California, Berkeley, CA 94720. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

SENIOR RESEARCH BIOCHEMIST

The Ferrosan Research Division in Copenhagen, Denmark is seeking candidates for senior research biochemist position in the department of receptor neurochemistry. The Ferrosan Research Division is an innovative organization with a strong commitment to CNS-research. Main areas of research are for the moment the GABA/benzodiazepine receptor complex and excitatory amino acids.

The successful candidate will join a research team dedicated to CNS drug development applying the most modern techniques. Furthermore, the position offers possibilities of undertaking basic research aimed at future drug discoveries in interdisciplinary teams.

The requirements of the position include:

- Ph.D. or equivalent in biochemistry or related discipline with an emphasis on mammalian receptor research.
- Minimum of 2 years' post doctoral experience in autoradiographic investigations of CNS-receptors, measurement of energy metabolism in the brain by the deoxyglucose technique and/or CNS-histology.

Please direct applications to:

Dr. T. Honore
Director of Biochemistry
A/S FERROSAN RESEARCH DIVISION
5, Sydmarken
DK-2860 Soeborg,
Denmark.
Phone +451 692111, ext. 242.

RESEARCH SCIENTISTS (Pharmacology)

Ayerst Laboratories, a growing subsidiary of Fortune 100 American Home Products Corporation, has challenging opportunities available at our state-of-the-art research facility in central New Jersey in these areas:

PULMONARY PHARMACOLOGY: Experienced BS/MS person to join a developing pulmonary program. Applicant should possess knowledge of the mechanisms by which drugs affect the lung, and have specific knowledge and experience in the methodologies associated with measurements of pulmonary mechanics in both small and large animal models. Experience in the measurement of inflammatory mediators and/or cyclic nucleotides would be considered an additional asset. RESPOND TO DEPT. DG.

CARDIOVASCULAR PHARMACOLOGY: Experience in characterizing the renal and cardiovascular effects of drugs in animals is required. Knowledge and experience with animal models of reperfusion injuries a plus as is ability to quantify such injuries. Experience with conscious as well as anesthetized animals advantageous. Computer knowledge essential and statistics beneficial. RESPOND TO DEPT. DA.

A minimum of a B.S. Degree in Life Sciences or related biological discipline (or equivalent experience) is required for these positions, along with at least one year of pharmacology laboratory experience.

We offer excellent salaries and outstanding benefits. Interested candidates should send a resume indicating their current salary earnings and position of interest to:

Personnel Manager

Ayerst

**AYERST LABORATORIES
RESEARCH, INC.**

**CN 8000
Princeton, NJ 08543-9990**

Equal Opportunity Employer M/F/H

CHIEF OF STAFF

Position available with the Cuyahoga County Hospital System (CCHS) as Chief of Staff for facilities that include Cleveland Metropolitan General and Highland View Hospitals, Sunny Acres Skilled Nursing Facility and the Kenneth Clement Family Health Care Center. As a major teaching institution of more than 1,000 beds affiliated with Case Western Reserve University (CWRU) Schools of Medicine and Dentistry, CCHS emphasizes educational and research activities. It supports a 700-member faculty (300 full-time) and provides training to 243 resident positions and 42 post-doctoral physician fellows each year. Forty % of CWRU medical students are routinely placed in core clinical clerkships at CCHS.

The Chief of Staff provides direction for medical affairs of the Hospital System, including patient care, teaching and research activities. The scope of this position's responsibilities extends from daily operations to long range planning. The successful candidate will be a physician with strong academic credentials supportive of appointment to the rank of full professor at CWRU, and with demonstrated leadership and administrative skills. Salary and accompanying benefits are competitive, with an exceptional retirement package.

Curriculum vitae and letters of interest should be submitted by February 16, 1987 to: **Trina Anglin, M.D., Ph.D., Chairperson, Chief of Staff Search Committee, Cleveland Metropolitan General/Highland View Hospital, 3395 Scranton Road, Cleveland, Ohio 44109.** CCHS is an Equal Employment Opportunity Employer.

DEAN SEARCH SCHOOL OF HEALTH SCIENCES Oakland University Rochester, Michigan

Applications and nominations are invited for the position of dean of the School of Health Sciences. The school offers academic programs in medical physics, physical therapy, medical laboratory sciences (cytotechnology, histotechnology, medical technology and nuclear medicine technology), health behavioral sciences, industrial health and safety and exercise science.

The successful applicant must possess an earned doctorate in allied or public health, the basic sciences or medicine; a record of scholarly achievement and teaching suitable for appointment at the rank of professor; and extensive administrative experience at the school, college or university level involving multidisciplinary faculty. Applicants should also have a record of creative service to the academic community, proven ability to work effectively with medical, scientific and health community leaders, demonstrated budgetary and fiscal management skills, success in external funding and in developing and operating joint instructional and research programs with external agencies.

The dean will provide overall leadership for program planning and implementation, faculty development and cooperation with community, health and medical institutions. The dean will also be responsible for the quality of all teaching, research and community service, and for school decisions related to faculty development, budget development, resource allocation, facilities and equipment.

The position is available immediately. The deadline for applications is March 2, 1987.

A complete position description and supporting information on the School of Health Sciences and Oakland University will be furnished to each interested party.

Applications should include a current resume and a list of at least three references. Send applications and nominations to:

George Dahlgren, Vice Provost
Oakland University
Rochester, MI 48063
(313) 370-2194

Oakland University is an equal opportunity and affirmative action employer.

DEAN, COLLEGE OF SCIENCES

The University of Southwestern Louisiana invites applications for the position of Dean of the College of Sciences. The Dean is the chief administrative officer of the College, which enrolls 1,026 undergraduate and 355 graduate students, and has 145 faculty members. The College consists of the departments of Biology, Chemistry, Computer Science, Mathematics, Microbiology, Physics, and Statistics. Every department in the College awards both B.S. and M.S. degrees and the Ph.D. is awarded in four of the areas. The University, with a 1986 fall enrollment of 15,700, consists of the Colleges of Agriculture and Home Economics; Arts, Humanities, and Behavioral Sciences; Business Administration; Education; Engineering; Nursing; Sciences; and General Studies; the School of Art and Architecture and the Graduate School.

Candidates should have an appropriate earned doctorate, an established record of excellence in undergraduate and/or graduate teaching and research, and show evidence of successful administrative experience. Applications should include a detailed resume, three current letters of recommendation, and supporting materials. The closing date for the receipt of all application materials is February 16, 1987. Employment date is July 1, 1987 and the salary is competitive. All applications should be sent to:

Chairman, Q-S-N Committee, College of Sciences
The University of Southwestern Louisiana
P.O. Box 41810
Lafayette, LA 70504

U.S.L. is An Equal Opportunity, Affirmative Action Employer

POSITIONS OPEN

GENETICIST UNIVERSITY OF ILLINOIS

The School of Life Sciences, University of Illinois at Urbana-Champaign invites applications for a faculty position at the associate professor level. We are seeking a person who is an accomplished geneticist well versed in the modern approaches of molecular and cellular biology. The academic and research record should have a record of sustained significant and innovative research activity in genetic research. A major duty of the successful applicant will be the coordination of the campus-wide graduate genetics program. This administrative responsibility will be balanced by decreased teaching responsibilities. The departmental affiliation of the successful applicant within the School of Life Sciences will depend upon the specific interests of the applicant. Starting date is open. Send résumé and names of three references to: **Professor J. Cronan, School of Life Sciences, University of Illinois, 393 Morrill Hall, 505 South Goodwin Avenue, Urbana, IL 61801.** To receive full consideration, applications should be received by 6 February 1987. *The University of Illinois is an Affirmative Action, Equal Opportunity Employer.*

MATERNAL-FETAL MEDICINE

Hennepin County Medical Center and the University of Minnesota seek a **FACULTY MEMBER** to teach and conduct research in Maternal-Fetal Medicine. Candidates must have 6 years post M.D., board qualified or certified in Maternal-Fetal Medicine will be considered at the assistant professor level. Recruiting deadline is 30 April 1987.

Hennepin County Medical center and the University of Minnesota are Equal Opportunity Employers and specifically invite and encourage applications from women and minorities.

Address inquiries to:

Bruce A. Work, Jr., M.D.
Professor and Head
Obstetrics and Gynecology
University of Minnesota
Box 395 UMHC
420 Delaware Street S.E.
Minneapolis, MN 55455

MOLECULAR BIOLOGIST: The Department of Biological Sciences, Loyola University, is seeking applications for a tenure-track assistant/associate professor position beginning August 1987. Applicants must have a Ph.D. with teaching and research experience in cellular/molecular biology. The successful candidate must be strongly committed to undergraduate teaching and research and is expected to develop an externally funded research program in an area of molecular biology. Applicants should be able to teach a course in cellular and molecular biology, and one or more of the following courses: zoology, botany, histology, anatomy and physiology, immunology. Faculty members are expected to supervise research of advanced undergraduates and master's candidates. Salary commensurate with experience. Send curriculum vitae, official transcripts, recent publications, and three letters of reference to: **Dr. J. M. Upadhyay, Chairman, Department of Biological Sciences, Loyola University, P.O. Box 104, New Orleans, LA 70118.** Application deadline 1 March 1987. *An Equal Opportunity/Affirmative Action Institution.*

MOLECULAR IMMUNOLOGY DEPARTMENT OF MICROBIOLOGY UNIVERSITY OF VIRGINIA


Applications are invited for a tenure-track position in molecular immunology at the assistant or associate professor level. Position will include joint appointments in the Immunology Program and Cancer Center. Candidates will be expected to maintain an active, independent research program, and to engage in limited teaching of graduate and medical students. The Department offers a stimulating environment, including well-equipped facilities, and well-funded graduate and postdoctoral training programs. Applicants should submit curriculum vitae, a statement of current research activities and future plans, and the names of three people from whom letters of recommendation can be requested to: **Dr. Robert R. Wagner, Chairman, Department of Microbiology, University of Virginia School of Medicine, Box 441, Charlottesville, VA 22908.**

An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MOLECULAR PHARMACOLOGIST: The Department of Physiological Sciences, College of Veterinary Medicine, Oklahoma State University, invites nominations and applications for a tenure-track position in molecular pharmacology. Candidates must have a Ph.D. or equivalent degree in pharmacology, toxicology, or biochemistry with emphasis on mechanisms of pharmacologic action at the molecular level. A D.V.M. is desirable. Candidates should have interest and abilities in teaching veterinary and graduate students and able to contribute to a multidisciplinary team approach to animal production and biomedical problems. Appointment at the assistant or associate level and salary will depend on experience in teaching and research. Send nominations, applications, or inquiries to: **Dr. Subbiah Sangiah, Chairman, Search Committee, Physiological Sciences, Oklahoma State University, Stillwater, OK 74078.** Applications should include curriculum vitae, names of three references, a summary of academic and research experiences, and a statement of career goals. To assure full consideration, applications should be received by 1 March 1987. Appointment is planned for 1 May 1987, or as soon thereafter as possible.

