

calcium-activated proteases and allosteric receptors. It is perhaps humbling to realize that the best progress to date has been made in studies of simple reflex learning in mammals or in invertebrates; the neural mechanisms involved in learning and memory at a cortical level are still largely obscure. A concluding section of four chapters reviews theoretical and mathematical models of synaptic function. In the past, theoretical modeling of brain function has often relied too heavily on the computer analogy and has ignored or failed to understand the cellular reality of what neuroscience has revealed about the nature of communication in the nervous system. This criticism cannot be leveled against these authors. The book will undoubtedly appeal to a wide readership and will give much pause for thought.

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## Books Received

**Atomic Theory and the Description of Nature.** Niels Bohr. Ox Bow Press, Woodbridge, CT, 1987. iv, 119 pp. \$20; paper, \$10. The Philosophical Writings of Niels Bohr, vol. 1. Reprint, 1934 edition.

**An Axiomatic Basis for Quantum Mechanics.** Vol. 2, Quantum Mechanics and Macromolecules. Günther Ludwig. Springer-Verlag, New York, 1987. x, 242 pp., illus. \$94. Translated from the German.

**The Balance of Improbabilities.** A Scientific Life. Henry Harris. Oxford University Press, New York, 1987. x, 245 pp., illus. \$35. The Oxford cell biologist's account of his career from his studies in Australia to his appointment as Regius Professor of Medicine.

**Basic Immunology.** Immune Mechanisms in Health and Disease. Stewart Sell. Elsevier, New York, 1987. xii, 361 pp., illus. Paper, \$27.50.

**The Behavioural Ecology of Ants.** John H. Sudd and Nigel R. Franks. Chapman and Hall, New York, 1987. x, 206 pp., illus. \$55; paper, \$23. Tertiary Level Biology.

**Bioelectromagnetics.** Biophysical Principles in Medicine and Biology. Frank John Papatheofanis. Karger, Basel, 1987. x, 98 pp., illus. \$65.50. Experimental Biology and Medicine, vol. 12.

**Bodies Under Siege.** Self-Mutilation in Culture and Psychiatry. Armando R. Favazza with Barbara Favazza. Johns Hopkins University Press, Baltimore, MD, 1987. xii, 270 pp., illus. \$30.

**The Body in the Mind.** The Bodily Basis of Meaning, Imagination, and Reason. Mark Johnson. University of Chicago Press, Chicago, IL, 1987. xxxviii, 233 pp., illus., + plates. \$27.50.

**Bryozoa.** Present and Past. June R. P. Ross, Ed. Western Washington University, Bellingham, WA, 1987. viii, 333 pp., illus. \$40. From a conference, Bellingham, WA, Aug. 1986.

**Cancer Biology.** Raymond W. Ruddon. 2nd ed. Oxford University Press, New York, 1987. xiv, 530 pp., illus. \$49.50; paper, \$29.50.

**Cellular Immunotherapy of Cancer.** Robert L. Truitt, Robert P. Gale, and Mortimer M. Bortin, Eds. Liss, New York, 1987. xxii, 473 pp., illus. \$78. Progress in Clinical and Biological Research, vol. 244. From a symposium, Racine, WI, Oct.-Nov. 1986.

**Cereals in a European Context.** First European Conference on Food Science and Technology. (Bournemouth, U.K., 1986.) I. D. Morton, Ed. Horwood, Chichester, U.K., and VCH, New York, 1987. viii, 523 pp., illus. \$160. Ellis Horwood Series in Food Science and Technology.

**Chronobiotechnology and Chronobiological Engineering.** Lawrence E. Scheving, Franz Halberg, and Charles F. Ehret, Eds. Nijhoff, Dordrecht, 1987 (U.S.

distributor, Kluwer, Norwell, MA). xxii, 453 pp., illus. \$96.50. NATO Advanced Science Institutes Series E, no. 120. From a workshop, Cardiff, Wales, April 1985.

**Contemporary Classics in the Social and Behavioral Sciences.** Neil J. Smelser, compiler. ISI Press, Philadelphia, 1987. xxiv, 361 pp., \$39.95. Contemporary Classics in Science. More than 300 personal accounts, reprinted from *Current Contents*, of the "contexts of discovery" in which books and papers widely cited in the research literature ("citation classics") were conceived and written.

**Control of Mammal Pests.** C. G. J. Richards and T. Y. Ku, Eds. Taylor and Francis, Philadelphia, 1987. x, 406 pp., illus. \$71. *Tropical Pest Management*, vol. 32 (1986). From a congress, Edmonton, Alberta.

**Culture of Animal Cells.** A Manual of Basic Technique. R. Ian Freshney. 2nd ed. Liss, New York, 1987. xviii, 397 pp., illus. \$49.50.

**The Description of Cognitive Development.** Three Piagetian Themes. Ron Gold. Clarendon (Oxford University Press), New York, 1987. x, 174 pp., illus. \$39.95; paper, \$19.95.

**Drugs and Driving.** J. F. O'Hanlon and J. J. de Gier, Eds. Taylor and Francis, Philadelphia, 1986. xiv, 402 pp., illus. \$72. From a symposium, Vinkeveen, The Netherlands, June 1984.

**Drugs and the Brain.** Solomon H. Snyder. Scientific American Books, New York, 1987 (distributor, Freeman, New York). xii, 228 pp., illus. \$32.95. Scientific American Library, vol. 18.

**Dynamical Systems and Bifurcation Theory.** M. I. Camacho, M. J. Pacifico, and F. Takens. Longman Scientific, Harlow, U.K., and Wiley, New York, 1987. viii, 421 pp., illus. Paper, \$62.95. Pitman Research Notes in Mathematics, 160. From a meeting, Rio de Janeiro, Brazil, Aug. 1985.

**Electrochemical Sensors in Immunological Analysis.** T. T. Ngo, Ed. Plenum, New York, 1987. xii, 360 pp., illus. \$62.50.

**The Encyclopedia of Animal Behavior.** Peter J. B. Slater. Facts on File, New York, 1987. 144 pp., illus., + glossary and index. \$24.95.

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**Enzyme Engineering 8.** A. I. Lasakin *et al.*, Eds. New York Academy of Sciences, New York, 1987. xii, 573 pp., illus. Paper, \$143. Annals of the New York Academy of Sciences, vol. 501. From a conference, Helsingör, Denmark, Sept. 1985.

**Essays 1932-1957 on Atomic Physics and Human Knowledge.** Niels Bohr. Ox Bow Press, Woodbridge, CT, 1987. viii, 101 pp., illus. \$20; paper, \$10. The Philosophical Writings of Niels Bohr, vol. 2. Reprint, 1958 edition.

**Essays 1958-1962 on Atomic Physics and Human Knowledge.** Niels Bohr. Ox Bow Press, Woodbridge, CT, 1987. x, 100 pp., illus. \$20; paper, \$10. The Philosophical Writings of Niels Bohr, vol. 3. Reprint, 1963 edition.

**Evolution of the Onondaga Iroquois.** Accommodating Change, 1500-1655. James W. Bradley. Syracuse University Press, Syracuse, NY, 1987. xvii, 252 pp., illus. \$24.95.

**Evolution, Thermodynamics, and Information.** Extending the Darwinian Program. Jeffrey S. Wicken. Oxford University Press, New York, 1987. x, 243 pp., illus. \$32.50.

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**Field Theory, Quantum Gravity and Strings II.** H. J. de Vega and N. Sánchez, Eds. Springer-Verlag, New York, 1987. vi, 245 pp., illus. \$22.90. Lecture Notes in Physics, vol. 280. From a seminar series, Meudon and Paris, France, Oct. 1985 to Oct. 1986.

**Foundations of Colloid Science, Vol. 1.** Robert J. Hunter. Clarendon (Oxford University Press), New York, 1987. xii, 673 pp., illus. \$115.

**Frogfishes of the World.** Systematics, Zoogeography, and Behavioral Ecology. Theodore W. Pietsch and David B. Grobecker. Stanford University Press, Stanford, CA, 1987. xxiv, 420 pp., illus. + plates. \$67.50.

**GaAs Devices and Circuits.** Michael Shur. Plenum, New York, 1987. xiv, 670 pp., illus. \$75. Microdevices.

**The Galaxy.** Gerry Gilmore and Bob Carswell, Eds. Reidel, Dordrecht, 1987 (U.S. distributor, Kluwer,

Norwell, MA). xiv, 435 pp., illus. \$89. NATO Advanced Science Institute Series C, vol. 207. From an institute, Cambridge, U.K., Aug. 1986.

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**Geophysics.** Part A, Laboratory Measurements. Charles G. Sammis and Thomas L. Henyey, Eds. Academic Press, Orlando, FL, 1987. x, 476 pp., illus. \$89. Methods of Experimental Physics, vol. 24.

**Geraghty and Miller's Groundwater Bibliography.** Frits van der Leeden, Ed. 4th ed. Water Information Center, Plainview, NY, 1987. viii, 381 pp. Paper, \$26.

**Heterogeneous Catalysis.** Principles and Applications. G. C. Bond. 2nd ed. Clarendon (Oxford University Press), New York, 1987. x, 176 pp., illus. \$39.95; paper, \$17.95. Oxford Chemistry Series, 34.

**High Altitude Tropical Biogeography.** François Vuilleumier and Maximina Monasterio, Eds. Oxford University Press, New York, 1987. xii, 649 pp., illus. \$75.

**High Magnetic Fields in Semiconductor Physics.** G. Landwehr, Ed. Springer-Verlag, New York, 1987. xiv, 562 pp., illus. \$59. Springer Series in Solid-State Sciences, 71. From a conference, Würzburg, F.R.G., Aug. 1986.

**The History of Cartography.** Vol. 1, Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean. J. B. Harley and David Woodward, Eds. University of Chicago Press, Chicago, IL, 1987. xxii, 599 pp., illus. \$100.

**Impedance Spectroscopy.** Emphasizing Solid Materials and Systems. J. Ross Macdonald, Ed. Wiley-Interscience, New York, 1987. xvii, 346 pp., illus. \$44.95.

**Inductively Coupled Plasmas in Analytical Atomic Spectrometry.** Akbar Montaser and D. W. Golightly, Eds. VCH, New York, 1987. xxvi, 660 pp., illus. \$95.

**Mechanisms for Reliable Distributed Real-Time Operating Systems.** The Alpha Kernel. J. Duane Northcutt. Academic Press, Orlando, FL, 1987. xiv, 245 pp., illus. \$25. Perspectives in Computing, vol. 16.

**Membrane Receptors, Dynamics, and Energetics.** K. W. A. Wirtz, Ed. Plenum, New York, 1987. x, 395 pp., illus. \$75. NATO Advanced Science Institutes Series A, vol. 133. From an institute, Spetsai, Greece, Aug. 1986.

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**Planetary and Proto-Planetary Nebulae.** From IRAS to ISO. Andrea Preite Martinez, Ed. Reidel, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xii, 290 pp., illus. \$74. Astrophysics and Space Science Library, vol. 135. From a workshop, Frascati, Italy, Sept. 1986.

**Plant and Animal Cells.** Process Possibilities. C. Webb and F. Mavituna, Eds. Horwood, Chichester, U.K., 1987 (U.S. distributor, Wiley, New York). 307 pp., illus. \$87.95. Series in Biochemistry and Biotechnology. Based on a conference, Manchester, U.K., March 1986.

**Plant Cold Hardiness.** Paul H. Li, Ed. Liss, New York, 1987. xiv, 381 pp., illus. \$59.50. Plant Biology, vol. 5. From a seminar, Shanghai, Sept. 1986.

**Plant-Hunting in China.** E. H. M. Cox. Oxford University Press, New York, 1986. xii, 230 pp. + plates. \$27.50. Reprint, 1945 edition.

**Proteins and Enzymes.** J. Ellis Bell and Evelyn T. Bell. Prentice-Hall, Englewood Cliffs, NJ, 1988. xii, 499 pp., illus. \$46.67. A textbook intended for first-year graduate students and advanced undergraduates, emphasizing experimental techniques and "overall approaches."

**Psychological Treatment of Mental Illness.** Research Strategies and Design. R. J. Daly and E. A. Sand, Eds. Springer-Verlag, New York, 1987. xii, 155 pp., illus. \$60. From a symposium, Brussels, May 1984.

**Songs of the North.** Sigurd F. Olson. Viking Penguin, New York, 1987. xx, 267 pp., illus. Paper, \$7.95. The Penguin Nature Library.

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**Steroid Hormones.** A Practical Approach. B. Green and R. E. Leake, Eds. IRL Press, McLean, VA, 1987. xvi, 261 pp., illus. Paper, \$32. Practical Approach Series.

**Why Humans Vary in Intelligence.** Seymour W. Itzkoff. Paidcia, Ashfield, MA, 1987. 392 pp. \$18. The Evolution of Human Intelligence, 3.

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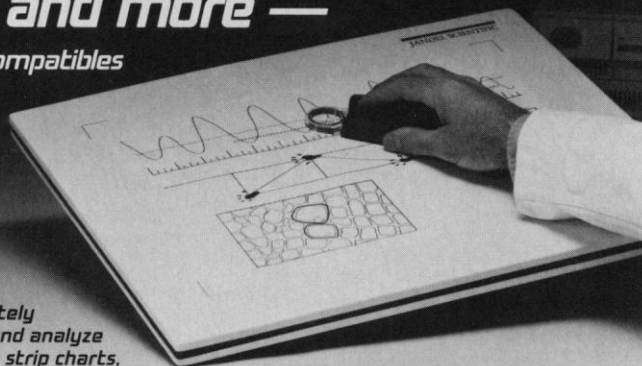
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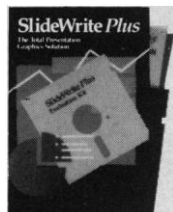
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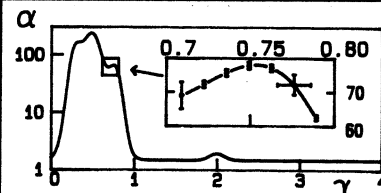
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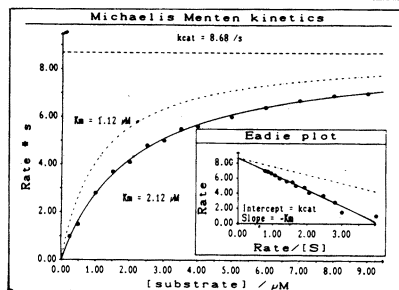
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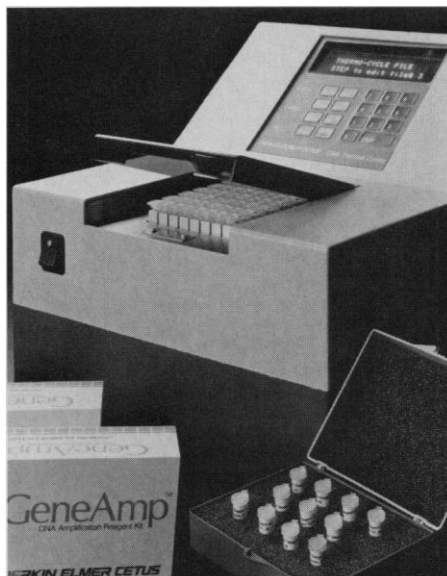
### *Interactive Image Analysis System*

The Videoplan Morphometric Workstation analyzes complex structures interactively. It has been designed for quantitation of geometric characteristics and data evaluation. The system includes a digitizer tablet, an IBM AT-compatible microcomputer with a 50-megabyte hard disk drive, a high-resolution color monitor, and a portable keyboard. The user can analyze both live video images and photographs. The menu-driven software includes programs for measurement, data evaluation, data management, file management, and word processing. The operator can track as many as 20

morphometric parameters and 6 user-defined parameters with the measurement program. Another program can automatically reformat data to DBase 3, Lotus 1-2-3, or a user-defined format. Carl Zeiss. Circle 555.

### *DNA Amplification*

The DNA Amplification System can amplify genomic or cloned DNA sequences in vitro by 100,000 times in a few hours. The system comprises a reagent kit sufficient for 100 assays and a thermal cycler. The amplification method is based on the polymerase chain reaction technique, in which the starting material is repeatedly subjected to high-temperature template denaturation, oligo-



nucleotide primer annealing, and polymerase-mediated extension. The thermostable enzyme Taq polymerase is added only at the beginning and need not be refreshed after each cycle. The fully programmable thermal cycler performs the rapid temperature changes and incubations necessary for DNA amplification. Perkin Elmer Cetus. Circle 552.

### *Electrophoresis System*

The Band-It is a system for performing electrophoresis. It casts gels in an external apparatus in trays 89 by 100 mm or 89 by 50 mm. All trays are transparent to ultraviolet light and ruled with a fluorescent marker. Gels may be photographed directly on the trays. Gels may range in thickness from 2 to 10 mm. The unit disperses current with platinum-titanium sheets instead of using electrodes. A built-in black stage eliminates the need for black paper and shows the bands clearly under ultraviolet light. A buff-

er capacity of 500 ml removes the need to recirculate buffer and thus keeps ion concentration stable. Other features of the Band-It include one preparative and two analytical combs, removable timer, seamless acrylic construction, tip-resistant squat shape, and coiled electrical leads. \$250. Chemical Dynamics. Circle 570.

### *Flat-Screened Monitor*

The Spectrasync 1537 is a color monitor with a 38-cm etched flat nonglare cathode-ray tube. Its maximum resolution is 800 pixels horizontally and 600 lines vertically. The monitor automatically adjusts the aspect ratio so that, for example, circles look like circles. Three buttons on the front of the monitor allow seven alternative text colors; with all three buttons turned off, the monitor converts to a monochrome display with shades of gray. The monitor accepts both analog and digital signals. An optional tilt-swivel base is available. Spectrasync 1537 operates on the IBM PS/2 family, the IBM PC family and compatible computers, and the Macintosh II. \$995. Idek America. Circle 571.

### *Literature*

*88C Chemical Index* is a 272-page catalog with specifications for thousands of reagents, including acids, atomic absorption reference standards, biological stains and dyes, buffers, organics, scintillation cocktails, and ion-exchange resins. Fisher Scientific. Circle 560.

*Hydrophase* is a brochure about a hydrophilic polymer column packing for biomolecule separations by high-performance liquid chromatography. Interaction Chemicals. Circle 565.

*Superflo Columns* is a product brochure about a radial flow column packed with immobilized protein A, stabilized hydroxylapatite, and ion-exchange celluloses and available in sizes from 50 to 500 ml. Sepragen. Circle 566.

The *Disposable Chromatography* catalog offers chromatography columns, caps, tip closures, bed-support disks, funnels, racks, and control valves. Isolab. Circle 567.

*Low Pressure LC System Selection Worksheet* provides guidelines and criteria for choosing pumps, detectors, and fraction collectors for liquid chromatography. Gilson Medical Electronics. Circle 586.

*DYNO-MILL* is a brochure that discusses a method of rupturing cells, including yeast, fungi, algae, proteins, and enzymes. Glen Mills. Circle 587.

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.



# Personnel Placement

**SCIENCE** publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Any deadline in ad must be at least 2 weeks after date of issue in which ad appears. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference.

**LINE CLASSIFIED ADVERTISING DEADLINES:**  
Thursday, 10 a.m., 2 weeks prior to issue date (mailed on issue date).

**POSITIONS WANTED:** 40¢ per word, plus \$4 for use of box number, per week. \$10 minimum, per week. Prepayment required. This rate is available only to individuals seeking jobs.

**LINE CLASSIFIED (POSITIONS OPEN, COURSES, FELLOWSHIPS, MARKETPLACE, and so forth):** \$38.00 per line; \$380 minimum, per week (minimum charge covers one inch on a single column; one inch equals 10 lines of 52 characters and spaces per line). No charge for use of box number. No agency commission for ads less than 4 inches. No cash discount. Prepayment required for all foreign ads. Purchase orders and/or cover letter including billing address required for all other advertising.

## To ESTIMATE ad cost:

Structure ad copy on a separate page, on lines of 52 characters and spaces. Include any desired heading. Each line of heading, and/or extra line spaces, and all partial lines (including centered reply information) are counted as full lines. Ad titles located within the text are printed in boldface caps and are only 32 characters per line. In ESTIMATING the cost, multiply total lines  $\times$  \$38.00 = approximate cost of ad. (This is an approximate cost ONLY. Allow for variation between estimated lines and actual typeset lines and the resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment.)

## CANCELLATION POLICY:

NOTE: Ad cancellations made after Thursday, TWO weeks prior to issue date incur a 10% production charge. Final deadline for cancellations is 12 p.m. Tuesday, ONE week prior to issue date. Cancellations must be in writing.

Send copy for all **Positions Wanted** ads and **Line Classified** ads less than 1/6 page in size (39 lines) to:

**SCIENCE Classified Advertising**  
1333 H Street, NW, Room 940  
Washington, DC 20005  
Telephone: 202-326-6555

Send copy for **Fractional Display** ads, 1/6 page and larger, and all **Marketplace** ads to:

**Scherago Associates, Inc.**  
1515 Broadway  
New York, NY 10036  
Telephone: 212-730-1050

Blind ad replies should be addressed as follows:

**Box (give number)**  
**SCIENCE**  
1333 H Street, NW  
Washington, DC 20005

## POSITIONS WANTED

**Ph.D. Biopsychology (1986):** 2 years of NRSA postdoctoral in biochemical pharmacology with teaching experience in neuroscience psychology. Research in opioid, serotonin receptor pharmacology; neural/behavioral mechanisms of pain/analgesia; neural development and regeneration. Seeks assistant professorship with commitment to teaching and research. Box 197, SCIENCE.

**Physiologist. D.V.M., Ph.D. Renal, cardiovascular, and systemic physiology. C.V. systems pharmacodynamics. Hypertension, effect of diet and exercise. Strong commitment to education. Seeks position in academia/industry. Box 3, SCIENCE.**

**Physiologist, M.D.** Research experience in nephropathology (hemodynamics, endocrinology). Clinical experience in general internal medicine. Teaching experience in medical physiology. Box 188, SCIENCE.

