

Roberts in his preface. The book opens with a chapter by Roberts on "basic care and techniques," the coverage of which ranges from classification through environmental conditions, feeding, and collecting to cell and tissue preparation. Two chapters then deal with mutagenesis generally (Grigliatti) and in P-M hybrids (Kidwell). Gene cloning (Pirrotta), in situ hybridization to DNA of chromosomes and nuclei (Pardue), and localization of RNA's in tissue sections by in situ hybridization (Hafen and Levine) are the subjects of the next three chapters. The remaining six chapters cover injection of eggs (Santamaria), P-element-mediated transformation (Spradling), embryology (Wieschaus and Nüsslein-Volhard), cell marking (Lawrence *et al.*), cell surface antigens (Wilcox), and preparation of nucleic acids (Jowett). An appendix gives names and addresses of suppliers of unspecified "specialist items," and a general index and an index of genes, mutants, and chromosome aberrations are included. Techniques in population and quantitative genetics and neurobiology are deliberately omitted from the volume as "representing specialized aspects of fly work" rather than general aspects.—K.L.

Books Received

Conservation Biology. The Science of Scarcity and Diversity. Michael E. Soulé, Ed. Sinauer, Sunderland, MA, 1986. xiv, 584 pp., illus. \$46.50; paper, \$27. Based on a conference, Ann Arbor, MI, May 1985.

Content Analysis of Verbal Behavior. Significance in Clinical Medicine and Psychiatry. L. A. Gottschalk, F. Lolas, and L. L. Viney, Eds. Springer-Verlag, New York, 1986. x, 281 pp., illus. Paper, \$42.50.

The Contribution of Acute Toxicity Testing to the Evaluation of Pharmaceuticals. D. Schuppan, A. D. Dayan, and F. A. Charlesworth, Eds. Springer-Verlag, New York, 1986. xii, 104 pp., illus. \$25.50. From a symposium, Geneva, Oct. 1984.

The Control Revolution. Technological and Economic Origins of the Information Society. James R. Beniger. Harvard University Press, Cambridge, MA, 1986. xiv, 493 pp., illus. \$25.

Cost-Effective Quality Control. Managing the Quality and Productivity of Analytical Processes. James O. Westgard and Patricia L. Barry. American Association for Clinical Chemistry Press, Washington, DC, 1986. x, 230 pp., illus. Paper, \$40; to members, \$30.

Crisis, Health, and Medicine. A Social Critique. Vicente Navarro. Tavistock (Methuen), New York, 1986. vi, 281 pp., illus. \$29.95; paper, \$12.95.

Dark Companions of Stars. Astrometric Commentary on the Lower End of the Main Sequence. Peter van de Kamp. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Hingham, MA). vi pp. + pp. 215–327, illus. \$44.50. Reprinted from *Space Science Reviews*, vol. 43, nos. 3/4 (1986).

Electronic Structure and Electronic Transmissions in Layered Materials. Vincenzo Grasso, Ed. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xii, 517 pp., illus. \$89.50. Physics and Chemistry of Materials with Low-Dimensional Structures, Series A, Layered Structures.

Electronic Wave Forming and Processing Circuits. Hai Hung Chang. Wiley-Interscience, New York, 1986. xiv, 538 pp., illus. \$65.95.

Elementary Particles and Symmetries. Lewis H. Ryder. 2nd ed. Gordon and Breach, New York, 1986. lx, 296 pp., illus. \$54.95. Documents on Modern Physics.

Elements of C. Morton H. Lewin. Plenum, New

York, 1986. xiv, 246 pp. \$29.50. Foundations of Computer Science.

The Emotional Brain. Physiology, Neuroanatomy, Psychology, and Emotion. P. V. Simonov. Plenum, New York, 1986. vi, 267 pp., illus. \$55. Emotions, Personality, and Psychotherapy. Translated from the Russian by Marie J. Hall.

Ethics and Regulation of Clinical Research. Robert J. Levine. 2nd ed. Urban and Schwarzenberg, Baltimore, 1986. xx, 452 pp. \$39.50.