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



ORGANIC CHEMIST PergaBase (a member of the Pergamon Group) is a new information company based in Washington, DC, offering chemical information services to major corporations and libraries. Growth position is available for an organic chemist to market, support, and develop these new services. Position requires Ph.D. or equivalent with a minimum of 5 years in the chemical industry. Frequent travel necessary. Send résumé and salary history to: **PergaBase, Inc., 1340 Old Chain Bridge Road, McLean, VA 22101.**

MOLECULAR VIROLOGIST

The Oregon Regional Primate Research Center has an opening for a Ph.D. virologist with training and experience in molecular biology. The core-funded appointee will interact with two pathologists, two immunologists, and clinical veterinarians studying immunocompromising retrovirus infections endemic in several primate species and will be expected to develop an active research program, which need not be limited to retroviruses. The appointee will assist in the management of viral diseases in the animal colonies. Joint academic opportunities are available at the nearby Oregon Health Sciences University, Portland, Oregon. The level of appointment will be contingent on the applicant's qualifications, with advanced levels requiring a strong record of publication and grant support. Applicants should submit curriculum vitae and four professional references by 1 March 1987 to: **Wilbur P. McNulty, M.D., Chair, Search Committee, Oregon Regional Primate Research Center, 505 NW 185th Avenue, Beaverton, OR 97006.** Telephone: 1-503-645-1141. *The Oregon Regional Primate Research Center is an Equal Opportunity Affirmative Action Employer.*

MOLECULAR BIOLOGIST Bacterial Genetics Group Advanced Genetic Sciences, Inc. 6701 San Pablo Avenue Oakland, CA 94608

Research directed towards an understanding of bacterial ice nucleation. For background see *Nucleic Acids Res.* 14, 8047; *PNAS* 83, 7256; *EMBO J.* 5, 231. Applicants should hold a Ph.D. in a branch of molecular biology, or have equivalent postdoctoral experience. Salary and level of appointment commensurate with experience. Send curriculum vitae and names, addresses and phone numbers of three referees to: **Dr. Gareth Warren** at the above address.

POSITIONS OPEN

MANAGER FOR NMR IMAGING AND SPECTROSCOPY

The Pittsburgh NMR Center for Biomedical Research (under the auspices of Carnegie-Mellon University (CMU) and the University of Pittsburgh (Pitt)) is looking for an operations manager. The center has a Bruker 4.7-T NMR system with a 40-cm bore-size superconducting magnet for multinuclear NMR imaging and in vivo spectroscopic studies using animal models. This facility is housed in the Mellon Institute and has additional facilities for high-speed computing, the building and maintaining of electronics equipment, surgery, and the housing of animals. The operations manager should have a Ph.D. in physics or chemistry or the equivalent experience, a good knowledge of NMR theory and techniques and their application to NMR imaging and to biomedical science. Especially desirable would be previous experience with Bruker NMR spectrometers and imagers, and previous managerial experience in a University environment. The manager will supervise several NMR spectroscopists and an electronics engineer, and should have good communication skills to interact with users of the facility (M.D.'s, biologists, chemists, physicists, engineers, and computer scientists) as well as participating in the teaching of the use of the Center's NMR instrument and the application of NMR to biomedical sciences. This is a staff appointment and salary depends on experience and qualifications. Interested persons should send curriculum vitae and the names of two or three references to: **Ms. Cynthia J. Davis, Pittsburgh NMR Center for Biomedical Research, Mellon Institute, Carnegie-Mellon University, 4400 Fifth Avenue, Pittsburgh, PA 15213.** All applications should be submitted by 28 February 1987. *CMU and Pitt are Affirmative Action/Equal Opportunity Employers.*

THE AUSTRALIAN NATIONAL UNIVERSITY. NEUROPHYSIOLOGIST / BIOPHYSICIST. Applications are invited from suitably qualified men and women for appointment to the position of **POSTDOCTORAL FELLOW, EXPERIMENTAL NEUROLOGY UNIT, THE JOHN CURTIN SCHOOL OF MEDICAL RESEARCH.** An opportunity exists for a neurophysiologist/biophysicist to work on spinal cord/cerebral cortex function in mammals. The appointee will work in collaboration with **Professor R. Porter** on the neurophysiological basis of control of movement performance in primates and may also develop research in other aspects of motor function in mammals. The studies in the Experimental Neurology Unit are concerned with mammalian neurophysiology and biophysics of mammalian nerve cells and their synaptic interactions. These studies are relevant to the understanding of the functions of the brain and to the development of strategies for rehabilitation after nervous system damage or disease in man. Excellent facilities for neurophysiological investigations and for computer analysis of neurophysiological data exist. Closing date: 20 February 1987. Ref. JC 18.12.1. Salary will be in accordance with qualifications and experience within the range: Postdoctoral Fellow Grade 1 (at a fixed point) A\$24,013 to A\$27,507 per annum. Appointment will be normally 2 years, with the possibility of extension to maximum of 3 years. Superannuation, maternity leave, and assistance with travel 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.*

POPULATION BIOLOGY. Position at postdoctoral or junior faculty level for full-time quantitative theoretical, experimental, or field research in **ecology, demography, epidemiology, evolution, population genetics, public health, applied stochastic processes,** or other basic or health-related aspects of populations. Demonstrated ability in mathematics or statistics required. Current research of the Laboratory of Population concerns community food webs, age-structured populations, malaria, competing risks, and malathion resistance in flour beetles. Position starts March or September 1987 and is renewable. Send curriculum vitae, brief description of research interests and major accomplishments, and names, addresses, and telephone numbers of four references to: **Joel E. Cohen, Rockefeller University, 1230 York Avenue, Box 20, New York, NY 10021-6399.** *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIPS

THE WEIZMANN INSTITUTE OF SCIENCE Rehovot, Israel

The Feinberg Graduate School of the Weizmann Institute of Science is now offering Postdoctoral Fellowships in the following fields of study:

| | |
|--------------------------------|-------------------------|
| Biology | Physics |
| Chemistry | Mathematics |
| Biochemistry-Biophysics | Science teaching |

These Fellowships are intended for young scientists who have recently received a Ph.D. degree.

The fellowship provides a 12-month stipend (with COL adjustments), a relocation allowance and airfare to Israel. If the Fellowship is renewed for a second year, return airfare is provided.

Application forms and additional information may be obtained from

**The Feinberg Graduate School
The Weizmann Institute of Science
Rehovot, 76100 Israel**

Applications are reviewed twice each year:
January 1 and May 15

THE WEIZMANN INSTITUTE OF SCIENCE OPENINGS FOR SCIENTISTS

The Weizmann Institute of Science is now offering a limited number of temporary appointments to the position of Scientist.

Candidates must have completed two years of post-doctoral work.

Appointments will be made in all the areas of scientific research at the Institute:

| | |
|--------------------------------|-------------------------|
| Biology | Physics |
| Chemistry | Mathematics |
| Biochemistry-Biophysics | Science teaching |

Appointments are for a period of one year, however, they may be extended for a period not to exceed 5 years from receipt of Ph.D. degree (or equivalent). Successful appointees will be eligible to apply for promotion to the position of Senior Scientist.

Financial remuneration for a Scientist is at the level of Lecturer and includes all of the associated benefits. In addition, a relocation stipend is provided.

Application forms and additional information may be obtained from

**The Feinberg Graduate School
The Weizmann Institute of Science
Rehovot, 76100 Israel**

Applications are reviewed twice each year:
January 1 and May 15

RESEARCH SCIENTIST

WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

Applications are invited to fill vacancies in the Laboratories for Virology. Candidates with a Ph.D. and postdoctoral experience in areas relevant to the pathogenesis of viral agents and with the ability to initiate an independent basic research program are invited to apply. The specific area of research is open but should preferably be directed towards viruses of public health interest (HIV or other retroviruses, parvoviruses, etc.) and should complement existing independent research programs on mechanisms of pathogenesis in the Laboratories for Virology and other groups for molecular biology, immunology, and genetics. The record should indicate an ability to interact with scientists in related fields. The appointee is expected to be available as consultant to the department in the areas of his/her experience.

Interested persons should submit a resume including a description of experience, list of publications and individuals who may be contacted for letters of reference. Send applications to **Dr. Rudolf Deibel, Wadsworth Center for Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, NY 12201. An equal opportunity/affirmative action employer.**



Yale UNIVERSITY

CELL BIOLOGIST (Emphasis on the Neuron)

The Department of Biology at Yale University wishes to appoint an Assistant Professor with an established research interest in cell biology related to the development or function of the nervous system. The successful applicant should conduct a vigorous research program, teach effectively at the undergraduate and graduate levels and interact with a group of biologists working on non-muscle cell motility, neurobiology and development. Send curriculum vitae, description of research interests and names of at least three references to:

**Chairman, Department of Biology
Yale University
P O Box 6666
New Haven, CT 06511**

Yale University is an equal opportunity/affirmative action employer. Women and members of minority groups are especially urged to apply.

Integrated Genetics, Inc., a recognized leader in biotechnology, develops therapeutic and diagnostic products for the health-care industry in a challenging and stimulating scientific environment. Our continuing success leads to these new opportunities.

STAFF SCIENTISTS

Protein Chemistry

Join our group involved in protein structure determination and further develop sequencing and amino-acid analysis technologies. Requirements are a PhD and at least 2 years' direct experience in a protein sequencing facility using gas phase sequencers, HPLC, and state-of-the-art amino acid analysis techniques.

Genetic Diseases

Evaluate current knowledge in the area of cardiovascular risk markers and identify the probable important loci. A PhD or equivalent experience in Molecular Biology, and/or Epidemiology is required. Computer data analysis or mathematical modeling experience desirable.

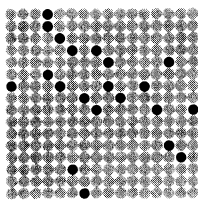
LABORATORY SERVICES MANAGER

Manage a new group providing laboratory services for our research teams. Services include DNA Synthesis, DNA Sequencing, computing, development and routine running of immunoassays, small animal facility, regulatory science, and general lab management including budgets and cost control. Requirements are strong management skills and 5-10 years' industrial experience running laboratory services for the above areas. A PhD in Molecular Biology/Biochemistry is desirable.

Integrated Genetics offers an attractive compensation and benefits package, including equity participation. For immediate consideration, send your resume to: David Nikka, Human Resources, Dept. S19, Integrated Genetics, Inc., 31 New York Avenue, Framingham, Massachusetts 01701.

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CHIRON
CORPORATION

Chiron, a recognized leader in the biotechnology industry, has several positions available immediately. These offer outstanding opportunities for qualified Ph.D. scientists.

Postdoctoral fellowship in viral expression systems. A successful candidate will join an ongoing research program in viral vectors and cell systems for the expression of heterologous proteins. Interest in retroviral vectors would be valuable. Chiron offers a two-year fellowship with the possibility of renewal for a third year.

Postdoctoral fellowship in molecular biology of growth factors. The candidate will join a program in the isolation of growth factor genes and expression of their polypeptides. Applicants should have a strong background in recombinant DNA technology and protein engineering. Experience in cDNA cloning is desirable, but not necessary for consideration. The position is for two years, renewable for an additional year.

Scientist position in mammalian cell expression. Chiron currently has an opening for a scientist with expertise in the regulation of transcription and translation in cultured mammalian cells. The successful candidate will initially be part of a team developing systems for the expression of large glycoproteins. Experience with thrombolytic or blood coagulation proteins would be useful. This is a permanent, full-time position with excellent benefits and a competitive salary based on background and experience.