## POSITIONS OPEN

### ANALYTICAL CHEMIST

Ph.D. analytical chemist, 2+ years of postdoctoral experience in analysis of clinical samples for active pharmacologic agents and metabolites using HPLC and GC. Assay experience with organic nitrates highly desirable. Experience in pharmaceutical development useful. Send résumés to:

**Kremers Urban**  
P.O. Box 2038  
Milwaukee, WI 53201

### ANIMAL ECOLOGIST

Tenure-track, assistant professor, starting September, 1988. Requirements: Ph.D., postdoctoral and teaching experience. Appointee will teach upper division courses in ecology (with field/laboratory components), an introductory core course in population biology, and develop an active independent research program which involves undergraduates. Submit curriculum vitae, official undergraduate and graduate transcripts, three letters of reference, and a brief outline of current research and future plans to: **Dr. James L. Grainger, Ecology Search Committee, Department of Biology, Santa Clara University, Santa Clara, CA 95053** by 12 February 1988. *Santa Clara University, a Jesuit Institution, is an Equal Opportunity Employer through Affirmative Action.*

### ASSISTANT INVESTIGATOR

To participate in an on-going investigation on the mechanisms of fibrinogen assembly and secretion. Must have Ph.D. in biochemistry or related field and postdoctoral experience. Candidates should have training in DNA recombinant techniques and a record of accomplishment in this area. A competitive salary and excellent benefits are offered. Apply with curriculum vitae and three references to: **Colvin Redman, Ph.D., New York Blood Center, 310 East 67th Street, New York, NY 10021.** *An Equal Opportunity Employer.*

### ASSISTANT PROFESSOR—BIOLOGY

The joint Biology Department of the College of St. Benedict and St. John's University seeks to fill a tenure-track position beginning fall term 1988. The successful candidate will participate in introductory biology courses for majors and non-majors, an upper division course in introductory biochemistry and develop a course in molecular biology/virology. Normal teaching load is two courses with laboratory each full term. A strong commitment to undergraduate liberal arts education is highly desirable. Ability to take part in freshman/first year symposium or senior seminar would be considered a plus. Ph.D. required. Send curriculum vitae, three letters of recommendation to: **Director of Personnel Services, St. John's University, Collegeville, MN 56321.** Applications received after 19 February 1988 cannot be guaranteed consideration. *Women and minorities are encouraged to apply.* Note: Federal law requires proper documentation of identity and employability prior to final consideration for this position.

### HARVARD MEDICAL SCHOOL ASSISTANT PROFESSOR OF GENETICS/MOLECULAR BIOLOGY

The Department of Genetics at Harvard Medical School is seeking to fill a tenure-track position at the assistant professor level for September 1988. Research laboratories will be located in the Department of Molecular Biology at Massachusetts General Hospital in Boston. Major research funding, including postdoctoral support, will be available through the Department of Molecular Biology. The Department of Genetics is building a strong graduate Ph.D. program, and is engaged in teaching genetics to both graduate and medical students. We are interested in candidates conducting research in any area of molecular, developmental or structural biology. Applicants should have a strong background in molecular genetics research including significant postdoctoral training.

Applicants should submit, prior to 1 March 1988, curriculum vitae, reprints, statement of research interests, and letters from at least three references to: **Dr. Howard M. Goodman, Chief, Department of Molecular Biology, Massachusetts General Hospital, Boston, MA 02114.**

*Harvard University/Massachusetts General Hospital are Equal Opportunity/Affirmative Action Employers. Qualified women and minority group members are encouraged to apply.*

## POSITIONS OPEN

Yale University section of neurosurgery has a Ph.D. position available at the **ASSISTANT PROFESSOR** level with a degree in biological psychology, and at least 3 years of experience studying evoked potentials specifically related to epilepsy patients undergoing depth electrode and cortical surface recording.

Submit curriculum vitae and three references by 1 February 1988 to: **Dr. Dennis Spencer, 333 Cedar Street, New Haven, CT 06510.** *Minorities and women are urged to apply. Yale University is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT PROFESSOR—Inorganic Chemistry.

Tenure-track position starting September 1988. Ph.D. and strong commitment to undergraduate teaching required. Duties: teaching senior level theoretical and experimental inorganic chemistry, as well as introductory general chemistry. Research program involving undergraduates desirable. Send curriculum vitae, transcripts and three letters of reference to: **Dr. J. Conroy, Department of Chemistry, Widener University, Chester, PA 19013** by 1 February 1988.

**Department of Social Medicine and Health Policy at Harvard Medical School Boston, MA 02115: ASSISTANT PROFESSOR.** 3-year term, to do research and teaching in the field of medical economics. Requirements: Ph.D. in economics; experience in health policy and health services research; competence in a range of research methods, including evaluation, survey-based data collection and larger political-economic studies; teaching experience. Salary: half-time stipend which applicant must supplement from research grants. Application deadline: 1 March 1988. *Harvard is an Equal Opportunity/Affirmative Action Employer.*

California Institute of Technology. Applications are being accepted for a tenure-track position as **ASSISTANT PROFESSOR OF CHEMICAL BIOLOGY** and for a faculty position at the junior or senior level in structural molecular biology/x-ray crystallography. Outstanding individuals with a strong commitment to excellence in research and teaching are encouraged to apply. Curriculum vitae including a list of publications, and a brief description of proposed research activities should be sent to: **Professor John H. Richards, Division of Chemistry and Chemical Engineering 147-75, California Institute of Technology, Pasadena, CA 91125.** *The California Institute of Technology is an Equal Opportunity/Affirmative Action Employer and welcomes applications from qualified women and minority candidates.*

**ASSISTANT PROFESSOR, MEDICAL INFORMATICS.** Ph.D. computer or cognitive scientist committed to working on medical issues, or M.D. with training and interest in computer applications to medicine, especially knowledge representation and decision making. Programming skills essential. Responsibilities: conduct independent research in the area of medical information science; consult/collaborate with other faculty on research projects; develop and teach an elective course in medical informatics in the College of Medicine. Starting Date: 1 July or 1 September 1988, depending on availability. Send curriculum vitae, description of research interests, and names and addresses of at least three referees to: **Arthur S. Elstein, Ph.D., Center for Educational Development, University of Illinois at Chicago, 808 South Wood Street, Room 986, Chicago, IL 60612-4325.** Telephone: 312-996-5451. Deadline: 15 February 1988.

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

**ASSISTANT PROFESSOR: PLANT PHYSIOLOGY/WEED SCIENCE.** Tenure-track position in basic research in weed science with major emphasis on effects of herbicides on physiological and growth processes of weed and crop plants. Also responsible for teaching two graduate level courses in weed science. Qualification: Ph.D. in weed science or plant physiology with strong background in both areas. Submit curriculum vitae, transcripts, list of publications, and three letters of reference by 1 February 1988, to: **R. C. Coolbaugh, Department of Botany and Plant Pathology, Purdue University, West Lafayette, IN 47907.**

*Purdue University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### DEPARTMENT OF VETERINARY MICROBIOLOGY AND IMMUNOLOGY UNIVERSITY OF GUELPH

Applicants are invited for a tenure-track faculty position in veterinary virology at the level of **ASSISTANT PROFESSOR** in the Department of Veterinary Microbiology and Immunology at the University of Guelph. Responsibilities include research in relation to viral diseases of animals with emphasis on pathogenesis, diagnosis and control of disease of farm livestock. Competition for research funding and supervision of graduate students are expected. Teaching is at the graduate and undergraduate levels and is shared by four faculty. Applicants should hold a Ph.D. and preferably have postdoctoral experience in virology including familiarity with molecular and cell fusion techniques as applied to investigation in animal virology. Preference will be given to those having the D.V.M. degree.

The conditions of appointment are likely to appeal to scientists seeking a first position as a University faculty member. *In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.* Subject to final budgetary approval. Please address enquiries to: **Dr. B. N. Wilkie, Chairman, Department of Veterinary Microbiology and Immunology, Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada, N1G 2W1.** Applications will be accepted until 31 March 1988 or until the position is filled.

### ASSISTANT PROFESSOR VERTEBRATE ECOLOGIST (BIOLOGY)

Tenure-track position. Postdoctoral experience desirable. Preference given to candidate using a field experimental approach in terrestrial ecosystems. Teaching requirements include ornithology and/or mammalogy, and an advanced course in ecology. The successful candidate is expected to develop a nationally recognized research program. Preferred availability 1 September 1988. Please submit a letter of application, curriculum vitae, reprints, a statement of teaching and research interests, and have three letters of recommendation sent to: **Dr. Ivan Palmblad, Department of Biology, Utah State University (USU), Logan, UT 84322-5305.** Application deadline 15 March 1988, or until acceptable candidate is appointed. *Minorities and women are encouraged to apply. USU is an Affirmative Action/Equal Opportunity and Immigration Reform and Control Act Employer.*

**ASSISTANT PROFESSOR, WEED PHYSIOLOGY.** Department of Plant and Soil Science at Montana State University invites applications for a full-time, tenure-track position for research and teaching at the graduate level. Research will emphasize weed physiology and integration of molecular biology into the management and control of Montana's economically significant weed species. Qualifications: Required: Ph.D. in Weed Science or a closely related field and a strong background in basic laboratory research in weed physiology. Preferred: Experience and knowledge of herbicide-soil relationships; working knowledge of biotechnological applications and training in molecular biology; strong interest in basic research and graduate level teaching; evidence of potential to secure extramural funding. Application Deadline: 1 March 1988 or thereafter, until a suitable candidate is selected. Applicants should submit a letter of application specifically addressing the required and preferred qualifications listed above: résumé, transcripts of all university work, and names, addresses, and telephone numbers of three current, professional references to: **Dr. P. K. Fay, Chairman Search Committee, Plant and Soil Science Department, Montana State University, Bozeman, MT 59717. Telephone: 406-994-5061.** *MSU is an Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT OR ASSOCIATE PROFESSOR,** tenure-track teaching position, interdisciplinary environmental studies program. Applicants shall have experience in formulation or analysis of environmental policy; ability to use social science concepts and quantitative techniques and technical/natural science information used in environmental analysis and the education and experience suited to working with persons from diverse disciplines. Ph.D. preferred. Send inquiries: **V. Anderson, Environmental Studies, California State University, Sacramento, CA 95819.**

## POSITIONS OPEN

### ASSISTANT PROFESSOR POSITIONS DUKE UNIVERSITY MEDICAL CENTER SECTION OF CELL GROWTH, REGULATION, AND ONCOGENESIS DUKE COMPREHENSIVE CANCER CENTER

Duke University Comprehensive Cancer Center invites applications for tenure-track positions in a newly created Section of Cell Growth, Regulation and Oncogenesis at the level of assistant professor. Investigators working in any area of cancer biology are encouraged to apply, but special consideration will be given to those working in the areas of growth and differentiation factors, signal transduction, gene regulation, oncogenes, molecular aspects of transformation and drug resistance. Applicants with postdoctoral experience should have demonstrated high potential for imaginative, substantial independent research. Successful candidates will also be appointed into a basic science department within the Medical Center.

Applicant should send curriculum vitae, a brief description of present and proposed research, and the names of several references to: **Dr. Robert M. Bell, Chairman, Search Committee; Section of Cell Growth Regulation and Oncogenesis, Duke Comprehensive Cancer Center, Box 3814, Durham, NC 27710.**

To be assured of full consideration, application should be received by 28 February 1988.

*Duke University is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR TOXICOLOGY

The Toxicology Program invites applications for a tenure-track position that is available to investigate the mechanisms of xenobiotic toxicity utilizing modern techniques of molecular biology. The successful candidate will have a Ph.D. in toxicology or related field and postdoctoral experience. The applicant will be expected to develop an independent, competitively funded, research program in molecular toxicology, and participate in graduate student education. Teaching in the toxicology graduate program will be required. Submit curriculum vitae, pertinent reprints, a statement of research interests, and arrange to have three letters of recommendation sent by 15 March 1988 to:

**Dr. Ernest Hodgson  
Toxicology Program  
Campus Box 7633**

**North Carolina State University  
Raleigh, NC 27695-7633**

*North Carolina State University is an Equal Opportunity Employer and operates under an Affirmative Action Policy. The University strongly encourages all qualified applicants.*

### ASSISTANT/ASSOCIATE PROFESSOR

The Department of Medical Microbiology and Infectious Diseases, University of Alberta invites applications from individuals holding a Ph.D. and/or M.D. degree, and at least 3 years of postdoctoral research experience in an area of microbial (viral, bacterial, protozoal or fungal) pathogenesis. Salary range: Assistant professor: \$31,612 to \$45,340; associate professor \$39,620 to \$57,236. Successful candidates will be eligible to apply for salary and establishment funding support by competitive application from a major granting agency, such as the Alberta Heritage Foundation for Medical Research. Establishment support covers costs of setting up a new laboratory with major and minor equipment and operating funds for two years. Successful applicants will devote a minimum of 75% of their time to research.

*In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.*

The closing date for application is 15 February 1988.

Please send applications consisting of detailed curriculum vitae, statement of research program, reprints of the applicant's five most significant publications, and the names of three referees to: **Dr. David L. J. Tyrrell, Chairman, Department of Medical Microbiology and Infectious Diseases, 1-41 Medical Sciences Building, The University of Alberta, Edmonton, Alberta, T6G 2H7, Canada.**

*The University of Alberta is committed to the principle of equity in employment.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR PHYSIOLOGY

The Department of Physiology, Faculty of Health Sciences, University of Ottawa seeks applications for a tenure-track position from candidates with M.D. and/or Ph.D. degrees and postdoctoral research experience. The development of an independent, funded research program and participation in graduate and undergraduate teaching are expected. Interest in teaching endocrinology, and ability to teach in French, would be assets. Submit, by 1 March 1988, curriculum vitae, summary of research plan and names and addresses of three referees to: **Dr. K. C. Marshall, Chairman, Department of Physiology, University of Ottawa, 451 Smyth Road, Ottawa, Ontario, Canada, K1H 8M5.** *Canadian immigration requires that this announcement is directed to Canadian citizens and permanent residents.*

### ASSISTANT PROFESSORS CELL BIOLOGY

The Division of Structural and Systems Biology, School of Basic Life Sciences at the University of Missouri-Kansas City, is seeking to fill several tenure-track positions at the assistant professor level.

The successful candidate will be expected to develop an independent research program focused in the area of cell biology. Preferred research areas include regulation of cell growth, cell differentiation, subcellular organization, and molecular and cellular aspects of neuroscience.

The successful candidate should have a) at least 2 years of postdoctoral experience, b) demonstrated potential for or a proven record of extramural funding, and c) publications.

The Division has responsibilities in the graduate studies research interest within the School of Basic Life Sciences, in molecular and cellular biology and neurosciences and teaching anatomy and physiology to professional health science schools.

Send curriculum vitae, including statement of research and career goals, current or proposed research funding, and the names of at least three references to:

**Dr. James D. Yarbrough, Head  
Division of Structural and Systems Biology  
School of Basic Life Sciences  
University of Missouri-Kansas City  
2411 Holmes  
Kansas City, MO 64108-2792**

Screening of applicants will begin 15 February 1988 and continue until all positions are filled.

*UMKC is an Equal Opportunity/Affirmative Action Employer.*

Rutgers University, Chemical and Biochemical Engineering: Opening for calendar-year position of **ASSISTANT OR ASSOCIATE RESEARCH PROFESSOR.** Salary and rank commensurate with qualifications. Candidates must have Ph.D. in chemistry, biochemistry, or chemical engineering, or related discipline with at least two years of postdoctoral experience; and should have familiarity with latest developments in biochemical, physicochemical, and immunological techniques including quasielastic light scattering spectroscopy, UV-VIS spectroscopy, CD-ORD, EPR, advanced chromatographic and electrophoretic techniques, analytical centrifugation, gamma and liquid scintillation spectrometry, RIA, ELISA, immunoelectrophoresis, monoclonal antibody production and analysis, protein immobilization chemistry, complement chemistry, and chemical modification of proteins. Submit curriculum vitae, list of publications, and names of four references to: **Dr. Burton Davidson, Chemical and Biochemical Engineering Department, Rutgers University, PO Box 909, Piscataway, NJ 08855-0909.** *Rutgers is an Equal Opportunity Affirmative Action Employer and encourages applications from minorities and women.*

### ASSOCIATE RESEARCH SCIENTIST MOLECULAR BIOLOGY

Ph.D. in biochemistry or molecular biology is required for projects involving the molecular basis and biochemical regulation of radiation and chemically-induced cellular transformation in vitro. Applicants should have good background in recombinant DNA techniques. Send credentials and recent reprints to: **Dr. Carmia Borek, Radiological Research Laboratory, Columbia University, 630 West 168th Street, New York, NY 10032.**

*An Equal Opportunity/Affirmative Action Employer.*

## HEALTH SCIENTIST ADMINISTRATOR GM - 13/14

The National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), invites applications for Scientist to serve as Executive Secretary of Subcommittee of a Research Review Committee. Applicants must have a Ph.D. or equivalent with research training and experience in conducting independent research in microbiology, virology, immunology, epidemiology or a related field; and experience in research program administration. Familiarity with NIH extramural programs is desirable. A full position description is available upon request. This position is available immediately. Applicants should submit an Application for Federal Employment SF-171 and curriculum vitae to NIAID Personnel Office, 9000 Rockville Pike, Room 7A-27, Building 31, Bethesda, MD 20892. For additional information, call Ms. Diane Dorsch or Elizabeth Holmes on (301) 496-4634. Applications must be received or postmarked by Feb. 29, 1988. Applicants must be U.S. citizens.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

## THE STATE UNIVERSITY OF NEW JERSEY RUTGERS

### KEY POSITIONS IN AGRICULTURAL MOLECULAR BIOLOGY AT RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

The Center for Agricultural Molecular Biology (CAMB) is one of three major initiatives in biotechnology at Rutgers University that are part of a major effort to strengthen the research base for science and technology.

Applications are invited for two senior positions in plant molecular biology in CAMB. Candidates should have at least five years postdoctoral experience in molecular biology and an interest in one or more of the following fields: host-parasite interaction, biological control, insect and/or disease resistance, control of gene expression, restriction mapping, plant transformation and vector development, plant hormonal responses, or other agriculturally relevant areas. Each appointee will form a core-funded research group and will participate in the recruitment of additional senior staff. Generous start-up funding will be provided for equipment and supplies.

The positions will be tenurable in an appropriate University department. Candidates will be expected to undertake some teaching. Salaries are competitive, and rank will be determined by experience and achievement. These positions are funded through the University's Fund for Distinction, the NJ Commission on Science and Technology, and the NJ Agricultural Experiment Station.

Some 16 senior researchers will be recruited to CAMB. They will collaborate with over 400 faculty at the New Jersey Agricultural Experiment Station, and with other faculty throughout the University. A major new facility is being designed which will provide 90,000 square feet to house the Center.

Interested applicants should send curriculum vitae, an outline of their current and proposed research and the names of three referees before February 15, 1988, to: **Dr. Peter R. Day, Professor of Genetics and Director, Center for Agricultural Molecular Biology, PO Box 231, Cook College, New Brunswick, NJ 08903.** Rutgers is an affirmative action, equal opportunity employer.



### International Laboratory of Marine Radioactivity International Atomic Energy Agency Monaco

#### MARINE RADIOCHEMIST/GEOCHEMIST

The I.A.E.A. seeks the services of a Marine Radiochemist/Geochemist at a senior level as Head of the Radiochemistry/Geochemistry Section in its International Laboratory of Marine Radioactivity in Monaco. The work of the Section includes cooperative studies of the chemical/geochemical behaviour of radionuclides in the marine environment, the provision to Member States of the Agency's quality control services for marine radiochemical measurements, the development and testing of related methodology, and cooperation with other organizations through the furnishing of technical assistance, negotiation of research contracts, and consultant advice as required.

A comprehensive knowledge of the chemical and geochemical behaviour and extensive first hand experience of the measurement of radionuclides in the marine environment is essential. Relevant oceanographic, laboratory, and management experience must be demonstrated for this key-position in the management of the laboratory.

An initial contract of three years is offered at a salary of US\$ 56,800,-p.a. Additional allowances, if married. Generous travel and removal expenses are granted together with six weeks annual leave.

Applicants are invited to send a complete C.V. to the Division of Personnel, I.A.E.A., Box 100, A-1400 Vienna, Austria, quoting Vacancy Notice No 87/096.

## POST DOCTORAL RESEARCH FELLOW

St. Luke's/Roosevelt Hospital Center, New York City's largest voluntary hospital and an affiliate of the Columbia University College of Physicians and Surgeons, currently seeks a Post Doctoral Research Fellow in its Hematology and Oncology Division. Required is a PhD in Biology, Chemistry or Genetics, preferably with experience in protein chemistry, tissue cultures and electrophoresis. Must be able to work with live animals. We offer competitive salaries and comprehensive benefits. Send your CV to: Dr. T. Boussios, PhD, Hematology/Oncology Division, St. Luke's/Roosevelt Hospital Center, 114th Street and Amsterdam Avenue, New York, NY 10025. An Equal Opportunity Employer M/F.

**ST. LUKE'S ROOSEVELT**  
Hospital Center

### Health Research

## DIRECTOR, International Health

The Institute of Medicine of the National Academy of Sciences is seeking candidates for the position of Director, Division of International Health. Incumbent will develop programs and direct activities related to international health issues and U.S. programs and policies on international health; arrange meetings and conferences; and prepare written reports on these conferences and associated study results. Ph.D. or equivalent in health sciences or public health field is required with at least six years' progressive experience with project management. Some experience in the international health field is desirable.

The NRC offers a competitive starting salary and an excellent benefits package, including paid relocation to the Washington, D.C. area. Please send résumé in confidence to:

INSTITUTE OF MEDICINE  
c/o JS DIH  
2101 Constitution Ave., NW  
Washington, D.C. 20418  
An Equal Opportunity  
Employer.



## DEAN SCHOOL OF MEDICINE Duke University

Duke University seeks applications and nominations for the position of Dean of the School of Medicine and Executive Vice-President for Health Affairs. The Dean will have responsibility for, and authority over all academic and non-academic activities in the Medical Center, including those in the Hospital, allied health programs and the Nursing School. Minimal requirements include an MD degree, experience in academic administration, a distinguished background in teaching and research and a strong commitment to scholarly activities.

The position will be available July 1, 1988. Applicants should send a copy of their curriculum vitae and other credentials to: **Dean, School of Medicine Search Committee, DUKE UNIVERSITY, 215 Allen Building, Durham, N.C. 27706.**

Deadline for receipt of applications  
is March 1, 1988.

**Duke  
University**



Duke University is an Equal Opportunity/  
Affirmative Action Employer



PRINCETON UNIVERSITY  
Department of Mechanical &  
Aerospace Engineering  
School of Engineering and Applied Science

**Faculty Positions  
in  
Theoretical/Computational  
Fluid Dynamics/Heat Transfer/  
Combustion/Dynamics & Control**

The Department of Mechanical & Aerospace Engineering invites applications for faculty positions in theoretical/computational fluid dynamics/heat transfer/combustion/dynamics & control. Candidates should have demonstrated capabilities in two or more of the following areas: fluid dynamics, heat transfer, combustion, dynamics & control, numerical analysis, applied mathematics, and computer applications. A doctorate in engineering or related fields is required, and post-doctoral experience in research or teaching is desirable, particularly if it includes engineering applications. The candidate will be expected to maintain close interactions with Princeton's Applied & Computational Mathematics Program. The search is directed at the Assistant Professor rank.

Please send your resume and arrange for *three (3) letters of reference* to be sent by separate mail before January 30, 1988 to:

**Professor Steven A. Orszag  
Chairman, Faculty Search Committee  
Department of Mechanical and  
Aerospace Engineering  
218 Fine Hall  
Princeton University  
Princeton, NJ 08544**

*Princeton University is an affirmative action equal opportunity Employer.*

## Molecular Biology Of Parasites

The Parasitology Research Group and the Molecular Biology Research Group of the Upjohn Company are seeking a Research Associate at the BS or MS degree level with demonstrated experience in molecular biology, including experimental design and interpretation of research data. This position offers a challenging scientific environment and the opportunity to participate in an innovative research program including collaborative work with investigators both within and outside of Upjohn. Research will focus on the molecular biology of helminthic parasites with chemotherapeutic implications. At least three years of relevant experience is essential, with skill in basic recombinant DNA techniques required. Knowledge of parasite biology is helpful but not required.