Euclidean and Non-Euclidean Geometry. An Analytical Approach. Patrick J. Ryan. Cambridge University Press, New York, 1986. xviii, 215 pp., illus. \$42.50; paper, \$14.95.

Europe-Japan. Futures in Science, Technology and Democracy. Vincent J. McBrierty, Ed. Published on behalf of the Council of Europe by Butterworths, Kent, UK, 1986. xiv, 172 pp., illus. £19.50. From a conference, Tokyo, June 1985.

Evolution and Classification. The Reformation of Cladism. Mark Ridley. Longman, New York, and Wiley, New York, 1986. x, 201 pp., illus. Paper, \$16.95.

Evolutionary Perspectives and the New Genetics. Henry Gershowitz, Donald L. Rucknagel, and Richard E. Tashian, Eds. Liss, New York, 1986. xii, 192 pp., illus. \$39.50. Progress in Clinical and Biological Research, vol. 218. From a symposium, Ann Arbor, MI, June 1985.

Fertilizer Sulfur and Food Production. J. S. Kanwar and M. S. Mudahar. Nijhoff/Junk, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xxii, 247 pp., illus. \$70.

Fire Safety Science. Proceedings of the First International Symposium (Berkeley, CA, Oct. 1985). Hemisphere, New York, 1986. xvi, 1226 pp., illus. \$135.

A First Course in Coding Theory. Raymond Hill. Clarendon (Oxford University Press), New York, 1986. xii, 251 pp., illus. \$35. Oxford Applied Mathematical and Computing Science Series.

The Fluctuating Enzyme. G. Rickey Welch, Ed. Wiley-Interscience, New York, 1986. xiv, 496 pp., illus. \$95. Nonequilibrium Problems in the Physical Sciences and Biology.

Forest Ecosystems in the Alaskan Taiga. A Synthesis of Structure and Function. K. Van Cleve *et al.*, Eds. Springer-Verlag, New York, 1986. x, 230 pp., illus. \$47.50. Ecological Studies, vol. 57. Based on a conference, Fairbanks, AK, June 1983.

Formaldehyde Release from Wood Products. B. Meyer, B. A. Kotters Andrews, and Robert M. Reinhardt, Eds. American Chemical Society, Washington, DC, 1986. viii, 240 pp., illus. \$49.95. ACS Symposium Series, 316. Based on a symposium, Miami Beach, FL, April 1985.

Foundations of Developmental Genetics. D. J. Pritchard. Taylor and Francis, Philadelphia, 1986. xiv, 372 pp., illus. \$63; paper, \$33.

The History and Preservation of Chemical Instrumentation. John T. Stock and Mary Virginia Orna, Eds. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). viii, 268 pp., illus. \$59. Chemists and Chemistry. From a symposium, Chicago, Sept. 1985.

In Search of Stability. An Assessment of New U.S. Nuclear Forces. Peter Clausen, Allan Krass, and Robert Zirkle. Union of Concerned Scientists, Cambridge, MA, 1986. x, 71 pp., illus. Paper, \$4.50.

In the Company of Animals. A Study of Human-Animal Relationships. James Serpell. Basil Blackwell, New York, 1986. viii, 215 pp. + plates. \$19.95.

Indo-Pacific Fish Biology. Proceedings of the Second International Conference on Indo-Pacific Fishes (Tokyo, July 1985). Teruya Uyeno *et al.*, Eds. Ichthyological Society of Japan, Tokyo, 1986 (U.S. distributor, ISBS, Portland, OR). xii, 985 pp., illus. \$250.

Intraspecific Classification of Wild and Cultivated Plants. B. T. Styles, Ed. Clarendon (Oxford University Press), New York, 1986. xiv, 435 pp., illus. \$85. Systematics Association Special Volume no. 29. From a symposium, Oxford, United Kingdom, Sept. 1984.