Please submit a curriculum vitae with a description of relevant interests and experience together with the names of three references. Indicate in your cover letter the position for which you wish to apply. Send to: Mrs. Diana Wyles, Chiron Corporation, 4560 Horton Street, Emeryville, California USA 94608.

SCIENCE WRITER SPECIALIST

The California Institute of Technology seeks an experienced writer to research, write and market science news stories to print and electronic media. Job demands ability to express complex subjects in clear and readable lay language and to relate well to both faculty and the media. Position reports to the Director of Public Relations.

Requires a degree in science and minimum 8 years science writing experience or equivalent combination of experience and education. Advanced degree and familiarity with an academic/research environment preferred. Experience working with all science media is essential.

Please send resume with salary requirements to Caltech, Supervisor of Employment, Position 754, Pasadena, CA 91125. Caltech is an affirmative action/equal opportunity employer. Women and minorities are encouraged to apply.



Caltech

Microbiologist

Pfizer Central Research has an immediate opening in its antibacterial discovery program. This position offers you an excellent opportunity to participate in an ongoing program to discover mechanistically novel antibacterials for animal health applications.

Working with a multidisciplinary project team, your responsibilities will include conceptualizing new strategies for the discovery and use of therapeutics and the development of appropriate *in vitro* laboratory models. You must possess a PhD in Microbiology plus two or more years of postdoctoral experience in bacterial physiology/pathogenesis or antimicrobial research.

This position offers an excellent opportunity for professional recognition and growth. Publication of important findings will be encouraged. We also offer competitive compensation, benefit package and the opportunity to live in an attractive Connecticut shore community. Please send resume and description of research accomplishments to: Dr. Jerry K. Larson, Manager of Employment, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



An equal opportunity employer

Digestive Diseases Branch Division of Intramural Research National Institute of Diabetes and Digestive and Kidney Diseases National Institutes of Health Public Health Service

POSTDOCTORAL POSITION is available immediately to study the cellular basis of action of gastrointestinal peptides using dispersed cell systems from various gastrointestinal tissues. Experience with receptors or stimulus-secretion coupling is desirable. Candidate must be a U.S. citizen or permanent resident. Salary will range from \$20,000 to \$23,000. Send curriculum vitae, statement of research interests and three letters of reference to:

**Dr. Jerry D. Gardner
Digestive Diseases Branch
National Institutes of Health
Bldg. 10, Room 9C-103
Bethesda, MD 20892**

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with industrial experience in down stream processing, isolation of natural products by extraction, chromatography and other procedures. Responsibilities will also include upscaling of metabolite isolation from fermentation media or from bio-transformations.

We are offering an independent and challenging research position in a small team, modern laboratory facilities and the possibility to cooperate in the conception of a pilot plant.

Candidates with a Ph.D. degree in biochemistry, organic chemistry or in a related field, are invited to send their application with detailed résumé including list of scientific publications in full confidence to Mr. Ernest K. Weber, Director of Personnel,

FIRMENICH SA - Département du Personnel
Case postale 239 - CH-1211 Genève 8

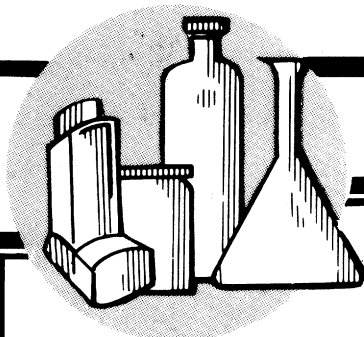
ASSOCIATE EDITOR SCIENCE MAGAZINE

Editorial position available for a Ph.D. biochemist or molecular biologist with two or three years of research experience; specific capability in structural biochemistry, immunology, and enzymology; wide general interest in biological sciences; and publications in the refereed literature. Initial duties will include editing manuscripts for clarity and style. Progress to wide responsibilities in manuscript selection is expected. Previous editorial experience not required. This is a full-time position in our Washington, D.C. editorial office.

Please submit résumé with cover letter, including salary requirements to:

Carolyn Bell
SCIENCE Magazine
1333 H Street, NW
Washington, DC 20005

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Glaxo Has The Prescription For Career Success

The fastest growing research-oriented pharmaceutical company in the U.S. has the following opening with its Research and Development group located in Chapel Hill, North Carolina.

SECTION HEAD, CARDIOVASCULAR PHARMACOLOGY

As a key member of our Molecular Pharmacology Department, you will be responsible for conceptualizing and organizing a drug discovery program in the cardiovascular area. The qualified candidate will also be involved with the preparation of IND and NDA documents with reference to heart function and hemodynamics.

Background should include a Ph.D. and/or MD specializing in pharmacology, cardiology, or cardiovascular pharmacology with 4+ years of industrial experience pertaining to drug discovery in some or all of the following: cardiotonics, hypertension, antiarrhythmics, arteriosclerosis, and myocardial ischemia. Candidate must possess in-depth knowledge of cardiac physiology and first hand experience in one or more of the following: regional blood flow, renal function and respiratory function. A general working knowledge of biochemistry and autonomic/receptor pharmacology is desirable.

Your abilities and potential will be recognized with a competitive starting salary and benefits package. Our location, in the heart of North Carolina, offers a mild climate year round, access to some of the finest universities in the country, numerous cultural activities and nearby recreational facilities. For prompt consideration, please forward your resume, including salary history, to:

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No Private Agency Referrals, Please*

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POSITIONS OPEN

PHYSICIST: Career position, applied research, development, production; basic and high stability frequency and time standards. Good theoretical background and laboratory expertise: atomic and molecular beams, electronics d-c to microwave, analog and digital systems. Ph.D. or exceptional master's degree with supervisory and management potential. Send curriculum vitae to **Sigma Tau Standards Corporation, P.O. Box 1877, Tuscaloosa, AL 35403. An Equal Opportunity Employer.**

PLANT CELL BIOLOGIST to engage in original research in maize cell biology with emphasis on developing systems for regeneration of whole plants from single cells. Ph.D. in plant biology/pathology; 4 years of experience in plant cellular biology research; some experience in cereal tissue cultures, suspension cultures, regeneration from cereal protoplasts, and enzymes for cell wall removal. Must have some refereed publications. \$37,120 per year. Send résumés to: **Iowa Department of Job Service, 150 Des Moines Street, Des Moines, IA 50309. Job order #1622628.**

PLANT/RHIZOSPHERE MODELER: Postdoctoral research opportunity for broadly trained individual to model belowground dynamics in arctic tundra ecosystems. Emphasis on simulation modeling approaches to study soil processes determining nutrient availability and uptake in tundra soils. Interest in rhizosphere processes and plant-soil interactions on whole plant growth. Ph.D. in ecology, agronomy, soil science, or related field. Experience in simulation modeling desired. Position available immediately. Send curriculum vitae, statement of research interests, and three letters of recommendation to: **Dr. James F. Reynolds, Systems Ecology Research Group, San Diego State University, San Diego, CA 92182. Telephone: 619-229-2887. Deadline for application is 1 February 1987 or until suitable candidate is found. Equal Employment Opportunity/Affirmative Action/Title IX Employer.**

BIOLOGY/BOTANY

FIELD-ORIENTED PLANT TAXONOMIST/SYSTEMATIST: (Tenure track). Teaching responsibilities: plant taxonomy, dendrology, or economic plants, and freshman level biology courses. Other duties include advising, committee work, and serving as curator of the herbarium. Applicants should have a strong commitment to teaching and research, and should possess a Ph.D. Send résumé, letter of application, undergraduate and graduate transcripts, and three letters of recommendation by 1 March 1987, to: **Dr. John Dixon, Chair, Search Committee, Department of Biology, University of Wisconsin-Eau Claire, Eau Claire, WI 54701.**

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

PLANT VIROLOGIST to engage in original research on the molecular biology of corn viruses and to develop immunoreagents and nucleic acid probes to identify plant virus and mycoplasma diseases of corn. Ph.D. in microbiology/virology with 4 years of experience in plant virology and molecular biology. Must have knowledge of recombinant DNA techniques, molecular plant virology, experience with plant protoplasts, genetic manipulation of viruses for use as plant gene vectors, production of immunoreagents, virus and mycoplasma identification. Must have some refereed publications. \$42,500 per year. Send résumés to: **Iowa Department of Job Service, 150 Des Moines Street, Des Moines, IA 50309. Job Order #1622629.**

POMOLOGY/COLD HARDINESS PHYSIOLOGIST. Purdue University. Tenure-track 12-month position (80% research, 20% teaching) at assistant or associate professor level; research in cold hardiness, dormancy, or frost tolerance to include physiological-genetic approach utilizing molecular and cellular techniques with linkage to whole plant performance. Teaching includes undergraduate course in pomology in alternate years. Individual should have knowledge of fruit crops and expertise in one or more of the following areas: physiology, biochemistry, cell culture, molecular biology, genetics. Experience beyond the Ph.D. such as postdoctorate training or a previous research appointment desirable. Applications accepted until 15 March 1987 or until position is filled. Send cv, professional goals, reprints, transcripts and names of four references to: **Professor Jules Janick, Chairman, Search Committee, Department of Horticulture, Purdue University, West Lafayette, IN 47907. Equal Employment Opportunity/Affirmative Action.**

POSITIONS OPEN

POPULATION BIOLOGY. The Department of Biology at The University of Chicago announces a search to fill two positions in the area of population biology (broadly defined), at the level of assistant professor. We are particularly interested in a research program that combines empirical and theoretical approaches. Applications are especially invited in the areas of:

**Molecular Evolution
Plant Population Biology
Microbial Population Biology
Animal Ecology
Community Ecology**

Please send a letter of application, curriculum vitae, reprints and/or recent manuscripts, a statement of research interests, and three letters of reference to: **Search Committee, Department of Biology, The University of Chicago, 940 East 57 Street, Chicago, IL 60637.**

Deadline for receipt of applications is 1 March 1987. *The University of Chicago is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION (NIH Training Grant) available immediately for a new study of RNA polymerase-prokaryotic promoter interactions using site-directed chemical modification to structurally perturb interacting sites. Recent Ph.D., U.S. citizenship or permanent residency required. Send curriculum vitae and names of three references to: **Dr. Jack Lebowitz, 520 CHSB, University of Alabama at Birmingham, Birmingham, AL 35294.**

POSTDOCTORAL POSITION Available to study functions of G-proteins that are pertussis toxin substrates, and/or the role of receptor phosphorylation in desensitization. Position available March 1987, for 2 years. This position is funded by a NIDA Postdoctoral Training Grant, and hence is restricted to citizens and permanent residents of the United States only. Send résumé and names of three referees to: **Dr. Ravi Iyengar, Department of Pharmacology-Box 1215, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029.**

POSTDOCTORAL POSITIONS available to work on the molecular biology of respiratory syncytial virus are available immediately. Applicants should have experience in recombinant DNA technology and molecular virology. The positions hold appointments at Harvard Medical School. Salary commensurate with experience. Send curriculum vitae and list of references to: **Dr. Jean L. Patterson, Assistant Professor of Microbiology and Molecular Genetics, Harvard Medical School, Division of Infectious Diseases, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115.**