We are located in Kalamazoo in Southwestern Michigan, midway between Chicago and Detroit, offering varied cultural events, cosmopolitan shopping and entertainment, lakes and woodlands minutes away, abundant year-round sports and recreation. Upjohn offers advancement opportunities, a highly competitive salary commensurate with experience, comprehensive benefits and relocation assistance. Please call from outside of Michigan toll free 1/800/253-8600, ext. 3-6767, (inside Michigan call collect 616/323-6767) to request an application for employment. Please refer to advertisement number 22295-A when calling. We are an Equal Opportunity Employer M/F.

**Our Commitment To Scientific  
Excellence Continues...**

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## PSYCHOBIOLOGIST NATIONAL INSTITUTE OF MENTAL HEALTH

The Laboratory of Neuropsychology, National Institute of Mental Health, Alcohol, Drug Abuse, and Mental Health Administration, seeks a developmental psychobiologist for a 4-year research position to study the ontogeny of memory and its neural basis in nonhuman primates. Ph.D. required. Must be skilled in most of the following: experimental design and statistics, memory testing, assessment of socio-emotional behavior, experimental neurosurgery, neuroanatomical tracing techniques, receptor autoradiography, and the 2-deoxyglucose method. Must also have experience in supervising the care of a rhesus monkey nursery as well as in applying the foregoing behavioral and neurobiological techniques to infant rhesus monkeys. Send Standard Form 171 (Application for Federal Employment), transcripts, and bibliography to: Personnel Office, NIMH, Bldg. 10, Rm. 4C101, 9000 Rockville Pike, Bethesda, MD 20892 (Attn: J. Barr).

**U.S. CITIZENSHIP REQUIRED  
NIH IS AN EQUAL OPPORTUNITY EMPLOYER**

## JPL/NASA VISITING SENIOR SCIENTIST BIOLOGICAL SYSTEMS RESEARCH Exobiology, Biospherics, CELSS

The Jet Propulsion Laboratory invites applications to the Visiting Senior Scientist Program in the area of Biological Systems Research (Exobiology, Biospherics and Controlled Ecological Life Support Systems). The position requires a PhD or equivalent research experience in one of the fields of Biological Systems Research (including molecular biology, chemistry, ecology, paleontology and plant physiology); a record of research publications in the refereed literature; a demonstrated ability to work with other scientists and to synthesize advisory information and strong communication skills.

Responsibilities include aiding in the planning and implementation of the Biological Systems Research and Analysis (R&A) Program within the Life Sciences Division at NASA Headquarters. Duties include continuing extensive contacts with the research community, conducting peer reviews of research proposals, recommending selection of investigations as well as assisting in the maintenance of a balanced and productive program within available budgetary resources. The appointee is expected to work closely with the managers at several NASA centers and to advise potential investigators from the NASA centers and the university community how their plans relate to the NASA program as well as to assure that R&A activities are supportive of current and planned life sciences missions.

Frequent travel and residence near NASA Headquarters (in the Washington, D.C. area) will be required. Tenured faculty members are the preferred choice with a desired start date sometime in the summer of 1988. Appointees must be U.S. Citizens or Permanent Residents and are expected to return to their home institution following their NASA assignment. Please provide curriculum vitae, bibliography and the names of four references to: **Dr. Harry Ashkenas 180-900, Dept. U31, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91109, (818) 354-8251.** An Equal Opportunity Employer.

"There's only one."

**JPL**

Jet Propulsion Laboratory  
California Institute of Technology

## POSITIONS OPEN

**ASSISTANT/ASSOCIATE PROFESSOR—BIOLOGY:** Tenure-track position available August 1988 to teach general biology for non-majors, zoology, and course in specialization. Ph.D. degree with specialization in invertebrate zoology and/or developmental biology and/or animal behavior. Send letter of application, curriculum vitae, all undergraduate and graduate transcripts, and three letters of recommendation by 15 February 1988 to: **James Schlough, Department of Biology, University of Wisconsin-Whitewater, Whitewater, WI 53190.** *Women, members of minority groups, persons with disabilities and Vietnam-Era veterans are encouraged to apply. Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT/ASSOCIATE PROFESSOR OF ZOOPHYSIOLOGY

The Institute of Arctic Biology and the Department of Biology and Wildlife, University of Alaska Fairbanks join to invite applications for a tenure-track faculty appointment at the assistant or associate professor level beginning 1 September 1988. Applicants should have a record of successful research in an area of environmental physiology of animals and have experience in teaching biology and environmental physiology at undergraduate and graduate levels. We encourage applicants who have an organismal perspective and the potential to establish a combination of field and laboratory research with an arctic/subarctic emphasis. Applicants should send their curriculum vitae, including reprints of publications, a statement of research and teaching interests, graduate and undergraduate transcripts, and three letters of reference by 1 March 1988 to: **Dr. Robert White, Chairman, Zoophysiology Search Committee, Institute of Arctic Biology, 311 Irving Building, University of Alaska Fairbanks, Fairbanks, AK 99775-0180. Telephone: 907-474-7028.** *The University of Alaska is an Equal Opportunity/Affirmative Action Employer and Education Institution.*

**BIOLOGIST: ASSISTANT PROFESSOR.** The Department of Biology, State University of New York (SUNY) College at Fredonia invites applications for a tenure-track position available September 1988. Qualifications include a Ph.D. in biological sciences and a commitment to undergraduate instruction and research. Experience in developmental biology is preferred. The College has a student population of about 5,000 undergraduates and is located near Lake Erie, 40 miles from Buffalo. The Department has 10 faculty and about 250 undergraduate majors in biology, medical technology, and recombinant gene technology. Master's degrees are offered in biology and biology education. Applications should include curriculum vitae, three letters of recommendation, and a letter explaining teaching and research interests. Send applications to: **Search Committee, Department of Biology, SUNY College at Fredonia, Fredonia, NY 14063.** Application deadline is 12 February 1988. *SUNY College at Fredonia is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*



Agricultural Research Service  
United States Department of Agriculture

**BIOLOGIST (ELECTRON MICROSCOPY SPECIALIST),** Department of Agriculture (USDA), Agricultural Research Service (ARS), Eastern Regional Research Center, Wyndmoor, PA. ARS is seeking a problem-solving scientist responsible for operation of the EM center and application of EM and associated techniques to a multidisciplinary program of agricultural research. Candidate must have skill in i) EM operation, maintenance, and sample preparation and ii) one or more advanced microscopy techniques, e.g., immunological tagging, image analysis, and element analysis EM. Advanced degree is desirable. Must be U.S. citizen. Salary is commensurate with experience (\$22,000 to \$42,000 per annum). For information on the program or position, contact: **Ms. Susan Jones at 215-233-6645.** For information on application procedures/forms contact: **Mr. Lee Triplett, 301-344-1863,** by 25 January 1988. Applications in response to this advertisement should be marked 7EC0658 and must be received by 8 February 1988. *An Equal Opportunity Employer. Women and minorities are encouraged to apply.*

## POSITIONS OPEN

**ASSOCIATE RESEARCH SCIENTIST.** Perform research in the development of nuclear magnetic resonance (NMR) methods in medicine. Perform high resolution multinuclear studies of tumor cells in suspension as well as NMR imaging. Perform studies of implanted tumors in animals. Devise and supervise quality control procedures on magnetic resonance imaging (MRI) system, and implement novel methods for non-invasive diagnosis of cancer, including the synthesis and characterization of NMR contrast agents for tumor-specific enhancement. Requires Ph.D. in chemistry. Also, must have detailed knowledge of nuclear magnetic resonance (NMR), spectroscopic methods, inorganic and organometallic chemistry, and chemical synthesis, as evidenced by at least one doctoral level course or an authored article for professional publication dealing with each discipline. Requires demonstrated ability to synthesize and handle inorganic compounds and familiarity with experimental methods in NMR spectroscopy. Monday to Friday, 9:00 a.m. to 5:00 p.m. \$13.50 per hour. Please send résumé to: **Job Service Technical Unit, Connecticut Department of Labor, 200 Folly Brook Boulevard, Wethersfield, CT 06109.** Refer to Job Order #3005389.

**BIOLOGIST.** Tenure-track assistant professor beginning 15 August 1988. Ph.D. required with demonstrated ability in molecular biology. Teaching emphasized. Send curriculum vitae, transcripts and three letters of recommendation before 15 February 1988 to: **Search Committee, Biological Sciences, Salisbury State College, Salisbury, MD 21801.** *Salisbury State College is an Affirmative Action/Equal Opportunity Employer. Qualified women, minorities, and disabled persons are encouraged to apply.*

### BIOLOGISTS

The Vassar College Department of Biology seeks two broadly trained biologists, one in physiology and metabolism and the other in genetics. In addition, these positions may involve teaching electron microscopy, nutrition, human sexuality, and neuroscience. Ph.D. required, postdoctoral and teaching experience desirable; contract period negotiable, may be up to 3 years. *Vassar is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.* Please submit curriculum vitae and three letters of recommendation to: **Donald B. Williams, Box 251, Department of Biology, Vassar College, Poughkeepsie, NY 12601** by 22 February 1988.

The Biology Department of City College plans to hire one or two **BIOLOGISTS** on tenure-track lines for 1 September 1988. Candidates are expected to utilize molecular approaches in their research. Areas of preference are developmental neurobiology gene structure and function, or the evolution of regulatory systems. Candidates will join an NIH-sponsored Research Center housed in the Science Division of the College and will also participate in teaching undergraduate and graduate courses in biology. At least 2 years of postdoctoral experience are required and candidates are expected to develop a vigorous research program. Rank and salary are open to negotiation. Please send curriculum vitae and a list of three references by 15 February 1988, to: **Dr. Linda H. Mantel, Chair, Department of Biology, City College of CUNY, Convent Avenue and 138th Street, New York, NY 10031.** *An Affirmative Action/Equal Opportunity Employer M/F.*

### CELL BIOLOGY AND MICROBIOLOGY

The Department of Biological Sciences at the University of New Orleans invites applications for two anticipated tenure-track **ASSISTANT PROFESSOR** positions, one in cell biology (August 1988) and one in microbiology (January 1989). Postdoctorate required. Must initiate independent research program. Cell biologist expected to apply modern microscopic techniques to problems in cellular or developmental biology; teaching includes a basic course in histology. Microbiologist expected to apply modern molecular techniques to microbial systems; teaching includes a basic course in microbiology. Applicants should send résumé and statement of research goals and have three letters of reference sent to: **Dr. G. R. Welch, Department of Biological Sciences, University of New Orleans, New Orleans, LA 70148.** Deadline: 15 February 1988. *An Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### TWO BIOLOGY FACULTY POSITIONS

Applications are invited for two faculty positions beginning 1 September 1988.

(i) **DEVELOPMENTAL BIOLOGIST** (tenure-track assistant professorship). Preference will be given to individuals with research interests in endocrinology and/or neurobiology. Candidates should have postdoctoral experience, a background in the use of modern molecular techniques, and a commitment to establishing an externally funded research program. A willingness to participate in both undergraduate and graduate training programs is expected. Teaching responsibilities will include the development of an advanced course in the applicant's area of specialization.

(ii) **BIOLOGY LECTURER** (non-tenure-track). Ph.D. in biology required and teaching experience at the university level preferred. Evidence of ability to teach, supervise, and coordinate lectures and laboratories in freshman biology course sequence is a requisite.

Review of applications will begin by 15 February 1988 and continue until positions are filled. Candidates should submit a letter of application, curriculum vitae, and names of three references to: **Dr. Daniel D. Jones, Department of Biology, University of Alabama at Birmingham, University Station, Birmingham, AL 35294.**

*The University of Alabama at Birmingham is an Equal Opportunity/Affirmative Action Employer.*

### CARDIOVASCULAR SCIENTIST

The American Heart Association National Center (AHA) (Dallas, Texas) has a staff position open for a cardiovascular scientist. This person will provide science information, interpretation, coordination and guidance in its use for all AHA components and programs, including negotiating consensus among science volunteers on issues in cardiovascular science and medicine. The person will also provide scientific expertise to special task forces and committees and will assist in the design, development and initiation of special science projects. Project responsibilities may include literature studies and the writing of statements and reviews. The candidate must have a Ph.D. or equivalent degree in a discipline such as cardiovascular science, neuroscience of molecular biology. A minimum of 3 years of postdoctoral experience is also necessary. The salary range is from \$40,000 to \$50,500 annually. Please send curriculum vitae and the names of three references to: **American Heart Association National Center, Attention: National Center Staffing Coordinator, 7320 Greenville Avenue, Dallas, TX 75231.** Applications must be received by 15 February 1988.

### CELL BIOLOGIST FOR CENTRE FOR BIOMATERIALS UNIVERSITY OF TORONTO

The Centre for Biomaterials of the University of Toronto is seeking an appropriately qualified individual to fill a new created position to head up a tissue culture laboratory to study cell-biomaterials interactions. This study forms part of a broader Biomaterials program within the Ontario Centre for Materials Research (OCMR). The OCMR has been recently established by the Government of Ontario as a Centre of Excellence to promote fundamental and applied research in advanced materials technologies.

Professorial rank (contractually limited) or research associate dependent on qualifications and experience. Preferred candidates will have formal training in cell biology or related discipline with experience in tissue culture techniques and biomaterials. The person appointed will be responsible for organizing the cell culture facility and will be expected to participate in collaborative studies with other members of the Centre for Biomaterials. On-going activities within the Centre for Biomaterials include studies on novel materials for orthopedic, dental and cardiovascular applications and the development of biosensors and microencapsulation of mammalian cells.

Applications should be sent together with curriculum vitae and the names of three referees to: **Dr. D. C. Smith, Director, Centre for Biomaterials, University of Toronto, 124 Edward Street, Toronto, Ontario M4T 1N9.** The deadline for applications is 28 February 1988.

*In accordance with Canadian Immigration requirements this advertisement is directed toward Canadian citizens and permanent residents. The University of Toronto encourages both men and women to apply.*



### ACADEMIC RESEARCH ENHANCEMENT AWARD

Academic Research Enhancement Awards (AREAs) provide funding for feasibility studies, pilot studies and other small-scale health related research projects. Awards are made in amounts of up to a total of \$75,000 in direct costs (plus applicable indirect costs) for a period of up to three years; however, no more than \$35,000 in direct costs may be awarded for any one year.

#### Eligibility Requirements

##### 1. Applicant Institutions

All domestic institutions offering baccalaureate or advanced degrees in the sciences related to health are eligible, except those that have received an NIH Biomedical Research Support Grant (BRSG) of \$20,000 or more per year for four or more years during the period from FY 1982 through FY 1988.

##### 2. Applicant Principal Investigators

Must not have active research grant support (including an AREA) from either NIH or the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) at the applicant institution at the time of award of an AREA grant.

May not submit a regular NIH or ADAMHA research grant application for essentially the same project as a pending AREA application.

Are expected to conduct the majority of their research at their own institution, although limited access to special facilities or equipment at another institution is permitted.

May not be awarded more than one AREA grant at a time nor be awarded a second AREA grant to continue the research initiated under the first AREA grant.

#### Award Criteria

Funding decisions are based on the research project's scientific merit and relevance to NIH programs, and the institution's contribution to the undergraduate preparation of doctoral-level health professionals. Among projects of essentially equivalent scientific merit and program relevance, preference will be given to those submitted by institutions that have granted baccalaureate degrees to 25 or more individuals who, during the period 1977-1987, obtained academic or professional doctoral degrees in the health related sciences.

#### APPLICATION RECEIPT DATE

June 22, 1988

Anticipated Number of Awards:  
Approximately 125 grants

For information and application materials, contact:

Office of Grants Inquiries  
Division of Research Grants  
National Institutes of Health  
Westwood Building, Room 449  
Bethesda, Maryland 20892  
(301) 496-7441

Integrated Genetics, Inc., a recognized leader in biotechnology, develops therapeutic and diagnostic products for the healthcare industry. Our continued success leads to these new opportunities.

### DIRECTOR/PROTEIN CHEMISTRY

An outstanding protein chemist is needed to direct Protein Chemistry at IG. Involves managing over 30 professionals in the areas of characterization, purification, scale-up, analytical chemistry, and protein engineering. Successful candidate must possess a broad knowledge in the above areas with a track record of successful research in at least one. Requires a Ph.D. with at least 7 yrs' postdoctoral experience, preferably in industry. Excellent management skills essential.

### RESEARCH MANAGER

Lead work on Hemopoietic Growth Factors from conception to scale-up. Work includes supervision cloning of and assay groups, overseeing production and purification of clinical-grade material, and interacting with all internal and external collaborators. Requires a Ph.D. and 7 yrs' postdoctoral experience in molecular and cellular biology, preferably with emphasis on characterization of growth factors and hands-on experience with cDNA cloning of low abundance mRNAs. Strong management skills required. Industrial experience preferred.

**Integrated Genetics offers an attractive compensation and benefits package, including equity participation. For immediate consideration, please send your resume to David Nikka, Human Resources, Dept. S18, Integrated Genetics, Inc., 31 New York Avenue, Framingham, MA 01701.**

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# INTEGRATED GENETICS

### Harvard Graduate School of Education Tenure Position in Teaching and Learning

The Harvard Graduate School of Education seeks a tenured faculty member with the following qualifications: dedication to the study of learning and teaching; research and publications using a disciplinary or other theory-based mode of inquiry (e.g. psychology, philosophy, history, cognitive science); ability to apply principles in a specific domain (e.g. math, the arts, social studies) as well as the potentiality for cross-curricular relevance; concern for learning within the K-12 years of compulsory education, as well as the potentiality for cross-age relevance (pre-school to adult); and the demonstrated ability to work with teachers to relate theory and practice, and to apply general principles to decisions about specific learners. **Application deadline: February 1, 1988. To apply, please send letter of application, curriculum vitae, two recent publications, and three letters of reference to: Professor Courtney B. Cazden, Chairperson, Teaching and Learning Search Committee, Harvard Graduate School of Education, 122 Longfellow Hall, Cambridge, MA 02138.**

### Administrative/Faculty Director of Teacher Education

The Harvard Graduate School of Education seeks a director of teacher education at the administrative/faculty rank of lecturer, senior lecturer, assistant, associate or tenured professor. Qualifications include: ability to assume intellectual leadership and administrative responsibility for the teacher education programs and to teach in them; demonstrated interest in the development and strengthening of model teacher education programs; specialist's knowledge of a subject-matter discipline (and teaching thereof); and generalist's capacity to contribute significantly to the national debate about teacher education.

At present, teacher education programs (all at the secondary level) include: the Undergraduate Teacher Education Program, the Teaching and Curriculum Program, and the Midcareer Math and Science Program. **Application deadline: February 1, 1988. To apply, please send letter of application, curriculum vitae, and three letters of reference to: Professor Donald Oliver, Chairperson, Teacher Education Search Committee, Harvard Graduate School of Education, 122 Longfellow Hall, Cambridge, MA 02138.**

Harvard University is an Affirmative Action/Equal Opportunity Employer.

# HARVARD UNIVERSITY

**POSTDOCTORAL FELLOWSHIP  
IN MOLECULAR GENETICS  
NATIONAL INSTITUTE ON AGING  
NATIONAL INSTITUTES OF HEALTH  
DEPARTMENT OF HEALTH AND  
HUMAN SERVICES**

Position available for a Staff/Senior Staff Fellow in the Laboratory of Molecular Genetics of the NIA. Salary \$20,000 to \$40,000 depending on qualifications. Current areas of research include: genetic analysis of lymphokine and hormone changes with age; identification of age-specific brain transcripts; isolation of antiproliferative mRNAs and study of age-related genes in transgenic organisms. Applicant should have Ph.D and/or M.D. degree. Candidates for Staff Fellowships should have less than 3 years of post-doctoral experience and candidates for Senior Staff Fellowships should have 3 to 7 years of post-doctoral experience. Send curriculum vitae and bibliography to Dr. Edward Schneider, c/o Personnel Office, National Institute on Aging, Gerontology Research Center, 4940 Eastern Avenue, Baltimore, Maryland 21224. For further information contact Ms. Barbara Hughes, 301-550-1733.

Applications must be postmarked no later than April 25, 1988.

**U.S. CITIZENSHIP IS REQUIRED.  
NIH IS AN EQUAL OPPORTUNITY EMPLOYER**

**RESEARCH ASSOCIATE  
MOLECULAR BIOLOGY**

**Amgen**, an industry leader in advanced biotechnology, develops products for a wide variety of applications. Recent progress has created an opportunity for a Research Associate in our Specialty Chemicals and Enzymes Group.

Qualified applicants should have a BS or MS in Molecular Biology, Biochemistry or a related discipline and 2-4 years of experience in Prokaryotic Molecular Biology or Molecular Genetics. Experience with basic molecular biological techniques such as library construction, vector construction, immunoblot analysis and enzyme assays is essential. Familiarity with Gram positive organisms is highly desirable.

**Amgen** offers a stimulating and challenging research environment as well as an attractive location one hour northwest of Los Angeles. **Amgen** also offers an excellent compensation and benefits package. Qualified applicants should send a resume and a list of 3 references, in confidence, to:

**Recruitment, Dept. #23  
AMGEN  
1900 Oak Terrace Lane  
Thousand Oaks  
CA 91320**



Equal Opportunity Employer

**PULMONARY  
PHARMACOLOGIST**

BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc., a major innovator in the research, development and marketing of ethical drugs, has the following opening in the Department of Pharmacology. This position is located at our Research and Development Facility in DANBURY, CONNECTICUT.

Responsibilities include the performance of novel research, development of state-of-the-art techniques for the measurement of pulmonary function and inflammation, development of in-vivo models of acute and chronic pulmonary inflammation, characterization of inflammatory processes using in-vitro assays, participation on multidisciplinary teams, and performance of basic research aimed at the discovery of specific mechanistic approaches to the design of new therapeutic agents.

Requirements include a Ph.D. in pulmonary physiology, pharmacology, immunology or equivalent with expertise in measurement of pulmonary function, mechanics and/or inflammation. Expertise in the pulmonary effects of the metabolites of arachidonic acid, biochemical pharmacology and/or the neuropeptides is desired but not required. Peptides is desired but not required.

BOEHRINGER INGELHEIM offers a highly competitive compensation and benefits package, relocation assistance, an excellent work environment and the opportunity to have your contributions recognized.

For confidential consideration, please forward your curriculum vitae and salary requirements to: Dept. JC-1JP, BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc., 90 East Ridge, P.O. Box 368, Ridgefield, CT 06877. We are an equal opportunity employer m/f/h/v.



**Boehringer  
Ingelheim**



**University of Pennsylvania  
Dean of the School of Dental Medicine**

Nominations and applications are invited for the position of Dean of the University of Pennsylvania School of Dental Medicine. Correspondence should be directed to Dr. Norton S. Taichman, Chair, Dean Search Committee, University of Pennsylvania, 121 College Hall, Philadelphia, PA 19104-6382. The Committee requests that applications and nominations be submitted by February 28, 1988.