Intelligent Decision Support in Process Environment. Erik Hollnagel, Giuseppe Mancini, and David D. Woods, Eds. Springer-Verlag, New York, 1986. xvi, 524 pp., illus. \$90.50. NATO Advanced Science Institutes Series F, vol. 21. From an institute, San Miniato, Italy, Sept. 1985.

Mechanistic Models of Asymmetric Reductions. A. Ohno and S. Ushida. Springer-Verlag, New York, 1986. iv, 105 pp., illus. Paper, \$15. Lecture Notes in Bio-Organic Chemistry, 1.

Medical Care, Medical Costs. The Search for a Health Insurance Policy. Rashi Fein. Harvard University Press, Cambridge, MA, 1986. xii, 240 pp. \$20.

Membranes and Membrane Processes. E. Drioli and M. Nakagaki, Eds. Plenum, New York, 1986. xii,

663 pp., illus. \$95. From a congress, Stresa, Italy, June 1984.

Metal Clusters. Martin Moskovits, Ed. Wiley-Interscience, New York, 1986. xii, 313 pp., illus. \$49.95.

Microbial Communities in Soil. V. Jensen, A. Kjoller, and L. H. Sørensen, Eds. Elsevier, New York, 1986. xiv, 447 pp., illus. \$66. From a symposium, Copenhagen, August 1985.

Microbial Energy Transduction. Genetics, Structure, and Function of Membrane Proteins. Douglas C. Youvan and Fevzi Daldal, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 1986. x, 181 pp., illus. Paper, \$27. Current Communications in Molecular Biology. From a conference, Cold Spring Harbor, NY, Feb. 1986.

Middle East Oil Crises Since 1973. Benjamin Shwadrin. Westview, Boulder, CO, 1986. xvi, 254 pp., illus. \$35.

Mineral Nitrogen in the Plant-Soil System. R. J. Haynes *et al.* Academic Press, Orlando, FL, 1986. xii, 483 pp., illus. \$62.50. Physiological Ecology.

Red Fox. The Catlike Canine. J. David Henry. Smithsonian Institution Press, Washington, DC, 1986. 176 pp., illus. \$22.50. A Smithsonian Nature Book.

Reflections of a Physicist. Anatole Abragam. Clarendon (Oxford University Press), New York, 1986. 159 pp. \$22.95. Translated from the French edition (Paris, 1983).

Regulation of Gene Expression. 25 Years On. I. R. Booth and C. F. Higgins, Eds. Cambridge University Press, New York, 1986. x, 309 pp., illus. \$59.50. Symposium of the Society for General Microbiology, 39th (Warwick, U.K., April 1986).

Relaxation in Glass and Composites. George W. Scherer. Wiley-Interscience, New York, 1986. xiv, 331 pp., illus. \$54.95.

Renewable-Resource Materials. New Polymer Sources. Charles E. Carraher, Jr. and L. H. Sperling, Eds. Plenum, New York, 1986. x, 332 pp., illus. \$59.50. Polymer Science and Technology, vol. 33. From a symposium, Miami Beach, FL, April 1985.

Respiratory Physiology. Allan H. Mines. 2nd ed. Raven, New York, 1986. viii, 168 pp., illus. Paper, \$19.50. Raven Press Series in Physiology.

Risk Management and Political Culture. A Comparative Study of Science in the Policy Context. Sheila Jasanoff. Russell Sage Foundation, New York, 1986 (distributor, Basic Books, New York). x, 93 pp. Paper, \$5.95. Social Research Perspectives, 12.

Robot Analysis and Control. H. Asada and J.-J. E. Slotine. Wiley-Interscience, New York, 1986. xiv, 266 pp., illus. \$33.95.

Science in the Federal Government. A History of Policies and Activities. A. Hunter Dupree. Johns Hopkins University Press, Baltimore, 1986. xxiv, 460 pp. Paper, \$14.95. Augmented reprint, 1957 edition.

Science of Ceramic Chemical Processing. Larry L. Hench and Donald R. Ulrich, Eds. Wiley-Interscience, New York, 1986. xxiv, 594 pp., illus. \$59.95. From a conference, Palm Coast, FL, Feb. 1985.