POSTDOCTORAL POSITION available 1 July 1987 for full-time participation in a research program studying the molecular genetics of human collagen disorders. Significant experience with recombinant DNA techniques is preferred but not required. Send curriculum vitae and names of three references to: **Dr. Jeffrey L. Doering, Department of Biology, Loyola University of Chicago, 6525 North Sheridan Road, Chicago, IL 60626. An Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH in hypertension at the Medical College of Ohio in the departments of medicine and physiology for M.D. or Ph.D. Areas of research include hormones and hypertension. Prostaglandins, atrial natriuretic factor. Clinical investigations as well as laboratory studies are carried out. Open only to U.S. citizens or permanent residents. Write: **Patrick J. Mulrow, M.D., Chairman, Department of Medicine, Medical College of Ohio, CS 10008, Toledo, OH 43699. We are an Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE position is available to study mechanisms involved in the anticoagulant pathway of protein C. Experience with protein purification and protein characterization would be helpful. To apply send curriculum vitae and two references to: **Dr. F. J. Walker, American Red Cross Blood Services, 209 Farmington Avenue, Farmington, CT 06032.**



Specialist in PROTEIN CHEMISTR

Director, Macromolecular Structure, Sequencing and Synthesis Facility

The Department of Biochemistry at Michigan State University is seeking a Specialist to supervise operation of the MSU Macromolecular Structure Facility. This facility is currently equipped with a Beckman 890M liquid phase sequencer, the Waters Pico-Tag amino acid analysis system, an Applied Biosystem 381 DNA synthesizer, and a peptide synthesizer. Familiarity with this instrumentation, its operation, and interpretation of resulting data required. Additional responsibilities include overall management of the facility, supervision of technical personnel (currently two) working in the laboratory, and consultation with users of the facility with respect to developing analytical protocols. Applications from candidates having a Ph.D. degree with extensive experience operating sequencing and/or synthesis instrumentation is desired. However, candidates having a B.S. degree in biochemistry or related area with subsequent experience relevant analytical procedures will also be considered. Salary is negotiable and based on qualifications and experience. An excellent fringe benefits program is provided to university employees.

Send application along with curriculum vitae and two supporting letters of recommendation to: **Dr. John Wilson, Department of Biochemistry, Michigan State University, East Lansing, Michigan, 48824. Michigan State University is an affirmative action/equal opportunity employer.**

NATIONAL CANCER INSTITUTE National Institutes of Health, Public Health Service

CANCER PREVENTION FELLOWSHIP PROGRAM (CPFP)

The Division of Cancer Prevention and Control is accepting fellowship applications for a proposed August 31, 1987 entry into CPFP. Funding permitting, up to ten individuals may be accepted for three years of training. Requirements are: M.D., D.O., or an accredited doctorate degree in a discipline related to cancer prevention and research (biomedical, social, or behavioral sciences) or equivalent and academic-professional excellence supported by official transcripts and four letters of reference, and United States citizenship or a resident alien eligible for citizenship within four years at the time of application. Current salaries range for an M.D./D.O. or a Ph.D. respectively, are \$26,000-\$35,000 and \$18,000-\$31,000 per annum. Send postcard with your name and address to: **Ms. Nancy E. Garner, NIH/NCI/CCAB, Blair Building, Room 4A01, Bethesda, MD 20892-4200, or call (301) 427-8788 for application and information packet.**

DEADLINE FOR RECEIPT OF APPLICATIONS IS MARCH 16, 1987
(The NIH is an Equal Opportunity Employer)

Postdoctoral Position Available At Wyeth Laboratories

A postdoctoral fellow position is immediately available at our headquarters facility in Radnor, PA, an attractive Main Line suburb of Philadelphia.

This position is available in vaccine research and protein engineering. Candidates should have expertise in recombinant DNA technology and experience with fermentors and/or protein purification. Applicant should have a degree in molecular biology, microbiology or biochemistry.

This position offers an attractive salary and benefits, is immediately available for a one year appointment and can be renewed for another year.

Qualified candidates are invited to submit curriculum vitae: **Recruitment Manager**,

Wyeth Laboratories
P.O. Box 8299
Philadelphia, PA 19101



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Repligen Corporation

Repligen Corporation is a biotechnology company that develops and produces biochemical and biocatalytic products for the health care, personal care, and industrial markets. Highly motivated scientists are being sought for the following positions:

Principal Investigators

Immunology—Molecular or cellular immunologist to develop immunoactive proteins for therapeutic applications.

Virology—Experience in mammalian virology, particularly human retrovirology and viral vaccine and diagnostic development.

Molecular Biology—Experience in cDNA cloning and mammalian cell expression systems.

Dermatology—A strong cell biology background with experience in therapeutic dermatology.

Qualified individuals will have a Ph.D. or M.D. degree, with at least five years post-doctoral experience. Successful candidates will possess an exceptional record of achievement and have proven program management skills.

Research Scientists and Research Associates

Molecular Biology—cDNA cloning and gene expression.

Protein Chemistry—Protein purification, enzymology, and affinity chromatography.

Immunology—Molecular or cellular immunology

Cell Biology—Eucaryotic gene expression systems, tissue culture and monoclonal antibody development.

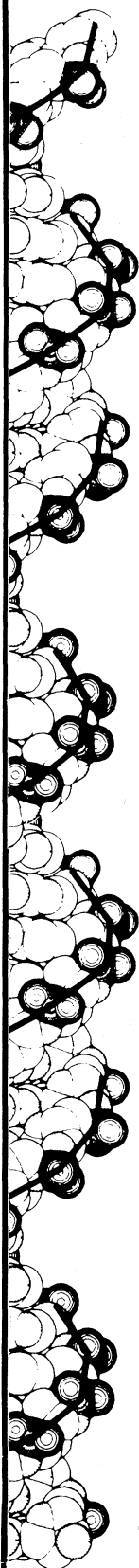
Research Scientists will possess a Ph.D. degree with post-doctoral experience. Successful candidates will have proven records of research achievement and the motivation which will allow them to take advantage of the growth opportunities available at Repligen.

Research Associates will have a M.S./B.S. with at least two years laboratory experience. For highly motivated candidates these positions offer the opportunity to expand his or her technical expertise into diverse areas of biotechnology.

Repligen offers competitive salaries, excellent benefits, and equity participation. Submit cover letter, resume, and a reference list to: **Personnel Manager, Repligen Corporation, One Kendall Square, Building 700, Cambridge, Massachusetts 02139.**

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An equal opportunity employer.



POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to set up and operate an isotope ratio mass spectrometer laboratory for doubly labeled water studies of animal physiology and ecology. Applicant should have Ph.D. in biology or related field and experience operating a mass spectrometer. Send curriculum vitae, list of publications, and names, addresses and telephone numbers of three references to: **Dr. Ken Nagy, Laboratory of Biomedical and Environmental Sciences, University of California, 900 Veteran Avenue, Los Angeles, CA 90024.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION: The Membrane Biology Program at the Center for Ulcer Research and Education/University of California, Los Angeles (UCLA), announces the availability of three postdoctoral fellowships for research on molecular, membrane, and cellular aspects of the gastric parietal cell. Research areas of interest include cloning, expression, and mutation of membrane peptides and measurement of intracellular signals in membrane vesicles and isolated cell models. Interested individuals with a commitment to research are encouraged to apply by a deadline date of 15 March 1987, by submission of curriculum vitae, brief summary of research interest, and two letters of reference to:

Dr. George Sachs
Center for Ulcer Research and Education (CURE)
VA Wadsworth
Building 113, Room 324
Los Angeles, CA 90073

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION now available in biochemistry/cell biology for someone with gene cloning experience. We are an established group in the area of membrane structure and function, magnetic resonance spectroscopy and biophysics, with interests in signal transduction, protein kinases, phospholipase C, and molecular basis of tumor promotion. We are looking for a colleague with mutual interests. Send vitae and names and addresses of three references to: **Dr. O. Hayes Griffith, Institute of Molecular Biology, University of Oregon, Eugene, OR 97403 by 15 February 1987.** Telephone: 503-686-4634. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW

Basic biomedical research in chemical and biological aspects of growth hormone control of growth, differentiation, and metabolism. Experience in tissue culture, protein and/or nucleic acid biochemistry. Available immediately. Please send curriculum vitae and names of three references to: **Martin Sonenberg, M.D., Ph.D., Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.**

POSTDOCTORAL FELLOW: Research work on nutritional biochemistry. Specific responsibilities include intestinal absorption studies in vivo and in vitro of trace elements, sub-cellular and molecular separations, chemical and biochemical assays, and statistical calculations. NIH-supported position. Qualifications: Ph.D. in nutrition, physiology, or biochemistry. Respond by résumé to: **Personnel Department, North Shore University Hospital, 300 Community Drive, Manhasset, NY 11030.** *An Equal Opportunity Employer.*

POSTDOCTORAL OPPORTUNITIES IN BIOLOGY INDIANA UNIVERSITY—BLOOMINGTON

The Department of Biology and the Institute for Molecular and Cellular Biology regularly have openings for postdoctoral fellows to work with faculty on externally funded research projects and to teach within the department. The department and the institute have strong programs in **GENETICS, MICROBIOLOGY, MOLECULAR, CELLULAR, AND DEVELOPMENTAL BIOLOGY, PLANT SCIENCES, AND ORGANISMAL ECOLOGICAL AND EVOLUTIONARY BIOLOGY.** Individuals wishing to have more information about these opportunities or to apply for positions which may become available should write to: **Postdoctoral Opportunities, Department of Biology, Indiana University, Bloomington, IN 47405.** Applicants should include a résumé, a list of current publications, and the names, addresses, and phone numbers of their references. *Indiana University is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION available to study the intracellular signals responsible for normal and malignant B lymphocyte proliferation. Experience desirable in cellular immunology, cell physiology, protein chemistry or analysis of gene expression. Send curriculum vitae and the names of three references to: **Dr. Thomas L. Rothstein, E 501, University Hospital, Boston University Medical Center, 75 East Newton Street, Boston, MA 02118.**

POSTDOCTORAL POSITION available immediately to develop and apply two-dimensional electrophoresis to maize breeding and genetics. Although primarily based in Johnston, Iowa, gel analyses will be conducted at Cold Spring Harbor Laboratories, New York. Experience is desirable in the extraction, purification, and separation of plant proteins. Send curriculum vitae and three letters of recommendation or request additional information from: **Dr. Stephen Smith, Department of Research Specialists, Pioneer Hi-Bred International Incorporated, 7301 NW 62nd Avenue, Johnston, IA 50131; telephone: 515-270-3353.** Closing date: 6 February 1987.