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# Postdoctoral Associate Senior Scientist

## Explore A Position Today, With The Industry Of The Future.

The Agricultural Division of CIBA-GEIGY Corporation, one of the world's foremost agricultural and specialty chemicals companies, is respected for both the quality of its research and the highly accomplished scientists it attracts. To maintain our leadership position in biotechnology, we currently seek a Postdoctoral Associate and a Senior Scientist to join us at our Biotechnology Research Unit located in Research Triangle Park, North Carolina.

These two positions are available in the Plant Molecular Biology Department. The successful candidate for the Postdoctoral position will be a recent recipient of his/her doctorate in the area of biochemistry with a strong interest in plant sciences. Research experience in protein purification, enzymology, membrane fractionation and spectrophotometric techniques is desired. Candi-

dates for the Senior Scientist position should have a PhD in molecular biology and at least 2 years of postdoctoral experience. Research experience in plant gene expression is highly desirable.

Our state-of-the-art facilities in Research Triangle Park are conveniently located, with access to several outstanding universities. We offer an excellent salary and benefits package, and the opportunity to contribute to an innovative research program. For prompt and confidential consideration, forward curriculum vitae and a statement of research interests, to: Dr. Mary-Dell Chilton, CIBA-GEIGY Biotechnology Research, P.O. Box 12257, Research Triangle Park, North Carolina 27709.

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Science Serving Mankind

# CIBA-GEIGY

## RESEARCH OPPORTUNITIES

Bristol-Myers, Pharmaceutical Research and Development Division, is an internationally recognized leader in the discovery and development of innovative pharmaceutical agents. Currently we have three openings in the Screening and Biochemical Research Department at our new research facility located in Wallingford, Connecticut.

The screening and biochemical research department is primarily involved in research on novel systems for the detection of biological activities in both naturally occurring and synthetic materials. If you are attracted by the prospect of working in a demanding, multi-disciplinary environment, the following openings may be of interest to you:

**BIOCHEMIST** - Requires a PhD in Biochemistry with significant experience in the application of molecular biological techniques to biochemical problems. Appropriate post-doctoral experience would be a definite asset.

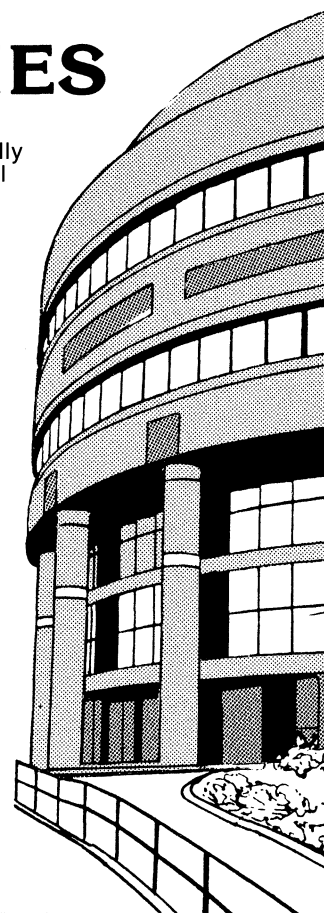
**CELL BIOLOGIST** - Requires a BS/MS in Biology or a related field and proven skills in primary mammalian cell culture. Additional experience with defined media and hybridomas is desirable.

**ORGANIC CHEMIST** - Requires a BS/MS in Chemistry with a minimum of two years experience in organic synthesis, preferably involving peptide synthesis and purification.

Bristol-Myers offers excellent salaries along with comprehensive benefits including relocation assistance. For confidential consideration, forward your resume, including salary history to: **Bristol-Myers Company, Pharmaceutical Research & Development Division, Dept. PD/SCI2, 5 Research Parkway, Wallingford, CT 06492. Principals only please.** An equal opportunity employer.

## BRISTOL-MYERS

Pharmaceutical Research & Development Division





## POSITIONS OPEN

### CHAIRMAN DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

The University of South Carolina School of Medicine invites applications and nominations for Chairman of the Department of Microbiology and Immunology. Candidates must have a doctorate degree in an appropriate discipline, an established and active research program, a commitment to medical and graduate education, and the ability to provide strong administrative leadership. The department has an active graduate program and faculty are currently funded to pursue research in: immunomodulation, immunophylogeny, membrane receptors, bacterial pathogenesis and inflammatory disease, bacterial adaptation and taxonomy, molecular biology, viral genetics and antivirals. Applicants should send curriculum vitae and the names of three references to: **Dr. Charles A. Blake, Chairman of the Search Committee, Department of Anatomy, University of South Carolina, School of Medicine, Columbia, SC 29208. An Equal Opportunity M/F Affirmative Action Employer.**

### CHAIRMAN PHYSIOLOGY AND BIOPHYSICS ALBERT EINSTEIN COLLEGE OF MEDICINE NEW YORK

The Albert Einstein College of Medicine invites applications and nominations for the Chairman of the Department of Physiology and Biophysics. Applicants must be qualified for appointment as tenured professor. A distinguished research program in an area related to physiology and/or biophysics is essential. The Chairman will be expected to further develop the research and academic programs of the Department. Substantial resources are available for development of the Department, including positions for new faculty members.

Qualified applicants should submit curriculum vitae, including at least three references by 29 February 1988 to: **Dr. V. L. Schramm, Physiology Search Committee, Department of Biochemistry, Albert Einstein College of Medicine of Yeshiva University, 1300 Morris Park Avenue, Bronx, NY 10461. Albert Einstein College of Medicine of Yeshiva University is an Equal Opportunity Employer.**

**CHAIRPERSON, ORAL HEALTH.** Requires D.D.S./D.M.D. (ADA-accredited programs only), post-graduate training in periodontics or dental public health, and significant research and teaching experience. Board certification/eligibility desirable. Must qualify for tenure. Must be eligible for Kentucky license. *University of Louisville is an Affirmative Action/Equal Opportunity Employer.* Send curriculum vitae and names of three references to: **Dr. D. L. Gambrall, School of Dentistry, University of Louisville, Louisville, KY 40292. Closing date 29 February 1988.**

### DEAN, SCHOOL OF MEDICINE EAST CAROLINA UNIVERSITY

East Carolina University, a constituent institution of The University of North Carolina, invites applications and nominations for the position of Dean of the School of Medicine. The School began its 4-year program in 1977, graduating its first class in 1981. It is fully accredited, and sponsors six individual doctoral programs. Present admitting class size is 72.

The Dean is the chief academic and administrative officer of the School, which is affiliated with the Pitt County Memorial Hospital, a 560-bed community and regional tertiary-care teaching facility. Primary care receives strong support in the School's clinical programs and in the curriculum, which is generalist- rather than subspecialty-centered.

Candidates should have a M.D. degree, a sound foundation in scholarship and science, demonstrated administrative and leadership skills, and keen desire for excellence in medical education and research. Application should be accompanied by curriculum vitae, bibliography, and the names and addresses of three references whom we can contact regarding the candidate's qualifications.

**H. Thomas Norris, M.D., Chairman, Search Committee for Dean of the School of Medicine, East Carolina University, 1N12 Brody Building, Greenville, NC 27858-4354. East Carolina University is an Equal Opportunity/Affirmative Action Employer.** Federal law requires documentation of identity and employability prior to final consideration for this position.

## POSITIONS OPEN

### CHAIRPERSON AND PATHOLOGIST-IN-CHIEF WAYNE STATE UNIVERSITY DETROIT MEDICAL CENTER

The Wayne State University School of Medicine and the Detroit Medical Center invites applications and nominations for the position of Chairperson of the Department of Pathology and Pathologist-in-Chief of the Medical Center. The applicant should be a highly qualified individual with nationally recognized credentials, academic administrative experience, and a commitment to teaching medical students, residents, and graduate students. An opportunity to appoint a number of new faculty members is available. Send letters of interest, curriculum vitae, and names of at least three references to: **Dr. Laurence Baker, Search Committee Chairperson, Director of Hematology and Oncology, P.O. Box 02188, Detroit, MI 48201.**

### DEPARTMENT HEAD MOLECULAR AND CELL BIOLOGY PENN STATE

Applications and nominations are invited for the Headship of the Department of Molecular and Cell Biology. Candidates are expected to have established national and international reputations for research and to have experience in teaching in areas represented by the Department. Administrative experience is desirable.

The Department contains 32 research faculty, 5 instructors, 8 technical support staff and approximately 85 graduate students and encompasses research and teaching programs in biochemistry, microbiology and molecular and cell biology. A Center for Cell Research on the effects of microgravity was recently established in the department with a grant from NASA. Strong interactions exist with the College of Agriculture, the Chemistry Department and with the recently established Biotechnology Institute.

Applications will be reviewed starting 1 February 1988, and continuing until the position is filled. Candidates should submit curriculum vitae and names of five references to: **Kenneth A. Johnson, Paul Berg Professor and Chairman of the Search Committee, Box 29SM, 211 Whitmore Laboratory, The Pennsylvania State University, University Park, PA 16802. An Equal Opportunity/Affirmative Action Employer.**

### DIRECTOR AND RESEARCH SCIENTIST MOUNTAIN AQUACULTURE CENTER OF WESTERN CAROLINA UNIVERSITY

The newly created Mountain Aquaculture Center is seeking applications for the two positions of Director and Research Scientist. Western Carolina University is one of the sixteen constituent institutions of the University of North Carolina and is located in the Southern Appalachians 20 miles from the Great Smoky Mountains National Park. Western Carolina University has been designated the center for trout aquaculture in North Carolina. The Center, through research and education in trout aquaculture, is committed to furthering the development of the North Carolina trout industry and to making a major contribution to economic development in the region.

Qualifications for the director include national stature as a scholar and leader in the field of fisheries biology, significant experience as an administrator, and proven ability to build upon a substantial financial base to further program development and to acquire external funds. Ph.D. required.

We seek a research scientist with recognized ability in the basic disciplines of genetics, nutrition, developmental biology, or physiology. Preference will be given to a scientist whose research program can lead to practical application in the trout industry. The Research Scientist will be expected to supplement a considerable personnel/equipment budget by obtaining external funds. Ph.D. required.

Applicants for the position of director or research scientist should send curriculum vitae, names and addresses of three references, and a statement of interests by 1 February 1988 to: **Dr. Frederick W. Harrison, MAC Search Committee, Department of Biology, Western Carolina University, Cullowhee, NC 28723.**

*Western Carolina University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### DEVELOPMENTAL BIOLOGIST

The College of Arts and Sciences of Widener University invites applications for a tenure-track position as assistant professor of biology, beginning 1 September 1988. Ph.D. is required. Undergraduate education is the primary emphasis of the position. Competence in comparative animal morphology is also desirable. Application deadline is 1 February 1988. Letters of application, complete curriculum vitae, and three letters of recommendation should be sent to: **Robert Morris, Biology Department, Widener University, Chester, PA 19013.**

### DIRECTOR: DNA DIAGNOSTIC LABORATORY

The Yale University Department of Human Genetics has a faculty position beginning 1 July 1988 for Director, DNA Diagnostic Laboratory. Must have M.D. or Ph.D. BE/BC, American Board of Medical Genetics desirable. Responsibilities include supervising a service laboratory using DNA-based techniques for diagnosis and carrier detection of genetic disorders. Expertise with gene-specific probes, RFLPs and molecular linkage analysis is required. Close collaboration with the department's clinical service will be an important part of the position. The individual's clinical role and opportunities for research will be tailored to interest and experience. Applicants should send curriculum vitae to: **Dr. M. R. Seashore, Search Committee, Yale University Department of Human Genetics, Box 3333, New Haven, CT 06510 before 15 February 1988. Yale University is an Equal Opportunity/Affirmative Action Employer.**

### ECOLOGY AND EVOLUTION

The Ecology and Evolution Group seeks an **ASSISTANT OR TENURED ASSOCIATE PROFESSOR** commencing September 1988 or as soon thereafter as possible. The appointee must have a strong record of research productivity and grant funding, and will contribute to the undergraduate and graduate teaching program. The appointee's area will be plant population or evolutionary biology. Salary and setup funds will be commensurate with rank and experience. Send curriculum vitae, research and teaching interests, and names of at least three referees to: **Sidney B. Simpson, Jr., Head, Department of Biological Sciences (M/C 066), University of Illinois at Chicago, Box 4348, Chicago, IL 60680. Closing date 15 March 1988. Appointment depends on availability of funds. The University of Illinois at Chicago is an Equal Opportunity/Affirmative Action Employer.**

**ENVIRONMENTAL MICROBIOLOGIST:** The Department of Civil Engineering at M.I.T. seeks applicants for a position at the assistant professor level in environmental microbiology. Experience in microbial transformations of environmental contaminants is required, and candidates with interests in groundwater are preferred. Applicants should send curriculum vitae and the names of three references to: **Professor Rafael Bras, 48-311, M.I.T., Cambridge, MA 02139. Closing date is 15 February 1988. MIT is an Equal Opportunity Employer.**

### EXTENSION SOIL, PLANT, AND WATER CHEMIST HEADQUARTERS: DAVIS CAMPUS

The University of California, Division of Agriculture and Natural Resources Cooperative Extension is seeking a career-track academic candidate to: (i) serve as Director of two extension labs and be responsible for development of laboratory procedures, (ii) research analytical methods, produce computer programs and mathematical models, and (iii) train lab personnel and work with extension advisors and specialists in using diagnostic data. Ph.D. in soil or plant science or related field with thorough training in analytical chemistry. Proven ability to conduct applied research, preferably field research. Lab procedure experience with a minimum of 5 years of experience in soil, plant, and water analysis. *Assure Affirmative Action in development and delivery of programs.* Salary in the associate agronomist rank. Contact: **Cooperative Extension Personnel, University of California, Berkeley, CA 94720. Telephone: 415-644-4320. Close: 12 February 1988. Refer to A-86-135-R.**

*Affirmative Action/Equal Opportunity Employer M/F/H.*

## RESEARCH

# SCIENTIST

California Biotechnology Inc., a leading biotechnology company engaged in the development of human therapeutics, has an opening for a Scientist to work in our Drug Delivery group.

We are seeking an individual who is interested in the novel delivery of protein and peptide therapeutics. Responsibilities will include the development of nasal formulations using our proprietary Nazdel® delivery technology, detailed physical-chemical characterization of protein/peptide of formulations, investigations into the mechanisms of protein transport across mucous membranes and alternate dosage form design. The applicant should possess a Ph.D. in Pharmaceutical Chemistry or Physical Biochemistry. Post-doctoral experience is preferred but not required.

We offer a stimulating work environment with a competitive compensation and benefits package. For prompt consideration, please submit your curriculum vitae with 3 names of reference to: **California Biotechnology Inc., Human Resources LM-BL, 2450 Bayshore Parkway, Mountain View, CA 94043.** No telephone calls, please. An equal opportunity employer.

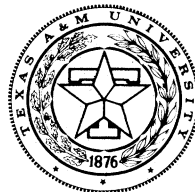
## CAL BIO

## NATIONAL INSTITUTES OF HEALTH BIOMEDICAL ENGINEERING AND INSTRUMENTATION BRANCH

### DIVISION OF RESEARCH SERVICES

An APPLIED PHYSICIST is sought who will take the initiative in developing collaborative research projects with biomedical investigators in the NIH Intramural Program. Applicant must also have the capability to respond effectively in consultations, and to creatively implement solutions for occasional short-term research requirements. Strong experimental skills are desired. The position is in the Mechanical Engineering Section which consists of five Ph.D.'s and three visiting postdoctoral staff members. Appointment is to a Staff Fellow position (\$32,567/annum) or, if applicant has more than 3 years post Ph.D. experience, to a Senior Staff Fellow (\$38,727/annum position. Duration of appointment is 2 years, with multiple one year renewals possible. U.S. citizenship required. Please send curriculum vitae and the names of three references to: Seth Goldstein, Sc.D., Chief, Mechanical Engineering Section, Building 13, Room 3W13, National Institutes of Health, 9000 Rockville Pike, Bethesda, MD. 20892.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER



## RESEARCH POSITIONS IN PLANT CELL AND MOLECULAR BIOLOGY

The Department of Biology at Texas A&M University has vigorous research programs in plant molecular and cell biology. The following positions are available immediately in the laboratories of the indicated faculty members:

**Postdoctoral Research Associate.** Brome Mosaic Virus replication. This system is one of the very few for which a cell-free replicase system exists. Duties involve site-directed mutagenesis of specific regions of the BMV genome and analysis of these mutants *in vitro* and *in vivo*. Familiarity with viral systems is preferred. Contact: Dr. Timothy C. Hall.

**Postdoctoral Research Associate.** Molecular biology of plant lipid biosynthesis. Experience in biochemical methods is required. Experience in the analysis of lipids or in recombinant DNA techniques is preferred but not required. Contact: Dr. Terry L. Thomas.

**Postdoctoral Research Associate.** Isolation and analysis of tissue specific monocot genes. Experience in recombinant DNA techniques and DNA sequencing are required; additional experience in plant gene transfer methods is preferred. Contact: Dr. Timothy C. Hall.

**Postdoctoral Research Associate.** *Cis* and *trans*-acting factors involved in the ontogenic control of plant gene expression. Experience in recombinant DNA techniques and DNA sequencing are required; additional experience in plant gene transfer methods of analysis of DNA-protein interactions is preferred. Contact: Dr. Terry L. Thomas.

**Postdoctoral Research Associate.** Analysis of *trans*-acting factors involved in the expression of embryo-specific plant genes. Experience in recombinant DNA techniques and DNA sequencing are required; additional experience in plant gene transfer methods or analysis of DNA-protein interactions is preferred. Contact: Dr. Timothy C. Hall.

**Postdoctoral Research Associate.** Transformation and regeneration of sunflowers. Experience in plant tissue culture required; experience in *Agrobacterium* mediated transformation and electroporation preferred but not essential. Opportunity to learn additional techniques in plant cell and molecular biology. Contact: Dr. Craig L. Nessler.

**Research Assistant.** Regulation of gene expression in plant development. B.S. in microbiology or biochemistry required. An M.S. degree in one of these areas or one to two years research experience using recombinant DNA techniques preferred. Contact: Dr. Timothy C. Hall.

**Research Assistant.** Production of transgenic monocot and dicot plants to facilitate the analysis of plant gene structure and function. B.S. degree in microbiology, biochemistry, botany or biology required. Cell culture experience required, preferably plant cell culture. Contact: Dr. Timothy C. Hall.

Send applications, including a C.V. and the names of three references with addresses and phone numbers, to the contact person for each position at the following address: **BIOLOGY DEPARTMENT, TEXAS A & M UNIVERSITY, COLLEGE STATION, TX 77843-3258**

## Vice President, Research and Development ESKAYEF, Ltd., Bangalore, India

Smith Kline & French Laboratories is seeking an outstanding scientist to direct an established Research and Development organization currently comprised of about 40 scientists at its subsidiary company, ESKAYEF, Ltd., in Bangalore, India. ESKAYEF is located on an extensive, private campus 20 km outside Bangalore. This research group will be devoted to the discovery of novel natural products from fungi and actinomycetes. The discovery of novel compounds will be guided by state-of-the-art mechanism-based bioassays relevant to important targets in cardiovascular, inflammatory, viral and neoplastic diseases. The Vice President, R&D, will have overall responsibility for research at ESKAYEF and will coordinate drug discovery efforts with scientists at SK&F Laboratories in Philadelphia, PA.

The successful candidate must have a Ph.D. in biochemistry, pharmacology, cell biology, or a closely related field plus at least two years of formal postdoctoral training. Also required is at least six years of professional experience in academic or industrial research with a proven record of productivity as demonstrated by a consistent publication record. Expertise in biochemistry and biochemical pharmacology as well as administrative and managerial capabilities must be demonstrated. Research experience in drug discovery and natural product evaluation is desirable. Excellent communication skills are required with fluency in both Hindi and English.

We offer an excellent compensation and benefits program as well as an excellent relocation package. For confidential consideration, send your curricula vitae and names of three references to both SK&F Laboratories and to ESKAYEF, Ltd., at the addresses below:

- Robert F. Obst, Manager, Personnel Relations  
R0120  
Smith Kline & French Laboratories  
Research and Development Division  
P.O. Box 1539  
King of Prussia, PA 19406-0939
- Personnel Department  
ESKAYEF, Ltd.  
Devanahalli Road  
Off Old Madras Road  
Bangalore 560-049  
India

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# SK&F

A SmithKline Beckman Company

## MICROBIOLOGY Research & Development

DIFCO Laboratories seeks scientists/developers for its new, state-of-the-art, research and development facility in Ann Arbor, Michigan. A wide range of applicants are sought, from limited to extensive experience.

### Scientists, Immunodiagnostics

Scientists are sought with backgrounds and training in microbial immunodiagnostics to direct groups involved in development of rapid infectious disease tests. Candidates should have a Ph.D. with 0-10 years of postdoctoral experience.

### Scientists, Bacteriology and Microbial Metabolism

Positions require fundamental training in microbiology relating to microbial physiology, genetic engineering, clinical microbiology, or food microbiology. Candidates should have a M.S. or Ph.D. with solid training in microbiology and/or biological chemistry.

### Engineer, Process Development

An engineer with industrial manufacturing experience is sought to develop a unit concerned with engineering design of new products and the manufacturing processes associated with them. Desired elements are a background in mechanical engineering and biomedical manufacturing experience.

Difco Laboratories offers a competitive salary in a company poised for substantial growth. Please send your resume and salary requirements to:



Quality Products  
for Microbiology

D.J. Schafer  
DIFCO LABORATORIES  
Research and Development Center  
1180 Ellsworth Road  
Ann Arbor, MI 48108 USA  
EOE M/F

## POSTDOCTORAL FELLOWSHIPS

St. Jude Children's Research Hospital, a large multidisciplinary research institute, has openings for postdoctoral investigators in the basic biomedical sciences. Fellowships are available in molecular genetics, tumor cell biology, pharmacology, biochemistry, immunology and other related disciplines. Specific areas of investigation include proto-oncogenes and growth factors, genetic control of cellular differentiation, biochemical basis of multiple drug resistance in childhood neoplasms, regulatory properties of viral proteins, macrophage immunobiology, phospholipid metabolism, and cellular messenger systems. Successful applicants train with internationally recognized preceptors in a fully equipped facility and are given the opportunity to develop as independent investigators. Annual salaries begin at \$20,000 and are commensurate with experience.

Application forms and a more detailed description of the training program can be obtained from:

Ms. Evonne Toland, Director's Office  
St. Jude Children's Research Hospital  
P.O. Box 318  
Memphis, TN 38101

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SJCRH

## BIOCHEMIST/ MOLECULAR BIOLOGIST

Merck Sharp & Dohme Research Laboratories, a world leader in the development of ethical pharmaceuticals for human and animal health, currently has two immediate openings for biochemists/molecular biologists in its Department of Molecular Pharmacology and Biochemistry.