POSTDOCTORAL POSITION available for Ph.D.'s or M.D.'s interested in human malaria. One candidate should have molecular biology training to study the antigen stability of the malarial parasite *Plasmodium falciparum* (position available in March 1987), the other should have a biochemical background to investigate the mechanisms of parasite invasion into host cells (position available in July 1987). Send curriculum vitae and three letters of reference to: **Rupert Schmidt-Ullrich, M.D., Director, Clinical Research, Department of Therapeutic Radiology, Tufts-New England Medical Center Hospital, 171 Harrison Avenue, Boston, MA 02111.**

POSTDOCTORAL POSITION available immediately to investigate control of peripheral vascular function and sex differences in vascular physiology in humans. Ph.D. or M.D. with experience in cardiovascular physiology or pharmacology. Please send curriculum vitae, reprints, and names of three references to: **Robert Freedman, Ph.D., Director, Behavioral Medicine Laboratory, Wayne State University School of Medicine, 95 East Lafayette, Detroit, MI 48207.**

POSTDOCTORAL POSITION IN IMMUNOGENETICS to study molecular mechanisms regulating class II gene expression in human T cells, as well as their possible role in T-cell activation and/or function. Well-equipped laboratory facilities are available, with additional support existing within the University of Pennsylvania community. This position will begin in the spring of 1987. Applicants should be recent Ph.D.'s with experience in molecular biology. Experience in immunology and/or immunochemistry is desirable. Send curriculum vitae, a brief description of research experience, and three letters of reference to: **Dr. Karen S. Zier, University of Pennsylvania School of Medicine, Children's Hospital of Philadelphia, 34th Street and Civic Center Boulevard, Philadelphia, PA 19104.**

POSTDOCTORAL POSITIONS IN IMMUNOLOGY available for individuals trained in molecular biology or biochemistry/pharmacology to join a multidisciplinary group studying lymphokine-mediated intracellular signal transduction and gene activation in T lymphocytes. Send curriculum vitae, summary of research experience, and names of three references to: **Dr. David McKean, Immunology Department, Mayo Medical School, Mayo Clinic, Rochester, MN 55905.** *An Equal Opportunity/Affirmative Action Institution.*

POSTDOCTORAL POSITION—A person to work in an interdepartmental (medicine, biochemistry, surgery, and clinical pathology) project to study the mechanism(s) of insulin action and resistance in humans with and without type II diabetes. Studies will be conducted in isolated human hepatocytes, adipocytes, and muscle fibers. Contact or send curriculum vitae to: **Dr. Jose F. Caro, Section of Endocrinology and Metabolism, East Carolina University School of Medicine, Greenville, NC 27858.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS. The Department of Microbiology has 5-year training and research grants to support postdoctoral positions in research in molecular virology, mechanisms of immunity related to Herpes and Togaviruses, coronavirus structure and replication, peptide transport, recombinant DNA/plasmid function in *Pseudomonas*, lymphokine regulation, expression and functions, and other research areas in ongoing collaboration with units in the Knoxville-Oak Ridge area. For further details contact: **Dr. Arthur Brown, Department of Microbiology, University of Tennessee, Knoxville, TN 37996.**

POSTDOCTORAL POSITIONS IN TUMOR BIOLOGY

Positions available immediately to study the pathogenesis of herpesvirus or papillomavirus infection, including viral replication, gene expression, and transformation. A Ph.D. or M.D. is required with training in molecular biology, virology, or cell biology. Send curriculum vitae and three letters of reference to either: **Dr. Denise Galloway or Dr. James McDougall, Fred Hutchinson Cancer Research Center, 1124 Columbia Street, Seattle, WA 98104.**

POSTDOCTORAL POSITIONS GLYCOPROTEIN BIOCHEMISTRY AT UNIVERSITY OF CALIFORNIA, SAN DIEGO (UCSD)

Two positions available for up to 5 years to carry out broad-based studies on the structure, biosynthesis and function of N-linked oligosaccharides in *D. discoideum*. Available immediately at a salary of \$22,000 per year with full fringe benefits. Prefer individuals with experience in cellular and/or biochemical aspects of glycoconjugate research. Send curriculum vitae, reprints of recent work and the names and telephone numbers of three references to: **Hudson Freeze, Ph.D., UCSD Cancer Center, T-012 University of California at San Diego, La Jolla, CA 92093; telephone: 619-543-3904.**

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION for a person trained in cellular or molecular biology or virology to study the central nervous system infection caused by HIV. Both tissue from infected patients and cell culture models will be used to investigate the character of brain infection and the basis of HIV neurotropism. These studies are part of a combined clinical and laboratory program investigating AIDS-related dementia and CNS infection by HIV. Send curriculum vitae and names of three references to: **Richard W. Price, M.D., Department of Neurology, Memorial Sloan-Kettering Cancer Center (MSKCC), 1275 York Avenue, New York, NY 10021.** *MSKCC is an Equal Opportunity Employer M/F/H.*

PREDOCTORAL AND POSTDOCTORAL POSITIONS UNIVERSITY OF SOUTHERN CALIFORNIA SCHOOL OF MEDICINE

Four predoctoral and two postdoctoral positions funded by the National Institutes of Health are open in the Department of Microbiology. Research advisers are available in the areas of: RNA tumor viruses, coronaviruses, hepatitis viruses (**Fung, Lai, Ou, Vogt, Weissman**), control of eukaryotic protein synthesis (**Tahara**), recombination and mutation in bacteriophage lambda (**Lieb**), molecular biology of chemical carcinogenesis and mutagenesis (**Landolph, Weissman**), molecular biology and genetics of differentiation (**Fournier**), and cellular and molecular immunology (**Aladjem, Deans, Dennert, Horwitz, McMillan, Mitchell, Parkman, Pattengale, Stohlman**). For information write: **Graduate Studies, 2011 Zonal Avenue-HMR 401, Los Angeles, CA 90033-1054.** Individuals interested in postdoctoral positions should contact prospective advisors directly. Deadline for receipt of completed predoctoral applications is 1 May 1987 with starting dates approximately 1 August 1987. There is no deadline for postdoctoral applicants. NIH requires that applicants must be U.S. citizens or permanent residents. *The University of Southern California is an Affirmative Action/Equal Opportunity Employer.*

Thrombolytic Pharmacologist

New products are a key ingredient for a growing, successful company. At Abbott Laboratories, our Pharmaceutical Division is committed to new product research and development. It's a commitment that offers challenging opportunities for research scientists, and assures the continued success of our expanding organization.

This individual will conduct hemodynamic studies in large and small animals to assess the cardiovascular actions of new drugs. A Ph.D. in Physiology/Pharmacology and 2 years experience in conducting animal surgery and hemodynamic monitoring required. Familiarity with equipment for monitoring and recording cardiovascular function is necessary. Training and experience in thrombosis/thrombolysis and/or reperfusion injury is essential.

Abbott Laboratories is a \$3.5 billion health care products manufacturer headquartered in an attractive suburban area on the Lake Michigan shoreline, 30 miles north of Chicago. We provide excellent salaries, full benefits including profit sharing and stock retirement plan, and outstanding opportunities for career development. For consideration, send a resume with salary history, in confidence, to: **Patricia Handy, Corporate Placement**. Abbott is an Affirmative Action Employer.

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ABBOTT PARK IL 60064

"HEALTH CARE WORLDWIDE"

Postdoctoral Scientist Protein Biochemist

The Department of Cell Biology at Smith Kline & French Laboratories, located in suburban Philadelphia, PA, is seeking a Protein Biochemist to join a multidisciplinary team developing new therapeutic strategies for the treatment of colon carcinoma. The successful candidate will use a combination of biochemical and immunological techniques to study epithelial cell differentiation in the human colon.

Candidates should have

- a Ph.D. in Cell, Developmental or Molecular Biology or Biochemistry.
- expertise in protein separation, including two-dimensional IEF/SDS-PAGE techniques.
- expertise in protein purification and/or immunology preferred.
- 0-2 years postdoctoral experience.
- growing publication record and good communication skills.

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. For confidential consideration, please forward your C.V. and names of three references to Robert F. Obst, R&D Employment Consultant, SmithKline Beckman Corporation, 1558 Spring Garden Street, Philadelphia, PA 19101 by February 2, 1987. We are an Equal Opportunity Employer, M/F/H/V.


A SmithKline Beckman Company

DNAX Research Institute

Postdoctoral Fellowship in Immunology

At DNAX Research Institute, Dr. Christine Martens has a fellowship available to investigate roles of lymphokines in animal models of autoimmune disease. Candidates should have a strong background in *in vivo* animal models of disease, some experience in cellular immunology techniques, and experience in or a desire to learn techniques of recombinant DNA and molecular biology to apply to studies of autoimmunity.

DNAX, supported by Schering-Plough Corp., operates as a basic research institute providing a unique resource for productive collaborative efforts between immunologists and molecular biologists in a generously funded and open academic-like atmosphere. DNAX Research Fellows are encouraged to interact with other scientists at DNAX and at universities worldwide.

DNAX two-year fellowships provide initial stipends of \$24,000 to \$28,000 (depending upon experience), insurance benefits, and support to attend appropriate conferences. Applicants should send a C.V., a concise statement of research interests, and the names of three references to the Human Resources Department, DNAX Research Institute of Molecular and Cellular Biology, 901 California Ave., Palo Alto, CA 94304-1104. DNAX is an equal opportunity employer, m/f/h.

M.S./Ph.D. Genetics/ Molecular Biology

Abbott Laboratories' breakthroughs in research and development have won us the undisputed world leadership position in medical diagnostics. The potential of this field is tremendous, a trend which industry experts predict will continue to grow. As our Diagnostics Division aggressively forges ahead, we now seek individuals to provide additional scientific support.

These individuals will work with an interdisciplinary team in the research and development of nucleic acid probes for clinically useful diagnostic assays. Qualified candidates will have either an M.S. in Genetics or Molecular Biology, or a Ph.D. with at least 1-2 years postdoctoral training or equivalent.

Abbott is a \$3.5 billion leader headquartered in an attractive suburban area on the Lake Michigan shoreline 30 miles north of Chicago. In addition to a superior scientific environment, we provide excellent salary and comprehensive benefits including profit sharing and stock retirement plan. For confidential consideration, please send your resume with salary history to: **Stephanie Mondello/Corporate Placement, Dept. 1-16**. Abbott is an Affirmative Action Employer.

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POSITIONS OPEN

POSTDOCTORAL POSITIONS IN NUTRITION. Three positions available now through fall to work in the Clinical Nutrition or Lipoprotein Units. Research areas are vitamin biochemistry, energy metabolism using novel stable isotope techniques, or lipoprotein metabolism. Salary commensurate with experience. Send curriculum vitae and list of three references to: **Dr. Dale Schoeller, Clinical Nutrition Research Unit, Department of Medicine, Box 223, University of Chicago, 5841 South Maryland Avenue, Chicago, IL 60637.**

POSTDOCTORAL TRAINING IN CANCER BIOLOGY

Postdoctoral Positions are available at the **London Regional Cancer Centre** (in association with the University of Western Ontario).

Faculty available for training include:

Ann Chambers: Cellular and molecular biology of tumor metastasis in immune-deficient and immune-competent experimental hosts.

J. Gregory Cairncross: Cellular and molecular biology of glial differentiation; biology of glial tumors.

Geoff Hammond: Structure/function and gene expression of steroid-binding proteins; mechanism of steroid entry into target cells.

John F. Harris: Cellular and molecular biology of tumor metastasis in immune-competent hosts; development of mouse and human monoclonal antibody to tumor-associated antigens.

Rodger Inch: Sensitivity of multicell spheroids to cytotoxic drugs; magnetic resonance imaging and spectroscopy to monitor tissue damage.

Jim Koropatnick: Gene amplification in mammals, cloning avian and mammalian lectin genes (with H. Ceri, University of Calgary); molecular biology of human hybridoma stability (with Dr. J. F. Harris).