These individuals should possess a B.S. or M.S. and have extensive experience in tissue culture and molecular biological techniques such as screening of DNA and genomic libraries, isolation of DNA and RNA, Southern, Northern and Western blotting and DNA sequencing. The positions involve the use of cell culture and recombinant DNA technology to study the regulation of cholesterol biosynthesis. This is an excellent opportunity for motivated individuals to continue their scientific growth and development, with the potential for gaining considerable independence.

Merck Sharp & Dohme Research Laboratories are located in Rahway, New Jersey approximately 25 miles from New York City. Our salaries, benefits, and growth potential are excellent.

Interested candidates should submit their resume with the names of three references and salary requirements to: Ms. Jacqueline A. Eiermann, Merck & Co., Inc., P.O. Box 2000, Rahway, New Jersey 07065.

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Merck & Co., Inc.

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State

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ATTACH  
LABEL  
HERE

## UCLA

The Department of Physiology invites applications for tenure track faculty positions at the level of

### ASSISTANT PROFESSOR

Outstanding candidates working in any area of contemporary physiology will be considered, but those in smooth muscle, reproduction and development, endocrinology, sensory transduction, and the cardiovascular system are encouraged to apply. Successful candidates are expected to have a Ph.D. or M.D. with post-doctoral experience, to provide evidence that they can pursue a vigorous, independent research program supported by extramural grants, to be experienced in state-of-the-art techniques, and to participate fully in our teaching program.

Resources are available for start-up funds, and an excellent environment exists for building a research program within a large and interactive research community. Interested scientists should send their curriculum vitae, a statement of present and future research interests, and names of three references to: **Dr. Ernest M. Wright, D.Sc., Professor and Chairman, Department of Physiology, UCLA School of Medicine, Los Angeles, CA 90024-1751.**

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

### SUMMER 1988 TEN ENVIRONMENTAL SCIENCE AND ENGINEERING FELLOWSHIPS

#### Applications Invited

The American Association for the Advancement of Science (AAAS) invites applications for ten environmental science and engineering fellowships available for summer 1988. The fellows will work closely with the Environmental Protection Agency (EPA), Office of Research and Development, and other program offices, in Washington, DC, and assist in identifying and assessing the significance of long-range environmental problems and opportunities. The 10-week appointments are scheduled for 6 June through 12 August 1988. The awards will be announced prior to the end of April 1988.

Postdoctoral to mid-career scientists, engineers, and other appropriate professionals are encouraged to apply. Candidates may be from the physical, biological, or behavioral sciences, or any field of engineering or other relevant professional fields. They are expected to be critical thinkers, articulate, adaptable, and able to work with a variety of people from different professional backgrounds.

The 1988 Environmental Fellows will receive a taxable stipend of \$700 per week and a nominal additional amount for temporary relocation expenses and travel in connection with the fellowships.

A detailed, future-oriented research project will be conducted by each fellow which is of mutual interest to him or herself and the EPA. A project report will be submitted at the completion of the summer's work. Typical areas of research interest within EPA include: environmental risk assessment; biological pesticides; acid deposition; mobile source air pollution; oxidants, gases and particles; municipal waste water and spills; drinking water; hazardous waste; chemical testing and assessment; pesticides; radiation; and energy.

For further information and specific application requirements contact:

**Lisbeth A. Levey**  
Environmental Science and Engineering Fellows Program  
American Association for the Advancement of Science  
1333 H Street, NW, Washington, DC 20005  
Telephone: 202-326-6600

*Deadline for applications is 1 March 1988.*



National Research  
Council Canada

Conseil national  
de recherches Canada

## BIOTECHNOLOGY RESEARCH INSTITUTE (Montreal, Quebec)

The Biotechnology Research Institute, a division of the National Research Council of Canada, is located in Montreal. It will employ approximately 240 people and will host up to 200 researchers from industries, universities and other research organizations. The institute pursues generic research, both basic and applied, aimed at finding solutions to general problems related to industrial development of biotechnology. The Institute is presently looking for scientists and engineers.

### Applied Microbiologists (RB86-51)

The Applied Microbiology Group of the Institute requires microbiologists with backgrounds in fermentation using bacteria (aerobic, anaerobic) yeasts and filamentous fungi. The duties include identification and development of promising microbial products and processes, selection improvement and preservation of strains (in collaboration with genetic engineers), and optimization of cultivation media and conditions (in collaboration with biochemical engineers).

### Engineer—Large-Scale Separation (RB86-56)

To develop purification processes up to pilot scale and to conduct generic research on recovery and processing techniques applicable to biotechnology. Duties include characterization and improvement of techniques for separation and purification of fermentation and cell culture products as well as scale-up and process engineering studies. Research projects are to be conducted on various unit operations including chromatography, membrane-based systems, extraction and solid-liquid separations.

Candidates for these positions should have a Ph.D., in microbiology, biochemistry, chemical engineering, biochemical engineering or in a relevant discipline and at least 2 years of post-doctoral experience. Experience in applied research and technology transfer will be a definite asset. Both English and French are working languages at the Institute.

**SALARY:** Benefits are fully competitive and salary will be commensurate with qualifications and experience.

Apply in writing, giving complete details of education and experience to: **The Manager, Employment Office, National Research Council of Canada, Ottawa, Canada, K1A 0R6.** In reply, please quote the appropriate reference number.

Canada

## POSITIONS OPEN

**ECOSYSTEMS ECOLOGIST.** Assistant professor, tenure-track position available August 1988. Teaching in environmental studies and specialty area. Active terrestrial or aquatic research program development expected. Suitable specialties include ecosystems modeling, nutrient cycling or trophic-level interactions. Ph.D. required. Environmental studies teaching experience and/or postdoctoral research experience preferred. Send curriculum vitae, reprints, statement of goals, and three letters of recommendation by 15 February 1988 to: **Dr. Frank deNoyelles, Director, Environmental Studies Program, 6012 Haworth Hall, The University of Kansas, Lawrence, KS 66045. Equal Opportunity Employer/Affirmative Action.**

**FACULTY—NEUROCHEMICAL PHARMACOLOGIST.** A tenure-track position for a neuropharmacologist with experience in immunocytochemical neuroanatomy, electrophysiology and/or neurological pathophysiology and behavior is available in the Department of Basic Sciences, University of Illinois College of Medicine at Peoria. Responsibilities: participate in curricular development and in teaching pharmacology to medical students and residents; conduct original investigations into neurochemical, electrophysiological and/or immunocytochemical neuroanatomy of behavior and diseases of the nervous system including epilepsy; establish collaborative research programs within the College of Medicine. Requirements: Ph.D. in neuropharmacology, neurochemistry, neurophysiology, biochemistry, neuroanatomy or cell biology, or an M.D. degree with appropriate biomedical training and/or experience; publication record in immunocytochemical neuroanatomy, electrophysiology and/or the neuropathophysiology of behavior; strong potential for continuing extramural funding of research; and a documented capacity for excellence in teaching medical students. A minimum of 4 years of postdoctoral experience is preferable but not essential if other credentials are sufficiently outstanding. Position available 1 March 1988 or after. Appointment is envisioned at the level of instructor or assistant professor. Salary and rank commensurate with qualifications and responsibility. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.* Send curriculum vitae and names of three references to: **Phillip C. Jobe, Ph.D., Professor and Chair, Department of Basic Sciences, University of Illinois College of Medicine at Peoria, P.O. Box 1649, Peoria, IL 61656.** Applications will be received until the position is filled.

### FACULTY POSITION SCHOOL OF KINESIOLOGY SIMON FRASER UNIVERSITY

The School of Kinesiology at Simon Fraser University invites applications for a tenure-track position in the general area of Biomechanics. A Ph.D. in the area of biomechanics or related areas is essential. Research experience in human and/or occupational biomechanics is desirable.

*Canadian immigration laws require that preference be given to either Canadian Citizens or landed immigrants. Simon Fraser University is committed to the principle of Equal Employment.*

All appointments are subject to budgetary authorization.

The application should include curriculum vitae and the names and addresses of three individuals to whom reference can be made. Send applications to: **Dr. E. W. Banister, School of Kinesiology, Simon Fraser University, Burnaby, British Columbia, Canada V5A 1S6.**

### FACULTY POSITIONS AVAILABLE IN DEPARTMENT OF MEDICINE, HYPERTENSION DIVISION CASE WESTERN RESERVE UNIVERSITY

The Hypertension Division of the Department of Medicine invites applicants with M.D. and/or Ph.D. degree for tenure-track junior and senior positions. Candidates with strong credentials in the area of structure and function of receptors and G-proteins are encouraged to apply. This environment provides excellent opportunities to develop independent research programs. Applicants should send curriculum vitae, brief summary of present and proposed research, reprints, and the names of three references to: **Dr. Janice Douglas, Department of Medicine, Case Western Reserve University, 2074 Abington Road, Cleveland, OH 44106. The University is an Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### SETON HALL UNIVERSITY, FACULTY POSITION, BIOCHEMISTRY

The Chemistry Department of Seton Hall University invites applications at the assistant professor level for a tenure-track position, starting in September 1988. The successful candidate will teach at the graduate and undergraduate levels and direct biochemical research with B.S., M.S. and Ph.D. candidates. All areas of biochemistry which complement the research areas of our faculty will be considered, but preference will be given to applicants whose research emphasizes chemical approaches to metabolic or nucleic acid biochemistry.

Send résumé and three letters of recommendation, with a brief description of future research plans on or before 16 February 1988 to:

**Biochemistry Faculty Search Committee, Chemistry Department, Seton Hall University, 400 South Orange Avenue, South Orange, NJ 07079. An Equal Opportunity/Affirmative Action Employer.**

### FACULTY POSITION IN EXPERIMENTAL ONCOLOGY CORNELL UNIVERSITY COLLEGE OF VETERINARY MEDICINE

The College of Veterinary Medicine at Cornell University invites applications for a cancer cell biologist in its new laboratory for Experimental and Clinical Oncology. The individual will be prepared to take responsibilities and provide leadership in the development and planning of a modern oncology unit. The ideal candidate will have a Ph.D. (and/or D.V.M., M.D.) degree, an active program in basic or applied cancer research, and an excellent publication record. He/she will also be expected to interact with the clinical oncologists in the development of novel, experimental cancer treatment strategies, and to participate in the teaching of graduate students. Rank and salary are commensurate with qualifications. Applicants should send a letter outlining their research program, curriculum vitae, and three letters of reference to: **Bendicht U. Pauli, D.V.M., Ph.D., Chairman Oncology Search Committee, Department of Pathology, Cornell University College of Veterinary Medicine, Ithaca, NY 14853-6401. Cornell University is an Equal Opportunity/Affirmative Action Employer.**

### UNIVERSITY OF PITTSBURGH DEPARTMENT OF BIOLOGICAL SCIENCES FACULTY POSITION

The Department of Biological Sciences at the University of Pittsburgh invites applications from highly qualified individuals with a strong research commitment for a tenure-track position at the level of assistant professor in one of the following research areas: Molecular genetics, cell and developmental biology, or molecular structure. This position offers an excellent opportunity for diverse interactions with an expanding group of investigators having current research strengths in the areas of protein-DNA interaction, eukaryotic gene expression, RNA structure and function, and aspects of cell and developmental biology. In addition to establishing a vigorous research program, the candidate will direct graduate research and participate in teaching programs. Starting date: 1 September 1988. Applicants with a Ph.D. and postdoctoral experience should forward a brief description of research plans, curriculum vitae, and arrange for three letters of recommendation to be sent to: **Faculty Search Committee, Department of Biological Sciences, University of Pittsburgh, Pittsburgh, PA 15260. The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer. Applications from minority and women candidates are especially encouraged.**

### GENE EXPRESSION

The Laboratory of Molecular Endocrinology at the Massachusetts General Hospital seeks a **POSTDOCTORAL FELLOW OR RESEARCH ASSOCIATE** to work on the regulation of polypeptide hormone genes. Experience in recombinant DNA techniques is preferable, but not essential. The laboratory is focused on studies of the cis and trans factors that lend cell-specific expression to polypeptide hormone genes. A microchemical facility for protein sequencing-synthesis and DNA synthesis is available. Salary and rank are commensurate with experience. Send curriculum vitae and two letters of recommendation to: **J. Habener, Chief, Laboratory of Molecular Endocrinology, Massachusetts General Hospital, Boston, MA 02114.**

## POSITIONS OPEN

### FACULTY POSITION

The Department of Biology at the University of Northern Iowa invites application for a tenure-track position effective August 1988. The department has high expectations for effective teaching and productive research. Teaching responsibilities for the Academic Year include a course in comparative anatomy, an advanced course in the applicant's specialty, and an introductory course in either anatomy-physiology or general biology. Postdoctoral and teaching experience preferred. The position carries the expectation for direction of student research and of obtaining external funding. The research area is open but preference will be given for animal developmental biology.

Applicants should send curriculum vitae, graduate transcript, a statement of interests and goals in both teaching and research, reprints, and three letters of recommendation before 19 February 1988 to: **Dr. Daryl Smith, Head, Department of Biology, University of Northern Iowa, Cedar Falls, IA 50614-0421. An Equal Opportunity/Affirmative Action Employer. Women, minorities, and members of other protected classes are encouraged to apply.**

### FACULTY POSITIONS AT THE FRED HUTCHINSON CANCER RESEARCH CENTER DIVISION OF BASIC SCIENCES

The Division of Basic Sciences at the FHCRC has faculty positions available (any rank). The Division is a broadly based, highly interactive group of 25 faculty members conducting research in cellular and molecular biology. Candidates will be selected primarily on the quality of their research, as opposed to specific topics, but the group is seeking to build strength in some specific areas including: structural biology, mammalian development, immunobiology, carcinogenesis, protein biochemistry, and prokaryotic molecular genetics.

Candidates should send curriculum vitae, a concise statement of their research plans, and three letters of reference to:

**New Staff Committee  
Fred Hutchinson Cancer Research Center  
Division of Basic Sciences  
1124 Columbia Street  
Seattle, WA 98104**

on or before 31 January 1988.

*The FHCRC is an Equal Opportunity/Affirmative Action Employer.*

**GENETICIST**—Furman University has a September 1988 tenure-track assistant professor position for a person trained in genetics. Specialty in cytogenetics, human genetics, or population genetics is especially suitable, but those experienced in other areas may apply. Initial teaching responsibilities are introductory genetics and freshman zoology, with later opportunity for participation in elective courses or development of a course in one's area of interest. Candidates must have the Ph.D. degree, a strong interest and ability in teaching undergraduates, and a commitment to involving them in an active research program. Furman is a very selective liberal arts school of 2500 students. Submit curriculum vitae, original or photostatic transcripts, a statement describing area of teaching competency, and three letters of reference by 22 February 1988 to: **Dr. R. W. Kelly, Genetics Search Committee, Department of Biology, Furman University, Greenville, SC 29613. An Equal Opportunity/Affirmative Action Employer.**

### HUMAN ANATOMIST

Applications are invited from candidates with the Ph.D., M.D. or equivalent degree and significant postdoctoral research experience for a tenure-track position at the assistant professor level beginning in fall 1988. The appointee will teach in a team-taught course in Gross Anatomy for medical students. The applicant must have demonstrated the potential for development of a productive research program in molecular or cellular neurobiology. Send curriculum vitae and the names of four individuals who are familiar with the candidate's research to: **Chairman, Department of Anatomy and Cell Biology, Emory University School of Medicine, Atlanta, GA 30322. An Equal Opportunity/Affirmative Action Employer.**



**PUBLIC HEALTH SERVICE  
NATIONAL INSTITUTES  
OF HEALTH**

**NATIONAL CANCER INSTITUTE**

**An Intramural Research  
Scientist Vacancy**

**Chief,  
Laboratory for Nutrition  
and Cancer Research  
Division of Cancer  
Prevention and Control**

The National Cancer Institute develops the overall national strategy against cancer, coordinates Federal government and non-Federal government cancer programs, and supports international programs of cancer research. The incumbent of this position serves as the Chief, Laboratory for Nutrition and Cancer Research in the Cancer Prevention Research Program, Division of Cancer Prevention and Control. The Laboratory Chief plans, develops, implements and coordinates the NCI's programs in research on diet and nutrition as they relate to the prevention of cancer in humans. The program includes three major areas of study requiring an interdisciplinary approach to both basic and applied research. Investigations are to be conducted in 1) Basic science pertaining to nutrition, 2) Nutritional epidemiology, and 3) Clinical/metabolic research in humans. The Chief directly supervises and assumes responsibility for this multidisciplinary nutrition research program. Each of the three major research areas could have four or more Sections and a total staff of 60 or more full-time individuals when fully operational.

This is a Civil Service position at the GM-15 level with a salary range from \$53,830 to \$69,976 per annum and requires a doctoral degree or equivalent. In addition, candidates with an M.D. degree may be eligible for a Physician's Comparability Allowance up to \$20,000 per year. (Candidates alternatively may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.)

In addition, it is desirable that candidates demonstrate professional/technical and managerial/executive qualifications. Candidates will be reviewed to determine the extent to which they exceed the minimum requirements and possess additional factors including scientific reputation/peer recognition, training and education and honors and awards. A copy of the requirements may be obtained by contacting Ms. Nancy Saltzman in the Personnel Management Branch, NCI at (301) 496-6864.

Applications for Federal Employment (SF-171) are to be sent to the above individual at: The National Cancer Institute, 9000 Rockville Pike, Building 31, Room 3A23, Bethesda, Maryland 20892-3100. A current curriculum vitae and bibliography must accompany all applications, which must be received by February 1, 1988. Applications from women and/or minority group members are especially solicited. U.S. Citizenship is required.

**THE NATIONAL INSTITUTES OF HEALTH  
IS AN EQUAL OPPORTUNITY EMPLOYER**

## **Associate Manager, Computing Services**

Argonne National Laboratory is a leading R&D organization with significant research programs requiring large-scale and distributed computing.

The Laboratory has a centralized computing facility, featuring a Cray X-MP/14, two IBM 3033s and a VAX 8700, as well as an extensive distributed computing network, which includes several VAXes and several parallel processor computers. This is an opportunity to exert leadership in the development of scientific and engineering opportunities which rely on this significant scientific and telecommunications environment.

Candidate should offer a strong background in engineering or science and large-scale computing and have experience in developing interdisciplinary programs with external sponsors. Communications skills in dealing with a sophisticated scientific user community and program sponsors is required. Familiarity with state-of-the-art trends for large-scale scientific computing, computer networking and computer graphics is desirable.

An M.S. or Ph.D. in science, engineering or related disciplines is required.

Qualified candidates are invited to send resume and salary requirements in confidence to:



Rosalie L. Bottino  
Employment and Placement  
Box D-CSD-22106-55  
Argonne National Laboratory  
9700 South Cass Avenue  
Argonne, IL 60439

An Equal Opportunity/Affirmative Action Employer

## **PHARMACEUTICAL RESEARCH**

Fortune 250 Allergan, Inc. is an international leader in eye and skin care products. We seek experienced research scientists for our Irvine, California headquarters.

### **Inflammation**

The successful candidate will be responsible for a research program for studying ocular anti-inflammatory and immune regulatory compounds as potential therapeutic agents. A PhD in immunology, cell biology or molecular biology is highly desirable. Research experience in molecular biology is a definite plus.

**Please send resume with salary history to: Dept. JS-1056-S.**

### **Glaucoma**

Primary responsibilities include independent glaucoma research directed toward the identification of novel anti-glaucoma drugs. A PhD or equivalent experience in pharmacology, physiology or cell biology is preferred. Membrane transport experience is essential. **Please send resume with salary history to: Dept. JS-1054-S.**

Allergan offers excellent salaries and benefits. Responses to: **Allergan, Inc., Human Resources (indicate dept. #), 2525 Dupont Drive, Irvine, CA 92715.** Equal Opportunity Employer M/F/H/V.



**ALLERGAN, Inc.**

## IMMUNOLOGIST NATIONAL CANCER INSTITUTE NATIONAL INSTITUTES OF HEALTH

The Biologics Evaluation Section of the Cancer Therapy Evaluation Program, DCT is seeking an Immunologist who is interested in the application of preclinical models on the design of cancer trials.

The Cancer Therapy Evaluation Program, DCT sponsors extramural clinical trials with BRMs including IFNs alpha, beta and gamma, TNF alpha, IL-2, adoptive immunotherapy, colony stimulating factors and monoclonal antibodies. The primary responsibilities for the immunologist will be: to coordinate and direct the laboratory research of contractors conducting trials with activated leukocytes; in conjunction with the BRM Committees in the Oncology Cooperative Groups, to develop methodology for immunologic monitoring on selected Cooperative Group trials; in conjunction with the Biological Response Modifiers Program of the NCI, to identify agents with potential anti-tumor activity and implement the preclinical studies necessary for the rational clinical development of BRMs; to assess the relevance of preclinical data submitted to support proposed clinical trials; and to determine the immunologic monitoring to be performed on proposed clinical trials with BRMs.

Applicants should have a strong background in immunology with experience as an independent investigator, preferably in an area related to host mediated tumor killing and an interest in the application of basic science observations to the clinical development of biological agents. Applicants should have skills in verbal and written communication.

Salary range from 38,727 - 50,346 depending upon qualifications.

The National Institutes of Health is an Equal Opportunity Employer.

Applicants should contact:

Michael J. Hawkins, M.D.  
Head, Biologics Evaluation Section  
Investigational Drug Branch  
Cancer Therapy Evaluation Program, DCT, NCI  
7910 Woodmont Avenue, 4C-19 Landow Building  
Bethesda, Maryland 20814

U.S. Citizenship Required

## Molecular Neurobiology



### Professor of Molecular Neurobiology and Associate Director of Biotechnology Center

The Ohio State University is launching a major effort in molecular neurobiology to build on an existing foundation in neuroscience that spans many departments. Molecular neurobiology is one of two areas chosen for development into major centers of excellence by the university's Biotechnology Center.

The established molecular neurobiologist we seek will move into a newly remodeled laboratory and provide leadership in building a team of about 10 new faculty who will occupy a 30,000 sq ft floor in the Ohio State Biotechnology Center building. This group will be part of the interdepartmental graduate program in neurosciences and will have access to other graduate programs in basic and biomedical sciences. The molecular neurobiology group will also be part of a university-wide network of interacting research groups involved in molecular approaches to the solution of problems in medicine, agriculture and related areas. An instrumentation center for services such as protein and DNA synthesis and sequencing is available as an integral part of this program. The successful candidate will hold a tenured appointment in one of the departments in the College of Medicine. A competitive salary and an attractive package to set up a modern laboratory will be provided.

The Ohio State University is a major comprehensive university with all of the basic science and professional colleges in one campus in the state capital. Columbus, a growing community of 1.3 million population, is within 500 miles of most midwestern and eastern population centers of North America.

Please send nominations and applications to P.E. Kolattukudy, Director, Biotechnology Center, Rightmire Hall, The Ohio State University, Columbus, Ohio 43210. Equal Opportunity Affirmative Action Employer.

## Biochemist/ Cancer Research



An equal opportunity employer

Pfizer Central Research has recently expanded its Cancer Research Group and, as a result, has an impressive multidisciplinary team developing agents against a variety of tumor-specific targets. There is an opening in this group for a Biochemist with experience in studying signal transduction mechanisms in both normal and tumor cells.