Applications should state the faculty member(s) with whom the candidate wishes to work and should include curriculum vitae and references. Inquiries or applications should be sent to:

Dr. Ann Chambers
London Regional Cancer Centre
391 South Street
London, Ontario N6A 4G5
Canada

RESEARCH ASSOCIATE MOLECULAR BIOLOGY/VIROLOGY

The Division of Hematology, Cornell Medical Center, invites applications for a postdoctoral position in a multidisciplinary research laboratory studying molecular mechanisms of infection of human cells with retroviruses, including HTLV-III. The ideal candidate will be experienced in cDNA library construction, cloning, Southern blots and Northern blots, and will collaborate with two other postdocs with experience in protein chemistry and translational regulation. The applicant must have a Ph.D. or M.D. Initial appointment is for 2 years, with the possibility of renewal and advancement. Salary dependent on qualifications and experience. Send résumé and names of two references to: **Jeffrey Laurence, M.D., Division of Hematology-Oncology, The New York Hospital-Cornell Medical Center, 525 East 68th Street, New York, NY 10021.**

RESEARCH ASSOCIATE/PHARMACOLOGY-BIOCHEMISTRY POSITION available immediately for investigation of various enzymes encapsulated into carrier erythrocytes for drug antagonism studies. Knowledge of enzymology and/or pharmacokinetics preferred. Send curriculum vitae and names of three references to: **Dr. L. Baxter, Department of Pharmacology, Texas A&M University, Medical Sciences Building, College Station, TX 77843. Equal Opportunity University.**

RESEARCH ASSOCIATE position for 18 months, available starting March 1987 for studies on the B-12 binding proteins of marine organisms. An M.S. degree in biochemistry is required, a Ph.D. preferred. Experience in protein chemistry and recombinant DNA technology would be useful. Salary supported by NIH grant funds at \$19,000 annually. Please send letter of application, curriculum vitae, and two letters of reference by 17 February 1987 to: **Dr. Gurdial Sharma, Chemistry Department, Drawer A, William Paterson College, Wayne, NJ 07470. William Paterson College is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

RESEARCH ADMINISTRATOR

The Saint Louis University Medical Center seeks to recruit a scientist as its chief administrator for research. It will be the responsibility of the office to advance science at the Medical Center through interaction with national biomedical funding agencies and private corporations, assistance to faculty members in the grant application process and facilitation of research within the Medical Center. Responsibilities will include oversight of the Institutional Review Board for human experimentation, the Animal Care Committee and the Biohazard and Environmental Safety Committee. It is expected that the successful candidate will have an established national reputation as a biomedical scientist and a strong record of administrative accomplishment. Qualified individuals are encouraged to send a letter of interest and an accompanying curriculum vitae to: **The Chairman of the Search Committee, Department of Pathology, Saint Louis University School of Medicine, 1402 South Grand Boulevard, Saint Louis, MO 63104. Equal Opportunity Employer. M/F/H/V.**

RESEARCH BIOCHEMIST

Applicants should have a Ph.D. in biochemistry, substantial knowledge and experience in enzymology with particular emphasis on the design of selective enzyme inhibitors. They will work closely with a group of synthesis chemists and collaborate in the section of suitable xenobiotic targets. Research will involve investigation of enzyme/receptor activities, and identification of biochemical processes that will lead to the identification and development of novel pesticide compounds. A strong chemistry background is required, and knowledge of plant, fungal, or insect systems is desirable.

Interested individuals should send their résumé to:

Mr. S. K. Fortune
Supervisor, Human Resources
P.O. Box 4010

Richmond, CA 94804-0010
An Equal Opportunity Employer.

RESEARCH POPULATION ECOLOGIST

U.S. Fish and Wildlife Service (FWS), Patuxent Wildlife Research Center, Laurel, MD, invites applicants for a GS-11 research biologist position in the Migratory Bird Branch. Research will involve population estimation and modeling work, with emphasis on waterfowl populations. Knowledge of band recovery models, capture-recapture models, and sample survey statistics would be helpful. However, research will not be restricted to parameter estimation but will involve investigating and modeling functional relationships affecting survival and reproductive rates. Current salary for a beginning GS-11 is \$27,172. Vacancy announcement and other information can be obtained from: **James D. Nichols, U.S. Fish and Wildlife Service, Patuxent Wildlife Research Center, Laurel, MD 20708.** Closing date is 15 February 1986. *FWS is an Equal Employment Opportunity Employer.*

RESEARCH SCIENTIST needed to assist in research program development and contract management. Initial tasks will include contract supervision for six to eight research projects, assistance with proposal review and RFP preparation. Experience in research contract management, an advanced degree in basic science or engineering discipline, and demonstrated writing/communication skills required. Salary \$22,000 to \$30,000 per annum. Closing date 15 February 1987. Submit résumé and three letters of reference to: **Dr. Gary D. Miller, Hazardous Waste Research and Information Center, 1808 Woodfield Drive, Savoy, IL 61874. Equal Opportunity/Affirmative Action Employer.**

RESEARCH SCIENTIST. General Motors Surgical Research Laboratory, Memorial Sloan-Kettering Cancer Center. Ph.D. with 2 to 5 years of experience in areas related to defining cellular and molecular properties of metastatic cancer cells/host factors which might determine organ localization of the cells. Excellent opportunity to develop an independent research program in a supporting scientific milieu. The program has been funded. Send curriculum vitae, bibliography and names of three references to: **Dr. Joseph G. Fortner, Director, General Motors Surgical Research Laboratory, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Telephone: 212-794-7466.**

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POSITIONS OPEN

UNIVERSITY OF OTTAWA DEPARTMENT OF SURGERY RESEARCH ASSOCIATE

The Division of Vascular Surgery invites applications for a molecular biologist/biochemist with experience in techniques related to atherosclerosis research, vascular pathology/physiology. An M.D. and/or Ph.D. is required and postdoctoral experience is desirable. Interested candidates should submit curriculum vitae and the names of three references by 15 February 1987 to: **C. William Cole, M.D., FRCSC, CPC Suite 258, Ottawa Civic Hospital, Ottawa, Ontario, Canada, K1Y 4E9.**

RESEARCH ASSOCIATE for a research unit of a hospital/teaching medical center. Conduct clinical research using human and/or animal subjects in experimental studies to investigate cryopreserved bone marrow cells for autologous bone marrow transplants. Position requires an M.D. or a Ph.D. in biological science plus 4 years of experience as a research associate or 4 years of experience in clinical practice in hematology/oncology. Must have knowledge of and demonstrated skills in autologous bone marrow transplants. Must have experience in the harvesting and cryopreserving of bone marrow cells. Experience in developing protocols in research techniques specifically in cryopreserved bone marrow cells for bone marrow transplants. Must have knowledge/experience in intra-arterial administration of chemotherapy and effects of supralesional doses of chemotherapeutic agents. Must have experience in detection of bone tumors. Applicants must have published research in medical/molecular biology journals. Salary: \$37,600 per year. Applicants, please send this ad and your résumé to: **Employment Security Division, P.O. Box 34047, 1223 West 7 Street, Little Rock, AR 72203, Job Order #417607. Ad paid for by an Equal Opportunity Employer.**

USDA HUMAN NUTRITION RESEARCH CENTER (HNRC) ON AGING AT TUFTS UNIVERSITY RESEARCH ASSOCIATES

The HNRC is a multidisciplinary, modern research facility which investigates the role that diet and nutrition play in the aging process. Two positions are available as follows:

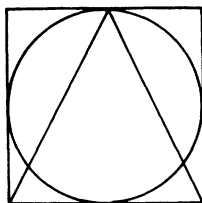
Ph.D. Nutritional Biochemist interested in the molecular mechanisms of redox-active vitamins and cofactors. A background in protein and lipid biochemistry, HPLC, and both in vivo and in vitro metabolic techniques desirable.

M.D. or Ph.D. with interest and background in the biochemistry, metabolism, and enzymology of folic acid and other water-soluble vitamins. Will perform studies related to epithelial transport of these nutrients using in vitro, animal, and human systems. Send statement of research interests, curriculum vitae, and names of references to: **Patricia Gani, HNRC Personnel Office, 711 Washington Street, Boston, MA 02111. An Affirmative Action/Equal Opportunity Employer.**

Computer modeling in metabolism, funded **RESEARCH ASSOCIATE POSITIONS** (doctorate preferred) to participate in a joint collaboration between the University of Southern California (**R. N. Bergman**) and The University of California, San Diego (**J. Olefsky**).

Area: Dynamics of insulin action in vivo. Candidates should be conversant in computer programming, numerical analysis and statistics and have an interest in diabetes research. Send curriculum vitae and three reference names to: **R. N. Bergman, Physiology and Biophysics, USC Medical School (MMR 110), 2025 Zonal Avenue, Los Angeles, CA 90033.**

SCIENTIFIC PROGRAMMER—Model and evaluate RF Ultrasound information from two-dimensional echocardiographic images and analyze the images formed during studies of myocardial ischemia. Confer with researchers to define program intents. Use IBC PC/XT and "C" language to convert data into processable formulation. Review and analyze results. Perform image processing, simulation, digitizing, graphic display, and numeric analysis to define and solve research problems, and so forth. Require bachelor degree in science with 4 years same experience or 4 years scientific analyst experience. Must be familiar with image processing and know "C" language. \$25,000 per year. Jobsite/interviews, Los Angeles, CA. Send ad and résumé to: **Job #MA 11144, P.O. Box 9560, Sacramento, CA 95823-0560** not later than 31 January 1987.



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For Additional Information and Registration Forms, Contact:

Ms. Cathy O'Neill
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POSITIONS OPEN

RESEARCH SPECIALIST SPECIMEN PREPARATION/ELECTRON MICROSCOPY

Applications are invited for a research specialist to be supported on external grant funds, within the High Resolution Electron Microscopy Facility at Arizona State University. The job-holder is expected (i) to develop/maintain specimen preparation techniques appropriate for high-resolution electron microscopy and microanalysis; and/or (ii) to maintain design and modify vacuum systems and electronic circuits for electron microscopes and evaporation/deposition equipment. Participation in ongoing research programs is also possible. Prefer candidate with M.S. or Ph.D. in physical/materials science with prior experience of electron microscopy/metallography. Send application, curriculum vitae and three letters of reference to: **Mrs. Nancy L. Higgins, Center for Solid State Science, Arizona State University, Tempe, AZ 85287** by 15 February 1987. *Arizona State University is a committed Equal Opportunity/Affirmative Action Employer.*

RESEARCH TECHNICIAN

The Biological Sciences Section of the Garst Seed Company, a member of the ICI International Seeds Business, is seeking candidates for B.S./M.S. level positions to conduct isozyme and/or restriction enzyme analysis of maize. Experience with DNA restriction fragment length polymorphisms (RFLPs) and isozymes will be an advantage. The research will be conducted at Slater (10 miles south of Ames), Iowa. Salary will be competitive. Please contact: **Dr. M. A. Saghai, Garst Seed Company, Research Department, P.O. Box 500, Slater, IA 50244.**