Candidates for this position must have a PhD in Biochemistry, or a related field, and a keen interest in discovering and studying the mechanisms of action of drugs which selectively affect signal transduction in tumor cells. Candidates should have completed a post-doctoral fellowship in a laboratory concerned with growth regulation and oncogene molecular biology.

This position offers an excellent opportunity for professional recognition and career growth. 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: Mr. Donald R. Nelson, Manager of Employee Relations, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.

### UNDP/WORLD BANK/WHO Special Programme for Research and Training in Tropical Diseases (TDR)

### Call for Research Proposals on the Immunology of Malaria

The UNDP/WORLD BANK/WHO Special Programme for Research and Training in Tropical Diseases (TDR) wishes to stimulate research proposals on high-priority areas in research on the immunology of malaria.

#### High-Priority Topics:

- antigenic analysis of human and murine malaria parasites;
- cloning of murine malaria genes encoding analogues of human malaria vaccine candidate molecules;
- evaluation of immune responses to antigenic epitopes; identification of T and B epitopes;
- role of antigenic diversity in naturally acquired immunity;
- role of genetic factors in protection and in immunopathology;
- development of diagnostic tests and tests for the measurement of protective immunity in malaria.

Research proposals are reviewed twice a year. Closing dates for receipt of proposals in 1988 are 11 February and 31 July. Details of funding policy will be provided upon request. For further information and application forms, please address all inquiries to:

Dr L. Martinez, Secretary,  
Steering Committee on the Immunology of Malaria  
World Health Organization  
1211 Geneva 27  
Switzerland

Tel.: (41-22) 91 37 54/55; Teleg.: UNISANTE-GENEVA;  
Telex: 27821 OMS; Fax: 910746

# OBESITY RESEARCH

## Senior Scientists



offmann-La Roche, an established leader in the pharmaceuticals and medical research industries, has two unique opportunities on our Obesity Research team. You will participate in the identification and characterization of therapeutic agents used in the treatment of obesity; and the conception/direction of research projects in the general area of the regulation of appetitive behavior and energy balance.

Candidates for both positions must possess 1+ years of post-doctoral training; experience with both in vivo and in vitro methodologies; brainstem and hypothalamic or hepatic, adipose and muscle biochemistry and/or physiology; visceral (GI tract and liver) afferent and efferent systems; studies with isolated organs, tissues or cell preparations; and receptor-ligand interactions. A good publication record is essential.

Position A will focus on appetitive behavior and peripheral/central integration of signals controlling food intake and energy expenditure. In addition to the above qualifications, you must

have a PhD in Neuroscience, Physiology, Psychology or a related discipline, and knowledge of Appetitive Behavior, Neurobiology, Neuropharmacology, Neurochemistry, and/or Biochemistry and Obesity. Please refer to position A on resume.

Position B will focus on metabolic regulation at the organ, tissue and cellular levels, and the autonomic nervous system. A PhD in Biochemistry, Endocrinology, Physiology, Neuroscience or a related discipline, and knowledge of Metabolism, Endocrinology, GI Physiology, Autonomic Nervous System, body energy balance and obesity are required. Please refer to position B on resume.

Roche offers a professional environment and an attractive compensation package. Please send your resume and publication list, indicating position of interest to: **Eleanor M. Malone, Professional Employment & Staffing Specialist, Department AC, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.** We are an equal opportunity employer.



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# Opportunities for Life Scientists

Procter & Gamble has entry-level staff positions available for Ph.D. life scientists to be filled between now and September 1988. This is a direct result of growth in the health, personal care, and pharmaceutical areas and our continued commitment to the human and environmental safety of all our products. Openings are in the following disciplines:

Biochemistry	Pharmaceutical Science
Biostatistics	Pharmacokinetics
Cell Biology	Pharmacology
Enzymology	Pharmacy
Epidemiology	Physiology (GI)
Microbiology	Protein Chemistry
Molecular Biology	Toxicology (all types)
(General)	
Molecular Biology	
of Carcinogenesis	

Procter & Gamble is known for its employment stability, excellent management, and strong commitment to research and development. Starting salaries are highly competitive and benefits, including profit sharing, rank in the top 5% of U.S. corporations.

If you're looking for industrial employment in any of these discipline areas, please send your resume and publication list to:

**Dr. Ted J. Logan, Manager**  
**Ph.D. Recruiting/1988 Openings**  
**THE PROCTER & GAMBLE COMPANY**  
**Miami Valley Laboratories**  
**P.O. Box 398707**  
**Cincinnati, Ohio 45239-8707**

*An Equal Opportunity Employer*

*Allow 6-8 weeks for response. All candidates must have U.S. citizenship or permanent resident visa status.*

*No agency referrals, please.*

# Procter & Gamble

## POSITIONS OPEN

### FACULTY POSITION IN VETERINARY VIROLOGY

The Diagnostic Laboratory at Cornell University's College of Veterinary Medicine invites applications for a veterinary virologist. Requirements for this position are a D.V.M., M.D., Ph.D. and/or equivalent degree with specific training in animal virology.

Prospective candidates with the Ph.D. degree should also have at least 2 years of postdoctoral experience. Preference will be given to candidates with additional training in modern approaches to viral diagnostics, viral immunology, or immunochemistry, although all qualified candidates are urged to apply. This full-time position will require the successful candidate to assist in the supervision of a diagnostic virology program and to develop a competitive research program. Collaborative research opportunities exist in viral pathogenesis, diagnostics and epidemiology. Rank and salary are commensurate with qualifications and experience. This position is available immediately.

Apply by sending curriculum vitae and three letters of recommendation by 1 March 1988 to: **Dr. Edward J. Dubovi, Diagnostic Laboratory, New York State College of Veterinary Medicine, P.O. Box 786, Ithaca, NY 14851-0786.**

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

### HEMATOLOGIST: FACULTY POSITION

Applications and nominations are invited for a faculty position in the Department of Medical Technology. Major responsibilities include teaching hematology in baccalaureate level medical technology program, and establishing a productive research program. Applicants should hold the doctorate (master's with outstanding qualifications considered). Rank and salary commensurate with experience and qualifications.

Please submit curriculum vitae and the names of three references to:

**Dr. Bernhard Ludvigsen**  
Department of Medical Technology  
University of South Alabama  
Mobile, AL 36688

Application deadline: 29 February 1988, or until filled. *Equal Employment Opportunity/Affirmative Action Employer.*

**HUMAN NUTRITION:** The College of Agriculture, Texas A&M University, is seeking two candidates for tenure-track research and teaching positions at the assistant or associate professor rank. One position, a Ph.D. in nutrition, biochemistry or closely related field is required; an R.D. would be desirable. Research program should focus on human health. Second position, a Ph.D. in nutrition, genetics, or biochemistry is required. Research program should have a molecular biology focus. Application or nominations are due by 1 March 1988. Send letter of application, curriculum vitae, statement of teaching and research interest, and names and addresses of three references to: **Dr. H. O. Kunkel, Dean, College of Agriculture, Texas A&M University, College Station, TX 77843. Telephone: 409-845-3714. Equal Opportunity Employer.**

**IMMUNOLOGIST:** The Division of Organ Transplantation and Immunology, Department of Surgery at the Yale University School of Medicine is seeking a qualified individual to serve as Director/co-Director of its Histocompatibility Laboratory. The appointee must have the M.D. or Ph.D. degree, appropriate training and/or experience in clinical histocompatibility testing and meet current criteria as outlined by the American Society of Histocompatibility and Immunogenetics (ASHI). The successful applicant will oversee the clinical activities of the histocompatibility laboratory, and participate in its administrative management. Active contribution to ongoing teaching and research programs within the Division will be essential, and development of an independent research program will be encouraged. The level of faculty appointment and salary will be commensurate with experience. Interested applicants should send curriculum vitae and addresses of three references to:

**Marc I. Lorber, M.D.; Director, Division of Organ Transplantation and Immunology, Department of Surgery, Yale University School of Medicine, P.O. Box 3333, New Haven, CT 06510.** The deadline for receipt of application is 1 March 1988. *Yale University is an Equal Opportunity/Affirmative Action Employer. Women and other minority candidates are encouraged to apply.*

## POSITIONS OPEN

### IMMUNOCYTOCHEMIST

Applications are invited for a chemist familiar with immunocytochemical techniques and monoclonal antibody production. The position is a non-tenure track. The candidate will be expected to conduct quantitative cytochemical assays, precision flow cytometry, and develop independent funding. All applicants who are not citizens, please indicate visa status. Apply to: **Dr. Wolff M. Kirsch, Chief, Division of Neurosurgery, University of New Mexico School of Medicine, Albuquerque, NM 87131. Equal Opportunity Employer.**

### IMMUNOLOGIST—UNIVERSITY OF SOUTHERN CALIFORNIA COMPREHENSIVE CANCER CENTER

The USC Comprehensive Cancer Center is recruiting an immunologist to complement its program in cancer immunology. The appointment will be at the assistant professor level and is a tenure-track position in the Department of Microbiology at the USC School of Medicine. The successful candidate will be expected to develop an independent research program in modern immunology and to interact with other cellular and molecular immunologists. Send résumé and names of three references to: **Gunther Dennert, Ph.D., Chair, Search Committee, University of Southern California Comprehensive Cancer Center, 1441 Eastlake Avenue, Los Angeles, CA 90033. Affirmative Action/Equal Opportunity Employer.**

### INSTRUCTOR/ASSISTANT PROFESSOR BIOLOGY

The joint Biology Department of the College of Saint Benedict and Saint John's University seeks to fill a 1-year, non-tenure-track position for the 1988 to 1989 academic year. Teach an upper division course in plant physiology, and participate in introductory biology for science majors and/or non-majors courses as required by the need of the department. Expertise in plant physiology and ability in teaching at the undergraduate level desirable. Ph.D. preferred. Send curriculum vitae and three letters of recommendation to: **Kathy Flynn, Wage and Benefit Coordinator, College of Saint Benedict, Saint Joseph, MN 56374.** Applications received after 19 February 1988 cannot be guaranteed consideration. *Women and minority applicants are encouraged to apply.*

**MICROBIOLOGY AND IMMUNOLOGY—ASSISTANT PROFESSOR.** Ph.D. expected for a tenure-track position. Experience/teaching in tissue culture and recombinant techniques essential. Small college, liberal arts background, strong teaching commitment. Doane, an innovative leader in the region, is located 30 minutes from Lincoln, Nebraska. Write for description of biology program and college and/or send letter, résumé, transcripts, and three reference letters by 30 January 1988 deadline to: **Dr. P. N. Gilbertson, Dean, Doane College, Crete, NE 68333. Affirmative Action/Equal Opportunity Employer.**

### MOLECULAR BIOLOGY

The Molecular Biology Institute of the University of California, Los Angeles invites applications for a **FACULTY POSITION** at either the junior or senior level, possibly in the area of molecular evolution or molecular recognition broadly defined. Areas of perceived interest include, but are not limited to, molecular evolution and comparative and computational biochemistry, including: RNA enzymes and the evolution of catalysis; sequence recognition and the evolution of control in transcription; translation and replication; molecular recognition and design; microbial phylogenetics; nucleic acid and protein sequence comparisons; and genome organization. Exceptional candidates are sought, however, without regard to field.

Send curriculum vitae, a description of research interests, and three letters of recommendation by 25 February 1988 to:

**James A. Lake, Chair**  
Faculty Search Committee  
Molecular Biology Institute  
University of California, Los Angeles  
Los Angeles, CA 90024

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

## POSITIONS OPEN

### UNIVERSITY OF HONG KONG LECTURER IN BIOCHEMISTRY (RE-ADVERTISEMENT)

Applications are invited for a Lectureship in the Department of Biochemistry. The appointee will be expected to teach students in the Faculties of Medicine, Science and Dentistry and to undertake research in the framework of a mature and well-equipped department. Consideration will be given to applicants from any field, but the department would be particularly interested in applicants with special interests and expertise in immunology and/or neurochemistry. A higher degree is normally required, and some teaching experience is desirable. Applicants with a medical and dental degree may have an advantage.

Annual salary (superannuable) is on an 11-point scale: HK\$188,040 to HK\$314,340 (US\$1 = HK\$7.80 as at 12 November 1987). Starting salary will depend on qualifications and experience. A medically-qualified appointee who has just completed his pre-registration year will be appointed as Lecturer at the minimum point of the scale. At current rates, salaries tax will not exceed 16½% of gross income. Housing benefits at a rental of 7½% of salary, children's education allowances, leave, and medical benefits are provided.

Further particulars and application forms may be obtained from: **The Association of Commonwealth Universities (Apts), 36 Gordon Square, London WC1H 0PF, or from the Appointments Unit, Registry, University of Hong Kong, Hong Kong.** Closes: 17 February 1988.

### MICROBIOLOGIST/ MOLECULAR BIOLOGIST

Adelphi University, located 20 miles from Manhattan and offering select undergraduate and graduate programs, seeks an assistant professor to teach and conduct research in microbiology and microbial physiology, genetics, or molecular biology. The Biology Department enrolls over 270 undergraduate majors and offers a research-oriented Master of Science program. Submit curriculum vitae, statement of research interests and names and telephone numbers of three references to: **Dr. Igor Webb, Office of the Provost, Box 701, Adelphi University, Garden City, NY 11530.**

*Adelphi University is an Equal Opportunity/Affirmative Action Employer M/F.*

### MOLECULAR BIOLOGIST LABORATORY FOR CELL, MOLECULAR, AND DEVELOPMENTAL BIOLOGY UNIVERSITY OF ILLINOIS AT CHICAGO

The Department of Biological Sciences of the University of Illinois at Chicago seeks a senior molecular biologist to join the Laboratory for Cell, Molecular and Developmental Biology. The appointment will be at the rank of full professor with tenure. The appointee will coordinate current programs and ongoing development of the Laboratory.

The Laboratory for Cell, Molecular, and Developmental Biology (LCMDB), was established to consolidate research and training programs in modern cellular, molecular, and developmental biology, and represents one facet of a campus-wide commitment to foster excellence in the areas of molecular biology and biotechnology. Permanent funding exists for LCMDB support staff, graduate fellowships, postdoctoral fellowships, new equipment, and facilities. Salary lines for the recruitment of junior faculty are also available.

The candidate should have a Ph.D. degree, currently hold the rank of associate or full professor (or equivalent), have an exceptional and ongoing record of research accomplishment, and be recognized as a leader in his or her field. Specific research specialty is open, but should be in an area central to molecular biology and/or molecular genetics.

The position will be available 1 July 1988. Salary is competitive. Applicants should submit curriculum vitae and the names of three references. Applications, nominations or inquiries should be directed to: **Dr. Brian Nichols, Senior Molecular Biologist Search Committee, Department of Biological Sciences m/c 067, University of Illinois at Chicago, P.O. Box 4348, Chicago, IL 60680. Telephone 312-996-5064.**

*The University of Illinois at Chicago is an Equal Opportunity/Affirmative Action Employer.*

**THE AUSTRALIAN NATIONAL UNIVERSITY  
RESEARCH SCHOOL OF BIOLOGICAL SCIENCES  
ECOSYSTEM DYNAMICS  
FELLOW, RESEARCH FELLOW  
POSTDOCTORAL FELLOW**

The Australian National University is undertaking a major development in the ecology of the dynamics of terrestrial ecosystems. A research group of about eight academic staff is being established to investigate the processes of establishment, development and rehabilitation of particular ecosystems and to develop predictive models of changes in terrestrial ecosystems. The approach will include a combination of theoretical and experimental studies with particular emphasis being given to the eventual application of the results to land management. The initial emphasis of the group will be on *Eucalyptus* communities but the theoretical and modelling efforts will encompass a broader range of ecosystems. The group currently consists of three staff (one tenured) whose interests include community and population ecology, ecological modelling and eco-physiology. A second tenurable appointment of a community ecologist has already been advertised and will be filled early in 1988. A third tenurable appointment is now advertised, together with up to three non-tenured posts. These are full-time research positions although the appointees will also be expected to assist in the supervision of post-graduate students. The Ecosystem Dynamics group has strong links with existing programs in plant physiology and resource management elsewhere in the University.

**FELLOW IN BIOLOGICAL MODELLING/  
INFORMATION SCIENCE  
(one position)**

A tenurable position is offered for an appointee with experience in the application of information science in ecology or related areas. The particular skills sought include bio-mathematics, modelling, or geographical or biological information systems. It is essential that the appointee be able to provide continuing leadership in the longer-term development of this rapidly expanding field both by direct contribution and via collaboration with research groups such as the ANU Centre for Information Science Research. (Ref: BS 3.12.1)

**RESEARCH FELLOW/POSTDOCTORAL FELLOW IN POPULATION  
OR COMMUNITY ECOLOGY (up to three positions)**

Several non-tenured positions are available for population or community ecologists. The areas of research priority include ecological variation between *Eucalyptus* subgenera, competition between mature and immature plants, comparative studies of seasonal patterns of resource use in *Eucalyptus* communities, and the relationship between environmental and biological interactions in determining species distributions along resource gradients. The successful applicants will have demonstrated research potential in ecology and an ability to work co-operatively with other researchers. A knowledge of the Australian biota would be an advantage. (Ref: BS3.12.2)

**RESEARCH FELLOW/POSTDOCTORAL FELLOW IN BIOLOGICAL  
MODELLING/INFORMATION SCIENCE**

A non-tenured position is available for an appointee with experience in the application of information science in ecology or related areas. The successful applicant will have demonstrated research ability in information science or quantitative ecology and will be expected to undertake research into the application of succession models to land management. (Ref: BS 3.12.3) Further particulars may be obtained from the School Secretary, Research School of Biological Sciences. Telephone: Canberra (062) 494138. Fax (062) 489995. Closing date: 22 January 1988

**POSTDOCTORAL FELLOW IN GRASS TAXONOMY**

The Australian Biological Resources Survey has funded a position to prepare taxonomic descriptions of the Australian Poaceae-Pooideae. Data will be stored using the DELTA taxonomic computer programs. The data will be used to prepare a printed account suitable for the Flora of Australia and a data base for interactive identification and retrieval programs in microcomputers. Applicants should have a higher degree with experience in plant taxonomy at the species level, interest in grasses and experience with, or enthusiasm for, practical taxonomic applications of computers. The position will be available from mid-1988 and, it is expected, will be renewable annually for up to three years. Enquiries to: Mr. L. Watson, Taxonomy Lab. (062 494666). Closing date: 12 February 1988 Ref: BS 3.12.4

**SALARY:** Fellow; A\$32,999-A\$44,032 p.a.; Postdoctoral Fellow Grade 1 (fixed point); A\$24,535-A\$28,029 p.a.; Research Fellow; A\$28,381-A\$37,122 p.a.; Senior Research Fellow; A\$39,439-A\$46,942 p.a.; **APPOINTMENT:** Fellow, tenurable. Research Fellow up to three years, possibility of extension to five years; Postdoctoral Fellow normally two years, possibility of extension to three years.

**APPLICATIONS** should be submitted in duplicate to the Registrar, The Australian National University, GPO Box 4, Canberra ACT 2601, quoting reference number and including curriculum vitae, list of publications and names of at least three referees. The University reserves the right not to make an appointment or to appoint by invitation at any time. Further information is available from the Registrar.

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If you're interested in a career with a leading pharmaceutical company, why not begin your search with a company respected the world-over for its profound commitment to care, to quality, and to innovation? Baxter Healthcare Corporation has demonstrated that commitment for over 30 years. Currently, our Hyland Division is seeking qualified individuals for these opportunities:

**Senior Research Scientist —  
Virologist**

As part of the R&D department, you will initiate, design, and implement animal virology laboratory studies in efforts to develop therapeutic human monoclonal antibodies. This function will utilize state-of-the-art techniques for studying the role of viruses and viral sub-units in hybridoma and mAb function and production. You will also be responsible for devising action plans in order to coordinate work in conjunction with R&D project needs. Qualification requirements include: Ph.D. with two years post-doctoral training in animal virology with demonstrated expertise in immunology and biochemistry; capability to design and direct bench-level experiments; and the ability to interpret and communicate research results. Working knowledge of mAb technology is desired.

**Senior Research Scientist —  
Cell Culture  
Process Engineering**

In this R&D position, you will utilize state-of-the-art dynamic modeling techniques to design and evaluate technology and process configurations for pilot-scale mammalian cell culture production of GMP-grade therapeutic proteins. In addition, you will also devise and automate sensor and process control strategies, and develop research programs to study mass and energy transfer kinetics in order to maximize production and purification efficiencies. Qualification requirements include: Ph.D. with at least two years academic or industrial post-doctoral training in biochemical engineering or equivalent, and demonstrable expertise in the theory and practice of cell culture process engineering. Experience with hybridomas and monoclonal antibodies is desired.

If you qualify for either of these positions, you will receive all the advantages of working with a world-class leader; including an excellent salary and benefits package, and a stable, yet creative, work environment. For immediate consideration, please forward your resume to: **Ms. Liz Di Bernardo, Human Resources Dept., Baxter Hyland Division, 444 W. Glenoaks Blvd., Glendale, CA 91202.** An Equal Opportunity Employer.

**Hyland Division**

***Baxter***



## **GROUP LEADER**

### ***Nucleic Acids Probe Research***

IGEN, INC. turned down a major pharmaceutical firm's offer to purchase us because we believe IGEN can become one of the major biotechnology firms dedicated to the development of proprietary diagnostic systems and pharmaceuticals.

In order to utilize its non-isotopic detection system technology in the nucleic acids based diagnostic area, IGEN has decided to establish a group in Nucleic Acid Assay Research and Development. We are looking for an exceptional scientist who is ready to take the challenge of leadership in establishing this group. The ideal candidate will have a Ph.D. and several years of experience in nucleic acids probe research and development. Experience in or familiarity with modern immunodiagnostic assay systems and recombinant DNA methodology is a plus.

If you are a qualified candidate, ready to join a rapidly growing biotechnology firm, while earning a salary commensurate with your experience and coverage under an attractive benefits package, this position is for you.

Send your resume with salary history in confidence to: **IGEN, INC., Dept. CH-0188, 1530 East Jefferson Street, Rockville, Maryland, 20852.**

**IGEN, INC.** *An Emerging Leader in Biotechnology*

An Equal Opportunity Employer

## **NATIONAL SCIENCE FOUNDATION (NSF)**

NSF's Division of Astronomical Sciences is seeking qualified applicants for Program Director, Stars and Stellar Evolution (STE) Program, Astronomy Research Section. The position will be filled on a 2- or 3-year rotator/temporary basis, beginning approximately June or July, 1988, and is excepted from the competitive civil service. The salary range is \$45,763 to \$72,500 per annum.

The Program Director is responsible for review, recommendation and processing of proposals assigned to the STE Program.

Applicants should have a Ph.D. in Astronomy or Astrophysics or equivalent experience. In addition, 6 or more years of successful independent scientific research. Research administration and/or managerial experience is desirable. For technical information please contact the Division of Astronomical Sciences (202) 357-9488.

Applicants should send resume or SF-171, Application for Federal Employment to: National Science Foundation, Division of Personnel and Management, 1800 G St., NW., Washington, DC 20550. Attn: Catherine Handle. For further information call 202/357-7840. Hearing impaired individuals should call TDD 202/357-7492. NSF is an Equal Opportunity Employer.

## **STAFF PATHOLOGIST**

Bio/dynamics Inc., an expanding toxicological contract laboratory located near Princeton, N.J., is seeking a professional Pathologist to join its experienced staff.

Primary responsibilities include the microscopic examination of tissues from a variety of laboratory animal species used in toxicological and carcinogenesis studies, independent and collaborative evaluation and interpretation of pathomorphological findings and the presentation of written reports.

We require that the successful candidate have a degree from an accredited school of veterinary medicine and be board certified or eligible and to have a minimum of 5 years of experience in toxicological pathology. A working knowledge of specialized techniques will be favorably considered.

We can offer you the challenges that you desire as well as a competitive salary and comprehensive benefits package. Please send a resume which must include salary history and requirements to:

**ATT: Personnel Manager—Dept. 51  
Bio/dynamics Inc.**

**P.O. Box 2360, East Millstone, NJ 08875-2360**

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# Opportunities for Protein Chemists

Genentech, Inc., a leader in the field of biotechnology, has a strong commitment to a new department in research to work on state-of-the-art purification and sequence determination of novel proteins.

The success of this group will require the addition of personnel at all levels including Postdocs, Scientists, Senior Scientists, and a Director at the Ph.D. level who have a proven record of innovative and productive research in this area. Senior Scientist level individuals will be expected to establish and lead teams to support the efforts of the group to become a leading force in this field.

Positions will also be available for Research Assistants and Associates with a BS or MS in Biochemistry, Chemistry or related degree. Experience in protein purification, especially high resolution techniques such as FPLC, HPLC, as well as two-dimensional gel electrophoresis and tissue culture would be helpful.

Genentech offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. Please send your curriculum vitae, a summary of your research interests and three letters of reference to Dr. Bart Aggarwal, Senior Scientist, Protein Chemistry Department, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. An equal opportunity employer.

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**ORGANON TEKNIKA CORPORATION,**  
*a premier supplier of state-of-the-art diagnostic tests and dialysis equipment, has an immediate opening for the following professional in its Research Triangle Park/Durham, North Carolina facility.*

## **SR. SCIENTIST/PROJECT LEADER — IMMUNOHEMATOLOGY REAGENTS**

An exciting, challenging opportunity is immediately available for a Senior Scientist/Project Leader in Immunohematology Reagents Research. This individual will guide a research project team with the goal of developing new diagnostic products for blood bank serology.

In addition to having at least three years experience in medical diagnostics and being familiar with blood banking technologies and reagents, well-qualified candidates will have a Ph.D. in immunology with demonstrated experience in conducting research in serology, including cell surface antigens.

ORGANON TEKNIKA CORPORATION offers a competitive compensation package which includes dental insurance and an attractive 401 (k) Savings Program. Qualified applicants please send resume and salary history to:

**Human Resources Department**

**ORGANON TEKNIKA**

P.O. Box 13867, Research Triangle Park, N.C. 27709

An Equal Opportunity Employer M/F/V/H (No Agency Referrals or Phone Calls Please)

Sound business and aggressive research have fueled Abbott Laboratories' success as a \$4.5 billion health care leader. One area where we continue to achieve prominence year after year is our Pharmaceutical Products Division, where we currently seek the following professionals:

### **PhD Behavioral Pharmacologist**

Qualified candidate will have a PhD in Behavioral Pharmacology plus 2 or more years of post-doctoral experience in the area of cognitive function, specializing in animal studies of learning and memory. Background in cholinergic systems preferred.

### **Behavioral Pharmacology — Research Associate**

MS degree or BS with 2 or more years of experience in Behavioral Pharmacology or related area essential. Knowledge and experience with animal surgery and drug administration required. Background in animal studies of learning and memory preferred.

Abbott is headquartered in north suburban Chicago. We provide exceptional compensation including profit sharing and stock retirement plans. Find out more. Send a resume in strictest confidence to: **Patricia Handy/SCI 1-8**. Abbott is an Affirmative Action Employer.

**ABBOTT**  
ABBOTT PARK IL 60064

"Health Care Worldwide"

## POSITIONS OPEN

### MOLECULAR BIOLOGY POSITIONS

The Biology Department, Central Michigan University, invites applications from qualified candidates for two newly established, tenure-track, research-teaching positions at the assistant or associate professor level to begin August, 1988. A Ph.D. degree and an educational background and experience in molecular biology are required. Postdoctoral research and teaching experiences are also desired. Both positions will be 1/2 time research and 1/2 time teaching. Funds to support the research salary and "seed money" will be available for the first 2 years of employment. Each position has the potential to have one graduate research assistantship. After 2 years, the persons hired must provide their own funds to support their research salary, research supplies, and equipment. The persons hired will be expected to teach and direct student research (B.S./M.S. level) in areas of molecular biology. The applicants will develop strong research programs relating to the applications of molecular biology to environmental problems and they should be familiar with various techniques, such as DNA isolation, sequencing, and cloning. It is desirable that this technology be applied to problems in environmental biology. Send curriculum vitae, transcripts, description of research goals, selected reprints, and the names, addresses and telephone numbers of three references to: **Dr. Lawrence Koehler, Chairperson, Department of Biology, Central Michigan University, Mt. Pleasant, MI 48859.** Deadline: 15 February 1988. Telephone: 517-774-3227.

*CMU is an Affirmative Action/Equal Opportunity Institution.*

### MOLECULAR BIOLOGIST

Senior research associate position available to participate in an ongoing research program to study the regulation of biosynthesis of extracellular matrix proteins. The successful applicant will have the opportunity to develop an independent research project in the future. A Ph.D. degree and experience in molecular biology and recombinant DNA techniques are required. Some postdoctoral training is preferred. The position includes a full-time technician, and is available immediately. The salary will be competitive and based on qualifications and experience. Please send curriculum vitae and names of references to: **Dr. Suzanne Bourgeois, Director, Regulatory Laboratory, The Salk Institute for Biological Studies, P.O. Box 85800, San Diego, CA 92138.** Telephone: 619-453-4100, Extension 365. *Equal Opportunity Employer M/F/H/V.*

**MOLECULAR BIOLOGIST:** The Department of Biology of The University of Akron has an assistant professor, tenure-track, position available September 1988. A Ph.D. with postdoctoral experience is preferred, and preference will be given to research involving eukaryotic systems. Responsibilities include developing an active research program, developing a molecular biology course for graduate students, and some involvement in an introductory undergraduate genetics course. Send curriculum vitae, description of research interests, and three letters of recommendation to: **Dr. Dale Jackson, Chair, Department of Biology, The University of Akron, Akron, OH 44325.** The deadline for applications is 7 February 1988. *Women and minorities are encouraged to apply. The University of Akron is an Equal Education and Employment Institution.*

**PHYSIOLOGIST**—Assistant Professor, tenure-track. Ph.D. required with expertise in systemic physiology. Responsibilities will include teaching human anatomy and physiology to allied health and nursing students and teaching other departmental physiology courses. The applicant should be willing to supervise undergraduate/graduate research. Expected starting date: fall 1988. Send a letter of application, curriculum vitae, transcripts of all undergraduate and graduate work, and three letters of recommendation to: **Cynthia A. Surmacz, Ph.D., Chairperson, Search and Screen Committee, Department of Biological and Allied Health Sciences, Bloomsburg University, Bloomsburg, PA 17815.** All materials must be postmarked no later than 1 March 1988. Our department emphasizes teaching excellence. *Bloomsburg University is an Affirmative Action/Equal Opportunity Employer. Minorities, women, and other protected classes are encouraged to apply.*

## POSITIONS OPEN

### MOLECULAR BIOLOGY POSTDOCTORAL POSITION

A position is available immediately to join a laboratory investigating the molecular biology of human lung cancer. Applicants should have a recent Ph.D. in molecular biology, with a strong background in recombinant DNA technology. Projects will focus on the role of oncogenes and growth factors in tumor progression. Send curriculum vitae, thesis abstract, and names and addresses of three references to: **Dr. Jack A. Roth, Box 109, M. D. Anderson Hospital and Tumor Institute, 1515 Holcombe Boulevard, Houston, TX 77030.** *An Equal Opportunity/Affirmative Action Employer.*

### NMR INSTRUMENTATION SPECIALIST

Purdue University, Department of Chemistry, has an immediate opening for an experienced NMR specialist. This person will be responsible for both routine maintenance and special project development on a variety of NMR spectrometers ranging in field strength from 200 to 600 MHz. A bachelor's level degree in an engineering or physical science and 3 years of experience in NMR instrumental techniques are required. The educational requirement may be waived in favor of equivalent field experience. A résumé and three letters of recommendation should be sent by 1 April 1988 to: **Professor Harry Morrison, Head, Department of Chemistry, Purdue University, West Lafayette, IN 47907.** *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

### NEUROSCIENCES

**ASSISTANT OR ASSOCIATE PROFESSOR** of neurosciences. Requirements: Ph.D. with preparation in neurosciences and anatomy; commitment to teaching podiatric medical students and graduate students; minimum 5 years of full-time teaching experience; postdoctoral teaching/research experience. Applicants should be engaged in active ongoing research program. Responsibilities include lecture, laboratory, and student advising. Salary open. Send résumé, transcripts, and three letters of recommendation by 10 February 1988 to: **Sister John Karen Frei, O.P., Ph.D., Associate Vice President, Academic Health Science Center, Barry University, Miami Shores, FL 33161.**

### PLANT AQUATIC ECOLOGIST

The Augustana College Biology Department has a tenure-track opening for an assistant professor (Ph.D.) in September 1988. Applicants must be prepared to teach aquatic ecology, principles of ecology, and participate in an introductory biology course. Staff members are expected to maintain active research programs that involve undergraduate students. Augustana is a liberal arts college related to The Evangelical Lutheran Church in America. Applications should include curriculum vitae, complete transcripts, three letters of professional evaluation including critical comments on past teaching performance and research ability, and the applicant's statement of plans for future professional development. Applications accepted until 1 February 1988, or until position is filled. Send applications to:

**Mrs. Jeanne Kruse  
Administrative Assistant  
Augustana College  
Sioux Falls, SD 57197**

**PLANT ECOLOGIST.** Kalamazoo College invites applications for a 1-year sabbatical replacement position with teaching responsibilities in botany, ecology, environmental sciences. Send letter of application, curriculum vitae, and three letters of recommendation by 15 February 1988 to: **Dr. David A. Evans, Department of Biology, Kalamazoo College, Kalamazoo, MI 49007.** *Kalamazoo College is committed to diversity and particularly encourages women and members of minority groups to apply. Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available to engage in projects on G protein-mediated transmembrane signaling. Experience in molecular biology and membrane biochemistry is desirable. Start date, April 1988. Salary up to \$18,000. Applicants should send curriculum vitae, statement of research experience, and names of three persons who may be contacted for reference to: **Dr. Ifeanyi J. Arinze, Department of Biochemistry, Meharry Medical College, Nashville, TN 37208.**

## POSITIONS OPEN

### POPULATION BIOLOGIST

The Department of Biology at Princeton University plans to make three appointments in the next few years in the areas of ecology, behavior, evolution, and population or quantitative genetics. We expect to make one appointment in 1988; the rank is open. Preference will be given to those with strong theoretical work that complements the interests of existing members of Princeton's Ecology, Evolution, and Behavior group: **Bonner, Gould, Grant, Horn, Kreitman, Lisk, Pierce, Rubenstein, Sullivan, and Terborgh.** The closing date for applications is 15 March 1988. Applicants should send curriculum vitae and arrange for three letters of reference to be sent to: **Henry Horn, Search Committee, Department of Biology, Princeton University, Princeton, NJ 08544.**

*Princeton University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION**—A postgraduate research position is available immediately for the production of cDNA clones from genetic strains of mosquitoes and from various arboviruses. Experience with molecular biological techniques is required; virological experience advantageous. This position has NIAID support for 3 years. Salary: \$21,948 to \$23,964, depending upon qualifications. Send curriculum vitae and three letters of recommendation by 15 February 1988 to: **Dr. J. L. Hardy, School of Public Health, University of California at Berkeley, Berkeley, CA 94720.** *Affirmative Action/Equal Opportunity Employer.*

### POSTDOCTORAL POSITION

Position available for protein chemist to work in isolation of growth-promoting factors in vascular tissue. Studies directed at characterization of growth factors from cultured vascular cells at both the protein and molecular biology levels. We are seeking a Ph.D. in biochemistry, with experience in purification procedures and antibody production. Applicants should respond with résumé, statement of research interest, and three references by 15 February 1988, to: **David J. Riley, M.D., Professor of Medicine, UMDNJ—Robert Wood Johnson Medical School (formerly Rutgers Medical School), CN-19, New Brunswick, NJ 08903-0019.** *An Equal Opportunity/Affirmative Action Employer. M/F/H/V.*

**POSTDOCTORAL POSITION** in reproductive immunobiology available for Ph.D., M.D., or holders of equivalent degrees. The areas under study include the role of a protein derived from the eosinophil granule in biologic responses culminating in labor in pregnant women and analyses of the functions of placental X cells and placental-site giant cells. Studies involve the use of monoclonal antibodies and recombinant DNA. Applicants must be United States citizens or hold an immigrant's visa. Contact: **Dr. Gerald J. Gleich, Chairman, Department of Immunology, Mayo Foundation, Rochester, MN 55905.** Telephone: 507-284-2511. *An Equal Opportunity/Affirmative Action Institution.*

**POSTDOCTORAL POSITION** on NIH-training grant to study mechanisms of insulin action and insulin resistance in the liver. Applicant should have experience in one or more of the following: molecular biology, lipoproteins, protein kinases, and membrane glycoproteins. Position must be filled before 30 June 1988. Send résumé and names of three references to: **Dr. John M. Amatruda, Endocrine-Metabolism Unit, University of Rochester School of Medicine, Box 693, 601 Elmwood Avenue, Rochester, NY 14642.**

**POSTDOCTORAL POSITIONS** are available immediately for studies of multidrug resistance (MDR). Areas include the cell biology and molecular pharmacology of "classic" MDR and its circumvention as well as the molecular biology and pharmacology of "atypical" MDR. St. Jude Children's Research Hospital is a multidisciplinary biomedical research center with many opportunities for scientific interactions. Annual salaries are commensurate with experience, and begin at \$22,000. Send curriculum vitae and names of three references to: **William T. Beck, Ph.D., Department of Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101.**

*St. Jude Children's Research Hospital is an Affirmative Action/Equal Opportunity Employer.*

## SCIENTIST II

The Chemistry Department of Zeecon Research Institute, a division of Sandoz Crop Protection Corporation, is seeking an experienced chemist in peptide synthesis.

This scientist will actively participate in a research program focused upon the discovery and development of neuropeptides and related substances as agents for insect control and plant protection. Laboratory work will involve the use of an automated peptide synthesizer, as well as manual purification and characterization of synthetic peptides.

Candidates should have an MS degree plus three years experience, or a BS degree with eight years experience, in chemistry or biochemistry; experience in peptide synthesis, purification and characterization; and experience with modern methods of organic synthesis and analysis. Candidates must also be able to maintain accurate records and to communicate the results of their work effectively.

To apply for this position, please send curriculum vitae and three references to:



**Sandoz Crop Protection Corporation**  
**Zeecon Research Institute**  
**Human Resources Department**  
**975 California Avenue**  
**Palo Alto, CA 94304-1104**  
**AA/EOE**

## Research Scientist/ Biochemical Engineer

Collagen Corporation, engaged in the research, development, production and marketing of differentiated biomedical products, seeks a Research Scientist/Biochemical Engineer to join our Process Development area. The selected candidate will be involved in protein isolation and purification processes, concentrating in the critical and completion stages of process development.

You'll exercise independent judgment to determine and develop solutions through research and will frequently interact with members of our Scientific and Production staffs. Our ideal candidate will have an MS or Ph.D in chemical engineering, biochemical engineering or related field with 3-5 years' relevant experience with a pharmaceutical or biotechnology firm.

Collagen Corporation offers a unique and stimulating environment where employees enjoy both the autonomy and team support needed to succeed. To learn more about this position and our attractive salaries and benefits, send your resume, with salary history, to: S. Hansen, Human Resources, Collagen Corporation, 2500 Faber Place, Palo Alto, CA 94303. We are an equal opportunity employer.



**COLLAGEN**  
 CORPORATION

## Ag Chemical Research Is Growing Faster For The Abbott Scientist

Abbott Laboratories, 1988. A \$4 billion leader in several worldwide scientific markets. A market leader in biological pesticides and plant growth regulators. A company that is committed to well-funded, well-managed research. An opportunity for your career.

### DEVELOPMENT SCIENTIST

Must have an MS and at least 2 years experience or a BS with 3-5 years experience in plant physiology or plant biochemistry. This position in ag R&D involves a variety of activities in both the lab and greenhouse. Knowledge of lab instrumentation, radiochemicals and organelle isolation desired. Industrial agricultural products experience a plus.

### MOLECULAR BIOLOGIST/ BIOCHEMIST

Position involves extensive interaction with fermentation, entomology and regulatory affairs groups in the development of pesticides and other ag products. Candidate will have Ph.D. in Molecular Biology or Biochemistry with a MINIMUM of 2 years post-doctoral experience involving Bacillus genetics or related areas. Industrial research background with knowledge of microbial insecticides preferred.

We are located in an attractive suburban area, 30 miles north of Chicago and offer an attractive salary and benefit package. For consideration, send resume indicating position desired and salary history, in confidence to: **Keith Allen, Corporate Placement, Dept. SCI 1/8.** Abbott is an Affirmative Action Employer.

**ABBOTT**  
 ABBOTT PARK IL 60064

"HEALTH CARE WORLDWIDE"

## PRODUCT DEVELOPMENT (Medical Nutritional Products)

**Ross Laboratories**, division of Abbott Laboratories and the leading producer of infant and medical nutritional products, has newly created positions available in Product Research and Development.

The individuals we are seeking should have a PhD in Biochemistry, Pharmacy or a related discipline. Prior experience in industry is helpful but not required.

Projects will involve significant technical challenge and the opportunity to interact with both technical and non-technical groups including outside vendors. Excellent communication skills, both oral and written, are essential.

We offer the opportunity to work in a research environment stimulated by a long history of success and challenged with the goal of developing new enteral nutritional and/or pharmaceutical products.

Interested persons should forward resume in confidence to: **Technical Recruiter, Dept. 317.**



**ROSS LABORATORIES**  
 Division of Abbott Laboratories, USA  
 625 CLEVELAND AVENUE  
 COLUMBUS, OHIO 43216  
 An Equal Opportunity Employer M/F

ROSS LABORATORIES

# Committed To Scientific Excellence Opportunities In Drug Safety



The Sterling Research Group, the worldwide research and development organization of Sterling Drug Inc., is committed to excellence in pharmaceutical research and development. We have a growing worldwide R&D effort aimed at bringing innovative products to the marketplace.

We are currently strengthening our program for evaluating the safety of new pharmaceutical entities. We have toxicology and pathology units in Rensselaer, New York; Alnwick, England; and Dijon, France. These groups together, make up a team of multidisciplinary professional scientists focused on excellence in pharmaceutical safety.

Our objective is to improve the organization's expertise in toxicology and pathology by adding motivated scientists with excellent scientific training and proven track records.

The following positions are currently available:

## **Rensselaer:**

**Pathologist** - D.V.M. degree and board certification in veterinary pathology and a minimum of five years relevant scientific experience.

## **Dijon:**

**Director, Department of Toxicology** - Ph.D. in Toxicology or related discipline and demonstrated record of scientific management and leadership ability.

**Section Head, Safety Studies** - Ph.D. in Toxicology and a minimum of five years of relevant experience in Drug Safety Evaluation.

**Section Head, Anatomical and Clinical Pathology** - D.V.M. degree with appropriate certification and a minimum of five years of relevant scientific experience.

## **Alnwick:**

**Toxicologic Pathologist** - D.V.M. degree with appropriate certification.

**Section Head, Safety Studies** - Ph.D. in Toxicology and a minimum of five years of relevant experience in Drug Safety Evaluation.