SYSTEMATIST AND HERBARIUM DIRECTOR

The Department of Botany, University of Minnesota, seeks an ASSISTANT OR ASSOCIATE PROFESSOR in experimental vascular plant systematics, preferably with interests in molecular and/or biochemical approaches. The successful candidate will be expected to maintain a vigorous research program in a modern area of plant systematics. Teaching responsibilities may include undergraduate and/or graduate courses within the department. Up to a quarter of the appointee's time will be devoted to directing the University of Minnesota Herbarium. The responsibilities involve supervision of herbarium staff, including a collections manager, stimulation of the use of the collections within and outside the University, public relations, and fund raising. Additional attributes sought are an interest in herbarium computerization, teaching knowledge of temperate flora, familiarity with operation of a large herbarium, and proven ability to attract research funds. A Ph.D. and minimum of 3 years of post-Ph.D. experience are required but five or more years of post-Ph.D. experience are preferred. The deadline for receipt of application materials is 27 February 1987. Please submit curriculum vitae, reprints of research articles, a statement of professional goals and research interests and objectives, and arrange to have three letters of recommendation sent to: **Dr. David J. McLaughlin, Department of Botany, 220 Biological Sciences Center, 1445 Gortner 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.*

TWO FACULTY POSITIONS. University of Illinois at Urbana-Champaign, Department of Physical Education. Applications are invited for two tenure-track positions, appointments to begin 21 August 1987. (i) assistant professor in the bioscientific aspects of human performance and exercise; (ii) assistant or associate professor in developmental kinesiology. Salaries competitive and commensurate with experience. Ph.D. required. Scholarly activity is expected through involvement in the department's undergraduate and graduate instruction, research, and service functions. To assure full consideration, applications must be received by 15 February 1987. Send to: **Chair, Search Committee, Department of Physical Education, University of Illinois at Urbana-Champaign, 129 Freer Hall, 906 South Goodwin, Urbana, IL 61801; telephone: 217-333-2461.** *The University of Illinois is an Affirmative Action Equal Opportunity Employer.*

POSITIONS OPEN

SENIOR RESEARCH ASSOCIATE to carry out research on tRNA-ribosome cross-linking. Ph.D. and 2 years of postdoctoral research required. Experience in analysis of proteins and nucleic acids, including peptide and RNA sequencing, gel electrophoresis, and photochemical cross-linking, is essential. Salary \$22,500. Apply by 15 February 1987 with résumé and three letters of recommendation to: **Dr. R. A. Zimmerman, Department of Biochemistry, University of Massachusetts, Amherst, MA 01003.** *An Affirmative Action/Equal Opportunity Employer.*

YALE UNIVERSITY DEPARTMENT OF MOLECULAR BIOPHYSICS AND BIOCHEMISTRY

Tenure-track position available in broad area of molecular biology. Qualified applicants expected to have an independent research program and to participate in departmental teaching. Curriculum vitae, research prospectus and three letters of reference should be addressed to:

**Dr. William Konigsberg, Chairman
Department of Molecular Biophysics
and Biochemistry
Yale University
P.O. Box 3333
333 Cedar Street
New Haven, CT 06510**

TECHNICAL MANAGER. The National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI) invites applications for Quality Assurance Project Leader for the federal Forest Response Program which investigates the effects of atmospheric pollutants on forest ecosystems. Responsibilities include implementation of the QA Project, management of 4-5 QA Specialists and integration of QA efforts with an analytical group involved with synthesizing data. Requires a Ph.D. with a minimum of 5 years of experience in conducting research in forest science or a related field; experience in quality assurance methodology is desirable. Demonstrated leadership ability is important. Applicants interested in short-term (1 to 3 years) assignment will be considered. Job is located at the U.S. Environmental Protection Agency Environmental Research Laboratory in Corvallis, OR. Applicants should send curriculum vitae and references to: **Dr. Benjamin Stout, NCASI, 260 Madison Avenue, New York, NY 10016, or Dr. Roger Blair, U.S. Environmental Protection Agency, 200 SW 35th Street, Corvallis, OR 97333.** The closing date for applications is 15 February 1987. *NCASI is an Equal Opportunity Employer.*

VIROLOGIST-MICROBIOLOGIST. Tenure-track position effective September 1987. Rank is open and will depend upon qualifications of candidate selected. Duties include graduate and undergraduate teaching and direction of graduate research. Research area is open but preference will be given to candidates experienced with molecular approaches. Send curriculum vitae, statement of research and teaching goals, and names of three references by 15 March 1987 to: **Dr. J. Michael Mullins, Search Committee, Department of Biology, The Catholic University of America, Washington, DC 20064.** *An Affirmative Action/Equal Opportunity Employer.*

THE UNIVERSITY OF TEXAS AT AUSTIN ASTRONOMY DEPARTMENT

Invites Applications for the Vaughan Centennial Chair in Astronomy

The Department of Astronomy is seeking a senior observational astronomer to fill an endowed chair. This position is available as early as 1 September 1987, will be tenured at the full-professor level and will have earnings from its endowment available for research purposes.

The successful candidate will have a major influence on the future course of the department and McDonald Observatory. We seek primarily an optical observer with a record of major research accomplishments. Experience with instrumentation is desirable but not necessary.

Interested persons should contact: **J. Craig Wheeler, Chairman, Astronomy Department, University of Texas at Austin, Austin, TX 78712.**

The University of Texas at Austin is an Equal Opportunity Employer with an Affirmative Action Program. We encourage and welcome applications from all qualified persons regardless of sex, race, creed, national origin, or non-disqualifying handicap.

POSITIONS OPEN

The University of Michigan Medical School, Department of Surgery, seeks a **SECTION HEAD of Plastic and Reconstructive Surgery.** Need individual to direct the academic, patient care, research, educational, and administrative programs of the Section of Plastic and Reconstructive Surgery. Candidates should be eligible for appointment at the professor or associate professor rank, be certified by the American Board of Plastic Surgery or its equivalent, and have evidence of national prominence. Qualifications include clinical expertise, research productivity, medical student and resident teaching experience, and administrative ability. In addition, skills in leadership, organization, and interpersonal relationships are necessary. *The University of Michigan is a Non-discriminatory, Affirmative Action Employer.* Reply to: **Office of the Chairman, Department of Surgery, University of Michigan Medical School, 2101 Taubman Health Care Center, Ann Arbor, MI 48109-0346.**

SENIOR INTRAOPERATIVE EEG TECH/ANESTHESIA Full-Time

Massachusetts General Hospital, Boston, MA, seeks experienced intraoperative EEG technologist to perform standard and computer-processed electroencephalographic tests; administer nerve conduction studies and evoked potentials in an operating room setting. Be responsible for patient preparation, abstract writing, and the collection of data. Assist in training of new EEG technicians. Requires: EEG certification with 5 years of related EEG experience. Evoked potential, intraoperative experience and some college-level science course work preferred.

Call or send résumé to: **Harold Gregory, Massachusetts General Hospital, Employment Services Office, Fruit Street, Boston, MA 02114, 617-726-2205.**

We are an Equal Opportunity/Affirmative Action Employer.

TWO POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS IN NEURAL REGENERATION are available immediately within the **Spinal Cord Injury Research Group at the University of British Columbia and Shaughnessy Hospital.** Current research programs focus on transplantation of early embryonic neural tissue into late embryonic or adult spinal cord (Drs. J. Steeves and R. Ford). We are seeking Ph.D. or M.D. applicants experienced in one or more of the following areas: (i) CNS transplantation, (ii) neuronal cell culture, (iii) glial cell responses to injury, (iv) neural growth factors, (v) spinal cord motor physiology and (vi) neurodevelopment. Salary is \$25,000 per year for up to 3 years. Candidates should send curriculum vitae and three reference letters to: **Dr. J. F. Schweigel, Director, Acute Spinal Cord Injury Unit, c/o Department of Orthopedics, Shaughnessy Hospital, 4500 Oak Street, Vancouver, B.C., V6H 3N1, CANADA.**

VIROLOGY FACULTY POSITIONS

The Department of Microbiology and Immunology, University of Miami School of Medicine, invites applications for two tenure-track faculty positions at the ASSOCIATE and ASSISTANT PROFESSOR level. Individuals are sought with established research expertise in the field of Virology, with emphasis in the areas of **MOLECULAR VIROLOGY** and of **VIRAL PATHOGENESIS OF DISEASE.** Quality research facilities, start-up funds, and salary will be provided to the appointees. Applicants should have a Ph.D. and/or M.D. or equivalent degree. All applicants for the associate professor level position are expected to have an established, funded research program; those requesting consideration at the assistant professor level should have at least several years of postdoctoral experience and a commitment to establishing an externally funded independent research program. The appointees will be expected to participate in graduate and medical training programs. Interested applicants should send an up-to-date curriculum vitae, a statement describing research achievements and future research goals, and the names of three references to: **Virology Search Committee, University of Miami School of Medicine, Department of Microbiology and Immunology (R-138), P.O. Box 016960, Miami, FL 33101.** Review of applications will continue until both positions are filled. *Equal Opportunity Employer.*

Senior Immunologist



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Applied Biosystems is the leading developer and manufacturer of instrument-reagent systems and chemical products for the synthesis, sequencing, purification and analysis of proteins, peptides, amino acids and DNA.

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Ms. Rochelle Ruane

Applied Biosystems

850 Lincoln Centre Drive, Foster City, CA 94404

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New England Biolabs Expansion

New England Biolabs, Inc. a pioneer and leader in biotechnology located twenty-one miles north of Boston has just begun a major expansion of its research facilities. In addition to competitive salary, New England Biolabs offers a very generous fringe benefits package. Attendance at meetings, publication of research results and open communication with others are encouraged. The following opportunities are available for immediate consideration:

Senior Staff Scientist:

Ph.D. with a strong background in recombinant DNA techniques with an emphasis on the overproduction of proteins in bacterial and yeast systems. This appointment will afford the candidate the opportunity to establish his/her own laboratory.

Postdoctoral Positions:

1. Molecular Genetics

Candidate with strong background in molecular biology or bacterial genetics to study the interaction between restriction-modification systems and the host cell. Knowledge of protein chemistry would be helpful.

2. Molecular Parasitology

The parasitology group at New England Biolabs, Inc. is studying the major filarial diseases. Candidate should have experience in molecular biology and/or immunology. Projects will involve the cloning and characterization of filarial antigens.

3. Gene Cloning

The candidate should have training in biochemistry/enzymology, molecular biology, or microbiology. Projects involve the cloning, characterization and mutagenesis of restriction-modification systems.

4. Protein Chemist

Experience in protein purification, characterization and sequencing with substantial use of HPLC. To perform modification experiments directed towards type II restriction system mutagenesis. Interest in nucleic acid-protein interactions a plus.

Molecular Biologist:

Restriction endonuclease purification, requires B.S. or M.S. experience in protein purification. Strong background in molecular biology with emphasis on cloning techniques. Experience with HPLC would be helpful.