If you have an advanced degree in a relevant biological science and would like to be considered for a challenging career opportunity in our international drug safety effort, please send your resume to:

Mr. William F. Sheldon  
Employment Manager  
Sterling-Winthrop Research Institute  
Sterling Research Group  
A Division of Sterling Drug Inc.  
Columbia Turnpike  
Rensselaer, New York 12144

An Equal Opportunity Employer M/F/H/V

## POSITIONS OPEN

**POSTDOCTORAL POSITION**—Conduct basic and applied research on the interaction of slow electrons with excited molecules. Thorough knowledge of advanced theoretical and experimental physics and electron and laser physics. Knowledgeable in advanced electronics and use of microcomputers. 8:00 a.m. to 5:00 p.m. Salary \$22,200. Send résumés to: **Tennessee Department of Employment Security, P.O. Box 831, Knoxville, TN 37901. Attention: Mr. Bob Edixon.**

**POSTDOCTORAL POSITION** available starting August 1988 to study the structure, function and distribution of the proton pumps involved in acidification of intracellular compartments. Experience in membrane protein chemistry, immunological techniques, or molecular biology desirable. Send curriculum vitae, reprints and three letters of reference to: **Dr. Michael Forgac, Department of Physiology, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111.**

**POSTDOCTORAL POSITION** available now for pharmacologist/biochemist to examine the role of increased ionized calcium in toxicity produced by halogenated hydrocarbon toxins. Experience with calcium-activated enzymes or isolation and characterization of mutant populations of somatic cell lines desirable. Curriculum vitae and names of three references to: **Dr. Leon Moore, Department of Pharmacology, Uniformed Services University, 4301 Jones Bridge Road, Bethesda, MD 20814.**

**POSTDOCTORAL POSITION** in biofilm microbial community structure. Research will involve recombinant DNA, comparative physiology and rRNA sequencing, in situ hybridization and electron microscopy to characterize natural communities developed in bioreactors. Prefer background in microbiology, experience in EM desirable. Available immediately; salary \$20,000; closing date: 1 March 1988. Send résumé and names of three references to: **Dr. David Stahl, College of Veterinary Medicine, 2001 South Lincoln Avenue, Urbana, IL 61801. Telephone: 217-333-8418.**

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

## **POSTDOCTORAL POSITION IN PLANT PHYSIOLOGICAL ECOLOGY**

Postdoctoral position available immediately for field studies of ecophysiological aspects of host and mistletoe interactions. Study involves mineral nutrition, photosynthesis, water relations and use of stable isotopes. Send curriculum vitae and list of references to: **Dr. James Ehleringer, Department of Biology, University of Utah, Salt Lake City, UT 84112. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITIONS—PLANT MOLECULAR BIOLOGY/GENETICS** with United States Department of Agriculture, Agricultural Research Service. Two postdoctoral positions are available immediately to participate in studies of gene inactivation in plants. Research focuses on the development of a system for in vivo inactivation of genes in crop species using antisense RNA. Previous experience in molecular biology, plant biochemistry and/or plant genetics required. Salary range GS-11, \$27,172/GS-12, \$32,567. For information on the research program contact: **Dr. William Belknap, telephone: 415-486-3631, Western Regional Research Center, USDA, ARS, 800 Buchanan Street, Berkeley, CA 94710.** For application procedures/forms, contact: **Rita Mallard, ARS Personnel Division, Beltsville, MD, telephone: 301-344-3138.** Applications should be marked Code 8W003. *An Equal Opportunity Employer.*

## **POSTDOCTORAL RESEARCH ASSOCIATES BIOCHEMISTS/CELL BIOLOGISTS**

Positions are currently available to study the cellular biology and biochemistry of wound healing. Primary research interests include the isolation and characterization of several unique growth factors. Candidates should have experience in characterization of biologically active proteins, as well as bioassay, and cell culture experience. Send curriculum vitae and references to: **David R. Knighton, M.D., Department of Surgery, Box 120 UMHC, University of Minnesota, Minneapolis, MN 55455.**



## POSITIONS OPEN

**POSTDOCTORAL POSITION—NEUROENDOCRINOLOGY.** Available spring 1988. Focus of the research is on hypothalamic and placental factors which regulate prolactin surges during pregnancy. Experience in animal surgery, catecholamine measurements, RIA helpful. Send curriculum vitae and names of three references to: **Dr. James Voogt, Department of Physiology, Kansas University Medical Center, Kansas City, KS 66103.** Applications reviewed and accepted until position is filled. *Affirmative Action/Equal Opportunity Employer.*

### POSTDOCTORAL/RESEARCH ASSOCIATE

A postdoctoral/research associate position is available for September 1988 to study muscle gene expression in *Drosophila*. We are studying promoter and splicing function in transgenic flies and cell-free systems. Applicants must have a Ph.D. and experience in recombinant DNA methods will be favored. Starting salary is competitive. Send curriculum vitae and names of three references to: **Dr. Robert V. Storti, Department of Biochemistry, University of Illinois College of Medicine, 1853 West Polk Street, Chicago, IL 60612.**

### POSTDOCTORAL/RESEARCH ASSOCIATE

Senior research associate position available to participate in an ongoing research program to study the regulation of biosynthesis of extracellular matrix proteins. The successful applicant will have the opportunity to develop an independent research project in the future. A Ph.D. degree and experience in molecular biology and recombinant DNA techniques are required. Some postdoctoral training is preferred. The position includes a full-time technician and is available immediately. The salary will be competitive and based on qualifications and experience. Please send curriculum vitae and names of references to: **Dr. Suzanne Bourgeois, Director, Regulatory Biology Laboratory, The Salk Institute for Biological Studies, P.O. Box 85800, San Diego, CA 92138. Telephone: 619-453-4100, Extension 365.** *Equal Opportunity Employer M/F/H/V.*

### POSTDOCTORAL RESEARCH ASSOCIATE

Position available to study biochemical mechanisms of parathyroid hormone action in epithelia and the cellular mechanisms of urinary acidification. Preference given to Ph.D. in biochemistry, with expertise in one or more of the following areas: enzymology, receptor assays, membranes, flow cytometry, lipids. Send curriculum vitae and the names and addresses of three references to: **Dr. Sandra Sabatini, Department of Internal Medicine, Texas Tech University HSC, Lubbock, TX 79430.** *Equal Opportunity Employer.*

### POSTDOCTORAL TRAINING IN LEUKOCYTE BIOLOGY

We have several postdoctoral fellowships available now for individuals interested in obtaining advanced training in leukocyte biology. Successful applicants will have the opportunity of joining and working with a diverse, multidisciplinary group of scientists interested in multiple aspects of macrophage physiology, including surface receptors, intracellular mechanisms of signal transduction cell-cell recognition, gene regulation, and tumor biology. Emphasis in training is placed on analysis of a problem of the fellow's choice in the above areas with tools in contemporary cellular and molecular biology. The five faculty members in the group include individuals skilled in leukocyte biology, protein chemistry, cell biology, or molecular biology. Previous training in biochemistry, protein chemistry, receptor biology, or cellular/molecular biology would be particularly suitable, though not essential. An attractive stipend, commensurate with experience, will be offered. Openings are available at several levels of training. Interested applicants should send curriculum vitae to:

**Dolph O. Adams**  
Laboratory of Cell and Molecular Biology  
of Leukocytes  
Department of Pathology  
Duke University  
Box 3712  
Durham, NC 27710  
*Equal Opportunity Employer*

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH ASSOCIATE—IMMUNOLOGY/BIOCHEMISTRY;** University of Massachusetts Medical School, Division of Oncology. Position available immediately in the pre-clinical and clinical development of immunoconjugates for cancer therapy. Experience in the areas of protein biochemistry, immunoglobulin modification and analysis, monoclonal antibodies and tissue culture desirable. Academic appointment at the University of Massachusetts Medical School, depending on qualifications. Position is for 1 or 2 years. Please send curriculum vitae and three letters of reference to: **Dr. Thomas Griffin, Director, Clinical Research, Department of Medicine, Division of Oncology, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01655.** *An Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL RESEARCH ASSOCIATE.

Position available to conduct research in molecular pharmacology, studying the effect of nucleoside analogs on DNA methylation, using recombinant DNA techniques. Experience in nucleic acid technology, microbial genetics, or protein chemistry desirable. Candidates should have a Ph.D. degree in biochemistry or microbiology. Send curriculum vitae and references, to: **Dr. Stanley Friedman, SUNY Health Science Center at Brooklyn, 450 Clarkson Avenue, Box #29, Brooklyn, NY 11203.** *Equal Employment Opportunity/Affirmative Action Employer. DMC #C-0156.*

**POSTDOCTORAL/RESEARCH POSITION IN CARBOHYDRATE CHEMISTRY.** The research deals with carbohydrate transformations in the sea. The applicant should have experience with polysaccharide characterization techniques, including linkage characterization, GC-MS and LC. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. K. Mopper, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149; telephone: 305-361-4721.** *UM is an Equal Opportunity/Affirmative Action Employer.*

### REPRODUCTIVE BIOLOGIST

A private, nonprofit research institute is seeking a reproductive biologist to head up a group of five to six workers to conduct research on the physiological role of the newly discovered intraovarian polypeptide regulators. A minimum of 2 years of postdoctoral training and experience in gonadal cell culture is required. Initial salary, equipment, and supplies will be provided with the understanding that the candidate is expected to participate with a group of biochemists and molecular biologists to secure funding to work on the isolation, characterization, and physiology of the polypeptide regulators in ovarian follicular fluid.

Send curriculum vitae, statement of research interest, and the names of three references to: **Nicholas Ling, Ph.D., Whittier Institute for Diabetes and Endocrinology, 9894 Genesee Avenue, La Jolla, CA 92037.** Closing date for applications is 31 January 1988.



**CYTRX**  
CORPORATION

### RESEARCH PROGRAM DIRECTOR CARDIOVASCULAR

CytRx Corporation, a development stage public company, has an immediate opening for a Ph.D. pharmacologist/toxicologist with experience in developing cardiovascular therapeutics. Must have knowledge of all aspects of preclinical development of pharmaceuticals as well as laboratory management skills. Candidates should be self-motivated independent scientists with two or more years of postdoctoral experience in any of the following areas: antiplatelet agents, hemorheology, thrombosis, or vascular cell biology. CytRx offers a stimulating research environment with opportunity available for academic collaborations and scientific publications. Please send your curriculum vitae and letter of interest to: **Dr. Lee Herron, CytRx Corporation, 150 Technology Parkway, Technology Park/Atlanta, Norcross, GA 30092.**

## POSITIONS OPEN

### RESEARCH ASSISTANT PROFESSOR

We seek an individual to join our study of functional organization of sound direction and sound level in the auditory forebrain. Experiments involve single-unit recording in anesthetized cats and awake monkeys, and neuroanatomical tracing of pathways. The position is funded for 5 years, with a beginning salary of \$18,000 to \$27,500 depending upon experience. A Ph.D. in a relevant field is required, and expertise in one or more of the following areas is desirable: acute or chronic single-unit recording techniques, auditory physiology, neuroanatomical techniques, training of monkeys, electrophysiological instrumentation. Inquiries or applications consisting of curriculum vitae and three references should be sent by 15 February 1988 to: **Dr. T. J. Imig, Department of Physiology, Kansas University Medical Center, Kansas City, KS 66103.** *Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE:** Position available with background in exercising rats, enzyme kinetics, pharmacokinetics and computer modeling. Excellent research facilities. Ph.D. in pharmacology or biochemistry. Send curriculum vitae by 5 February 1988 to: **Dr. Satu Somani, Department of Pharmacology, Southern Illinois University School of Medicine, P.O. Box 19230, Springfield, IL 62794-9230.**

The Cell Biology Section of the Experimental Therapy Department at the Wellcome Research Laboratories (Research Triangle Park, North Carolina), is presently searching for a **SCIENTIST** to initiate and conduct an independent research program involving hemopoiesis. This newly created position will primarily involve the establishment of an *in vitro* hemopoietic colony assay system to assess bone marrow toxicity of potential therapeutic compounds and conduct research related to hemopoiesis.

The successful candidates will have significant cell culture experience with specific knowledge of hemopoietic colony assay systems desirable, demonstrated ability to conduct independent research and a desire to interact in a multidisciplinary approach to drug development.

Interested candidates should send curriculum vitae to: **Employment Supervisor, Position #3019, Burroughs Wellcome Co., 3030 Cornwallis Road, Research Triangle Park, NC 27709.**

*Burroughs Wellcome is an Equal Opportunity/Affirmative Action Employer. Qualified minority, female, veteran and handicapped individuals are encouraged to apply.*

### SENIOR EUKARYOTIC MOLECULAR GENETICIST

The Department of Anatomy and Cellular Biology of Tufts University School of Veterinary Medicine is seeking an established eukaryotic molecular geneticist to develop and direct the School's programs in this area. The program will be housed in newly renovated, high-quality laboratory space at the School's 634-acre Grafton campus, located 37 miles west of the School's Boston campus. The individual selected will have the opportunity to recruit other scientists for this program and help design and equip this facility. Candidates should possess a doctoral degree, have substantial experience in eukaryotic molecular genetics or a related field, be capable of developing and sustaining a program in this field, and have an excellent record in obtaining competitive funding. Preference will be given to individuals who have expertise in gene expression and the application of techniques of molecular biology to problems in animal biology. We especially seek candidates who would interact well with an existing group involved in molecular, cellular and physiological studies of early development in laboratory and domestic animals and transgenic manipulations thereof, and with neighboring biotechnology companies. Academic appointment can be at the Professor level for the appropriate person. Applications should include a letter of interest, curriculum vitae, a description of current and future goals and current research support, and the names of at least three references, and should be submitted to: **Dr. Bryan Toole, Chairman, Department of Anatomy and Cellular Biology, Tufts University Schools of Veterinary Medicine, Dental Medicine and Medicine, 136 Harrison Avenue, Boston, MA 02111.**

## POSITIONS OPEN

### TWO MARINE SCIENTISTS, UNIVERSITY OF CALIFORNIA SANTA BARBARA

The Marine Science Institute, University of California, Santa Barbara invites applications for two professional researchers in any field of marine science. Ph.D. required in any field of oceanography or marine science. Each selected candidate will be expected to raise, through extramural funds, 50% of annual salary and develop strong research program. Rank and salary negotiable. One-year appointments with possibility of annual reappointments.

Send letter of interest, curriculum vitae, and names of three references to: **James Kennett, Marine Science Institute, University of California, Santa Barbara, CA 93106.** Apply by 15 February 1988; applications accepted until positions filled. Proof of U.S. citizenship or eligibility for U.S. employment required prior to employment (*Immigration Reform and Control Act of 1986*). An Equal Opportunity/Affirmative Action Employer.

**SENIOR RESEARCH ASSOCIATE**—The Division of Trauma in the Department of Surgery at the State University of New York at Stony Brook is recruiting for an individual to develop and organize its research program in trauma, burns, shock, sepsis and intensive care. A Ph.D. in physiology, and a master's in molecular biology with 5 years of laboratory experience in trauma, burns, shock, sepsis, or intensive care are required. Private research funding is preferred. Please send curriculum vitae to:

**David J. Kreis, Jr., M.D.**  
Chief, Division of Trauma  
Health Sciences Center (HSC) T19, 060  
SUNY at Stony Brook  
Stony Brook, NY 11794

*SUNY at Stony Brook is an Equal Opportunity/Affirmative Action Employer.*

**SENIOR VICE PRESIDENT AND PROVOST**—University of Houston—Clear Lake, growing upper-level and graduate/research university of 7000, one of four institutions governed by University of Houston System, next to Johnson Space Center. Strong administrative and scholarly/professional achievements; earned doctorate. Very competitive salary. Nominations or application letter with curriculum vitae to: **Ms. M. A. Shallberg, University of Houston—Clear Lake, Houston, TX 77058.** Affirmative Action/Equal Employment Opportunity. *Women and minorities encouraged.*

### VISITING ASSISTANT PROFESSORSHIP

A 1-year temporary replacement position to teach a one-semester introductory course in biology for non-majors; to assist in the teaching of a one-semester introductory biology course for majors; and to teach an upper-level course in some aspect of invertebrate zoology. Send curriculum vitae and three letters of reference by 1 February 1988 to:

**Tom Brady, Chairman**  
Biology Department  
Hamilton College  
Clinton, NY 13323

*Hamilton College is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

**WILDLIFE BIOLOGIST/ASSISTANT PROFESSOR (Ph.D.)**. Tennessee Technological University is seeking a wildlife biologist to fill a tenure-track position in the Department of Biology beginning as early as spring quarter 1988 (24 March 1988). Preference will be given to persons with expertise in waterfowl biology and wetlands ecology. The individual will be expected to teach courses in wildlife science, direct graduate thesis research, and conduct an extensive program of research and scholarly activity. Duties will also include teaching general zoology and coordinating the general zoology program. Salary will be commensurate with experience and qualifications. Closing date is 15 February 1988 or until filled. *Tennessee Technological University is an Affirmative Action/Equal Employment Opportunity Employer.* Applicants should send letter of application, complete résumé, names, addresses, and telephone numbers of four references to:

**Dr. Michael J. Harvey, Chairman**  
Department of Biology  
Tennessee Technological University  
Cookeville, TN 38505

## POSITIONS OPEN

### VISITING ASSISTANT PROFESSORSHIP

A 1-year temporary replacement position to teach a one-semester course in microbiology; to assist in the teaching of a one-semester introductory biology course for majors; and to teach an upper-level course in biochemistry, immunology, or virology. Applicants should send curriculum vitae and three letters of reference by 1 February 1988 to:

**Tom Brady, Chairman**  
Biology Department  
Hamilton College  
Clinton, NY 13323

*Hamilton College is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

## CONFERENCES

**SEPTIC SHOCK CONFERENCE:** The Naval Medical Research Institute and the Naval Medical Research and Development Command will present a conference on Molecular and Cellular Mechanisms of Septic Shock, 29 February to 1 March 1988 in Bethesda, Maryland. To register (\$30) or for information, contact: **Louise Salmon, AIBS, 730 11th Street, NW, Washington, DC 20001.** Telephone: 202-628-1500. Leading researchers will cover receptor alterations, role of endotoxin, and lymphokines in septic shock. Poster session included, abstracts invited.

## COURSE

### MOLECULAR ENDOCRINOLOGY AND TECHNIQUES FOR HORMONE ACTION 21 to 26 February 1988

This course will consist of lectures in methodology with comprehensive syllabus covering receptors, gene transcription, mRNA and protein synthesis, recombinant DNA, protein hormones, and cyclic nucleotides.

Co-directors: **W. T. Schrader** and **B. W. O'Malley**  
Fee: \$365 (\$245: fellows and students)  
For further information contact:

**Bonnie Cuthbert**  
Department of Cell Biology  
Houston, Texas 77030  
Telephone: 713-799-6200  
Deadline—29 January 1988

## GRADUATE TRAINING PROGRAM

### GRADUATE TRAINING PROGRAM IN EXPERIMENTAL PATHOLOGY

The Experimental Pathology Program at the University of California, San Diego, has graduate fellowships available in September 1988. This interdepartmental program places a particular emphasis on understanding the molecular mechanisms of human disease. Research areas include viral carcinogenesis and oncogenic proteins (**G. Walter; J. Lipsick**), molecular basis of retinoblastoma (**W.-H. Lee**), virus-induced autoimmune disease (**R. Fujinami**), mechanisms of signal transduction (**J. Feramisco**), neuropathology of the AIDS virus (**C. Wiley**), differentiation of African trypanosomes (**C. Davis**), and cardiovascular disease (**C. Bloor**). This Ph.D. program is open to students with a Bachelor's degree who wish to enter medical research without becoming physicians, and also to those with an M.D. Further information and application forms available from: **Dr. J. Lipsick, Department of Pathology M-012, University of California, San Diego, La Jolla, CA 92093.**

## TRAINING PROGRAMS

### CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a doctor of optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Ph.D.-O.D. Program Director, Admissions Office, The New England College of Optometry, Room 14, 424 Beacon Street, Boston, MA 02115.**

## TRAINING PROGRAM

**NASA PLANETARY BIOLOGY INTERNSHIPS.** The Marine Biological Laboratory, Woods Hole, MA, invites applications from graduate students and seniors accepted in graduate programs for \$2000 awards plus travel to participate in research at NASA centers and collaborating institutions for approximately 8 weeks. Application deadline: 1 March 1988. For information and applications, contact: **Michael Enzien, Planetary Biology Intern Program, Department of Biology, Boston University, 2 Cummington Street, Boston, MA 02215.** An Equal Opportunity/Affirmative Action Institution.

## SYMPOSIUM

### BIOCHEMICAL ENDOCRINOLOGY SYMPOSIUM

The Tenth Annual University of California, Riverside-Nichols Institute Symposium on Cellular and Molecular Endocrinology will be held Thursday and Friday, 24 March and 25 March 1988 on the University of California, Riverside campus at the foot of the Box Springs Mountains.

The purpose of the meeting is to foster communication among scientists who are interested in the cellular, biochemical and structural aspects of endocrinology. The meeting will have five sessions devoted to the topics of (a) reproductive biology, (b) insulin and insulin-like growth factors, (c) immunology/cancer, (d) calcium regulating hormones, and (e) steroid receptors.

Fifteen internationally recognized scientists will present lectures on their work in these areas. They include the following: **Allan Balmain** (Scotland), **Bruce Beutler** (Dallas), **Craig V. Byus** (Riverside), **Patricia K. Donahoe** (Boston), **Ronald Evans** (San Diego), **Mark Haussler** (Tucson), **C. Ronald Kahn** (Boston), **Henry M. Kronenberg** (Boston), **Gregory R. Mundy** (San Antonio), **Hugh Niall** (South San Francisco), **Anthony W. Norman** (Riverside), **Lawrence G. Raisz** (Farmington), **Alan R. Saltiel** (New York), **Frank Talamantes** (Santa Cruz), and **Stuart H. Yuspa** (Bethesda).

Registration fees for the meeting are \$25.00 per participant (\$15.00 for postdoctoral students/fellows; \$10.00 for students and \$125.00 for physicians wishing to enroll in the Continuing Medical Education [CME] Program [Category 1] through the University of California, Los Angeles School of Medicine).

For registration and further information please write: **Dr. Anthony W. Norman, Endocrinology Symposium, Division of Biomedical Sciences, University of California, Riverside, CA 92521.** Telephone: 714-787-5705.

## FELLOWSHIPS

A limited number of **POSTDOCTORAL FELLOWSHIP** positions will be available in the fall of 1988 for research in marine sciences and ocean engineering. Research areas include physical oceanography, macroalgal botany, invertebrate larval biology, zooplankton biology, invertebrate reproduction and development, fish ecology and behavior; mechanical, electrical or environmental engineering. Deadline for application is 1 April 1988. Specify area of interest with request for information brochure and application packet from: **Dr. Marsh J. Youngbluth, Postdoctoral Program, Harbor Branch Oceanographic Institution, Inc., 5600 Old Dixie Highway, Fort Pierce, FL 34946.** An Equal Opportunity Employer.

### POSTDOCTORAL FELLOWSHIP

The Division of Medical Genetics, Emory University School of Medicine, is seeking applications for a postdoctoral fellowship to study the molecular techniques of RFLP linkage analysis and cloning the Emery-Dreifuss Muscular Dystrophy gene. To apply, send curriculum vitae and a synopsis of current and future research interest to:

**Dr. Louis J. Elsas, II, Director**  
Division of Medical Genetics  
Emory University School of Medicine  
2040 Ridgewood Drive  
Room 130  
Atlanta, GA 30322

Deadline for receipt of applications is 22 January 1988.

*Emory University School of Medicine is an Equal Opportunity Affirmative Action Employer.*

# Postdoctoral Scientists

The Molecular Pharmacology Department, directed by Dr. Stanley T. Crooke at Smith Kline & French Laboratories, located in suburban Philadelphia, is offering Postdoctoral Research opportunities in several ongoing research projects. Postdoctoral scientists will work in close association with SK&F scientists who are involved in the basic research process of novel drug-target and drug discovery. Positions are currently available in the following areas.

## Phospholipases

We are seeking a Postdoctoral Scientist to study the enzymology and regulation of phospholipases. The successful candidate will study the regulation and enzyme reaction mechanism of mammalian phosphoinositide-specific phospholipase C and/or mammalian phospholipase A<sub>2</sub> using a combination of genetic, cell biological, and classical biochemical techniques.

The successful candidate is required to have:

- Ph.D. in Biochemistry, Molecular Pharmacology, or a related discipline with 0-2 years postdoctoral experience.
- Training in protein biochemistry, molecular biology, cell biology, or related discipline.
- Experience and/or practical knowledge in enzyme kinetics, biochemistry of phospholipids, and signal transduction mechanisms.

## Ubiquitin

The Postdoctoral Scientist will participate in genetic and biochemical studies with the goal of understanding the role of ubiquitination processes in cellular physiology and pathophysiology. This is a multidisciplinary research project involving protein engineering (see J. Biol. Chem. 262: 14213, 1987), structural characterization, enzymology, cell physiology, and mammalian gene regulation.

The successful candidate is required to have:

- Ph.D. with 0-2 years of postdoctoral experience.
- Training in molecular biology, biochemistry, cell physiology, mammalian cell genetics, or related field.

## Topoisomerases

The Postdoctoral Scientist will participate in a program directed at the genetic, biochemical, and pharmacologic characterization of a variety of forms and subtypes of these enzymes and their functional roles in cellular differentiation, transformation and malignancy. The scientist will receive extensive training in molecular biology and cellular pharmacology relating to these enzymes.

The successful candidate is required to have:

- Ph.D. with 0-2 years of postdoctoral experience.
- Training in biochemical pharmacology, cell biology and/or molecular biology.

We consider postdoctoral studies to be of major importance in an individual's career and encourage publication of findings in leading journals and full interaction with the scientific community. Our postdoctoral appointments are normally for two years duration.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send you C.V. and the names of three references to Robert F. Obst, Manager, Personnel Relations, R0121, Smith Kline & French Laboratories, Research and Development Division, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

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