Candidates please submit curriculum vitae with three references to:

**New England Biolabs, Inc.
Director of Human Resources
32 Tozer Road
Beverly, MA 01915-9990**



POSITIONS OPEN

VICE CHANCELLOR FOR RESEARCH AND DEAN OF THE GRADUATE SCHOOL UNIVERSITY OF ALASKA-FAIRBANKS (UAF)

The Vice Chancellor, under the general guidance of the Chancellor, is responsible for providing overall leadership, coordination, and direction to UAF research and scholarly activities. UAF is the center for organized research within the University of Alaska system. Additionally, the Vice Chancellor has responsibilities for assuring the overall quality of graduate programs in concert with the Graduate Council. Qualifications include a Ph.D. or equivalent, record of scholarly achievement as evidenced by publication record, understanding of basic and applied research, and success in obtaining sponsored research funding. Experience in the management of a research/academic unit is desirable. Send nominations or applications to:

Dean James V. Drew, Chairman
Search Committee
303 Signers' Hall
University of Alaska-Fairbanks
Fairbanks, AK 99775
Telephone: 907-474-7188

Applications should include a letter of application, résumé, and at least three references. Closing date: 31 March 1987. *The University is an Equal Opportunity/Affirmative Action Employer and Educational Institution.*

AWARDS



FIDIA RESEARCH FOUNDATION PRESENTS THE SECOND CAMILLO GOLGI AWARD LECTURE

"Coexistence of Multiple Neuronal Messengers: New Aspects on Chemical Transmission" honoree and speaker **Tomas Hokfelt, M.D.**, Professor of Histology, Karolinska Institute on 5 February 1987 at 4:00 p.m. at Georgetown University Medical Center, 3900 Reservoir Road, NW, Washington, DC.

For further information, contact: Fidia Research Foundation, 1775 K Street, NW, Suite 801, Washington, DC 20006; telephone: 202-857-4277; telex: 4970490.

GRANT

HERBAL MEDICINE RESEARCH GRANTS

Research grants are being offered by Tsumura Juntendo, a leading producer of Kampo (oriental herbal) medicines. Financial support of up to \$25,000 annually for a 2-year period will be awarded for basic and clinical research which seeks to provide deeper insight into the chemistry, pharmacology, and clinical effects of traditional herbal medicines. Especially encouraged are original ideas for scientific studies of Oriental medicines which may not have the preliminary data needed to attract other support. Annual application deadline is 1 April 1987. For details, write: Tsumura Juntendo, Inc., c/o Michael Solomon, Ph.D., 509 Madison Avenue, Suite 1708, New York, NY 10022. Telephone: 212-223-3340.

TRAINING PROGRAM

NEUROSCIENCE

The Neuroscience Training Program at the University of Colorado Health Sciences Center provides multidisciplinary training leading to the Ph.D. or M.D./Ph.D. degree. Participating faculty have established research programs in the areas of behavioral, developmental, medical, and molecular neurobiology, as well as neuroanatomy, neurochemistry, neurophysiology, and neuropharmacology. Tuition plus a generous stipend are provided. For further information, contact: Dr. Greg Rose, Department of Pharmacology, Box C-236, UCHSC, 4200 East 9th Avenue, Denver, CO 80262. *Equal Opportunity/Affirmative Action Employer.*

PROFESSORSHIP

DISTINGUISHED PROFESSORSHIP IN BIOLOGY UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

The Department of Biology, University of North Carolina at Chapel Hill is pleased to announce the availability of a distinguished professorship to begin July 1988, or possibly sooner. We welcome inquiries from individuals in the fields of cell biology, developmental biology, and neurobiology. The salary is highly competitive and the position includes a permanent half-time secretary, substantial set-up funds, and a custom renovated laboratory. We would appreciate letters of inquiry from potential candidates, as well as nominations. All communications will be held in the strictest possible confidence.

For further information, write to: **L. I. Gilbert, Chairman, Department of Biology, Wilson Hall 046A, University of North Carolina, Chapel Hill, NC 27514, or telephone: 919-966-2055.** *The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer.*

FELLOWSHIPS

PREDOCTORAL FELLOWSHIPS IN BIOMEDICAL AND PHYSICAL SCIENCES

Biochemistry—Biology—Biomathematics—Biomedical Engineering—Biophysical Sciences—Biostatistics—Chemistry—Computer Science—Cell Biology and Anatomy—Genetics—Immunology—Neuroscience—Nutrition Sciences—Materials Engineering—Medical Genetics—Medical Psychology—Molecular Cell Biology—Pathology—Pharmacology—Physics—Physiological Optics—Physiology—Public Health—Virology

Well-funded faculty with diverse interests. Good post-graduation placement record. Above average stipends include payment of tuition. Contact: **The Graduate School (A), University of Alabama at Birmingham, Birmingham, AL 35294; telephone: 205-934-8246.** *Equal Opportunity/Affirmative Action Institution.*

INTERNATIONAL CANCER RESEARCH FELLOWSHIP

The Hayashibara Mutual Aid Fund, a nonprofit-making organization within the Hayashibara Group, announces a fellowship program. Two awards will be made annually. Fellowship will be taken up at the newly opened Fujisaki Cell Center which is devoted to basic and applied research related to the problems in human cancer. The fellowship is normally made for 1 year and is renewable for up to 5 years. The fellowship will be expected to commence within 6 months of the announcement of the awards. The awards are for high quality research work in one of the three categories described below.

1. Fundamental Leukemia-Lymphoma Research,
2. Cytokine-Lymphokine Research,
3. Hematopoietic Cell Cultures.

Qualified person who has a Ph.D., an M.D., or equivalent qualifications will be awarded on merit to suitably qualified research proposal and experiences. Additional information and application forms will be obtained from: **Jun Minowada, M.D., Director, Fujisaki Cell Center, 675-1, Fujisaki, Okayama 702, Japan.**

POSTDOCTORAL FELLOWSHIPS IN CHEMISTRY OR BIOLOGY OF POLYPEPTIDE HORMONES (2 OR 3 YEARS), BEGINNING JULY 1987

Opportunities for Ph.D.'s in interdisciplinary group, studying polypeptides of human and animal pituitary, or other tissues, using HPLC, gas phase microsequencing, peptide synthesis, GC/mass spectrometry, and RIA, bioassay, and so forth, to isolate, identify, synthesize, and characterize function of unknown pituitary (or other) peptides. Stipend: \$30,000 per annum plus relocation expenses. Send curriculum vitae and names of three references to:

Dr. A. F. Parlow
Harbor-UCLA Medical Center
1000 West Carson Street
Torrance, CA 90509

FELLOWSHIPS

BIOLOGY EDUCATION DOCTORAL FELLOWSHIPS FOR 1987-88

Unique doctoral program in BIOLOGY/SCIENCE EDUCATION designed to meet individual needs and to foster discipline and science education competencies. Fellowships available for 1987-88 academic year and renewable for two additional years. **Dr. Thomas R. Mertens, Director of Doctoral Programs, Department of Biology, Ball State University, Muncie, IN 47306.**

LA TROBE UNIVERSITY MELBOURNE, AUSTRALIA LA TROBE RESEARCH FELLOWSHIPS 1987/1988

Applications for research fellowships are invited from persons who have gained doctoral or equivalent qualifications within the last 5 years. A project must complement an existing area of research at La Trobe.

Fellowships will be awarded for a period of 24 months.

Salary offered is within the range of A\$24,013 to A\$27,507.

A fellowship will not be awarded to an applicant who holds a permanent appointment.

Applications must be made on the University's form which will be sent on request together with a copy of the conditions of award.

Inquirers should briefly indicate the research discipline of interest to them. The closing dates for applications are 31 March 1987 and 30 September 1987. For further information, write to: **The Staff Officer, La Trobe University, Bundoora, Victoria, 3083, Australia.**

Postdoctoral Fellowship Position NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT National Institutes of Health Public Health Service

A postdoctoral position is available immediately for an American citizen or permanent resident (with 3 years or fewer of relevant postdoctoral research experience) to study gene regulation in cellular differentiation using biochemical and recombinant DNA techniques. Background in biochemistry and/or molecular biology is preferred. Salary is \$20,000 to \$23,000 per year depending on experience. Send curriculum vitae and three letters of reference to:

Dr. Janice Chou
National Institutes of Health
Human Genetics Branch
Building 10, Room 10N-321
Bethesda, MD 20892
An Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIPS IN HEALTH PSYCHOLOGY RESEARCH

The Department of Psychology at Yale University expects to have available two NIMH-funded postdoctoral fellowships in Health Psychology Research Training beginning 1 July 1987. Core psychology faculty includes **Judith Rodin, Jerome Singer, Allan Wagner, Patricia Linville, and Roger Weissberg.** Applicants are expected to have exhibited (or shown clear promise of) excellence in research. Applicants should send a letter of application with a description of research interests, a résumé, papers and reprints, and arrange for three letters of recommendation to be sent to: **Gary E. Schwartz, Director, Postdoctoral Training Program in Health Psychology Research, Department of Psychology, Yale University, Box 11A Yale Station, New Haven, CT 06520.** Deadline for completed applications: 2 February 1987. *Yale is an Equal Opportunity/Affirmative Action Employer and applications from women and minority group members are especially encouraged.*

POSTDOCTORAL FELLOWSHIPS (M.D. or Ph.D.) for advanced training involving basic and clinical research of relevance to biological psychiatry available from the **Mental Health Clinical Research Center for Effective Disorders at the University of Pittsburgh**, \$16,000 to \$23,000 annually commensurate with experience. Applications for fall 1987 Fellowships should be received before 15 February and include curriculum vitae, statement of research interests, and three letters of recommendation. Contact: **Ms. Hermi Rojahn, Western Psychiatric Institute and Clinic, E-1213, 3811 O'Hara Street, Pittsburgh, PA 15213.**

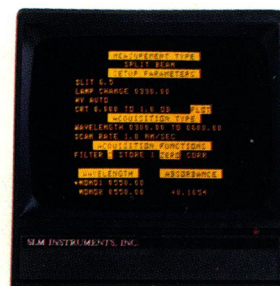
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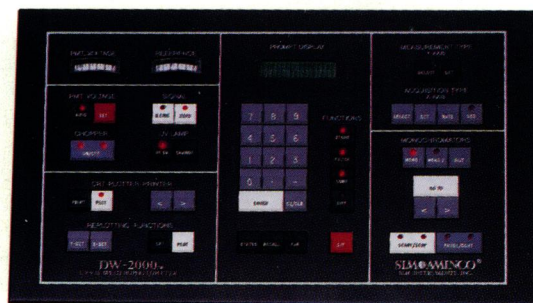
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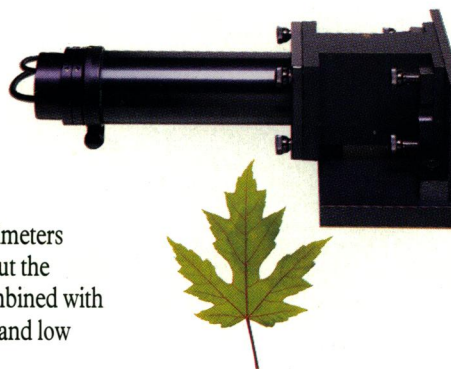
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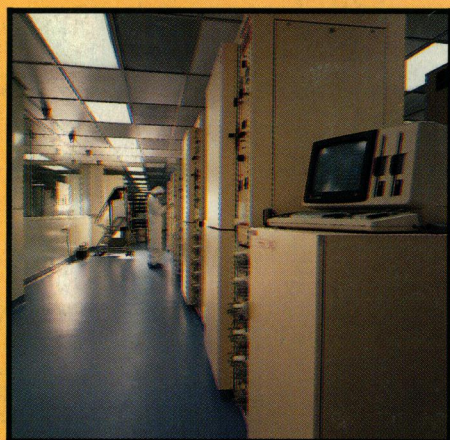
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