The Science Question in Feminism. Sandra Harding. Cornell University Press, Ithaca, 1986. 271 pp. \$35; paper, \$9.95.

Scientific and Engineering Applications with Personal Computers. A Software Approach with Examples for the Apple, IBM-PC, and CPM-Based Microcomputer Systems. Raymond Annino and Richard D. Driver. Wiley-Interscience, New York, 1986. xxii, 577 pp., illus. \$45.

Scientific Programming with Macintosh Pascal. Richard E. Crandall and Marianne M. Colgrove. Wiley Press, New York, 1986. viii, 279 pp., illus. Paper, \$18.95.

The Search for Extraterrestrial Intelligence. K. I. Kellerman and G. A. Sciellstad, Eds. National Radio Astronomy Observatory, Green Bank, WV, 1986. viii, 271 pp., illus. Paper, \$10. NRAO Workshop no. 11. From a workshop, Green Bank, WV, May 1985.

Selforganization. Proceedings of the Liberty Fund Conference on Selforganization. (Key Biscayne, FL, 1984.) Sidney W. Fox, Ed. Adenine, Guilderland, NY, 1986. x, 203 pp., illus. \$55; paper, \$22.50.

Testing Statistical Hypotheses. E. L. Lehmann. 2nd ed. Wiley, New York, 1986. xx, 600 pp., illus. \$45.95. Wiley Series in Probability and Mathematical Statistics.

Wave Propagation and Scattering. B. J. Uscinski, Ed. Clarendon (Oxford University Press), New York, 1986. x, 381 pp., illus. \$59. The Institute of Mathematics and its Applications Conference Series, 5. Based on a conference, Cambridge, UK, April 1984.

Wildlife Conservation Evaluation. Michael B. Usher, Ed. Chapman and Hall (Methuen), New York, 1986. xii, 394 pp., illus. \$69.95; paper, \$27.50.

Products & Materials

Colloidal Gold Probes

Auroprobe streptavidin-colloidal gold probes are for visualizing biotinylated antibodies, nucleic acids, hormones, lectins, toxins, and complement factors. Colloidal gold as a marker is stable, sensitive, and easy to use. It does not use carcinogenic substrates nor does it present a radiation hazard. Auroprobe probes are available for use in electron microscopy, light microscopy, and blotting applications. The gold signal may be augmented with an optional silver enhancement kit. Janssen Life Sciences Products. Circle 610.

Statistical Software

STATA is an interactive software package for data analysis. Equipped with both a sophisticated command syntax and a complete menu system, STATA allows the user to choose how to interact with it. Data may be entered from the keyboard or from ASCII files; an optional transfer package allows data from other programs to be converted. Features include descriptive statistics, correlations and covariances, and cross-tabulation. Linear regression options include ordinary least squares, two-stage least squares, weighted least squares, and instrumental variables. STATA can create 1, 2, and n -way tables of frequencies and row, column, and cell percentages. Data may be sorted on an unlimited number of variables. A variant of STATA, called STATA/Graphics, generates scatterplot matrices, graphic overlays, pie charts, bar charts, and three-dimensional plots. To operate, STATA requires an IBM PC or compatible with a minimum of one double-sided disk drive, 256 kilobytes of random access memory, and MS-DOS 2.0 or higher. Computing Resource Center. Circle 612.

DNA Sequencing Apparatus

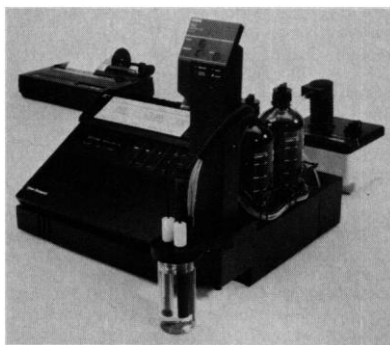
The 100-cm DNA Sequencer provides high resolution with both high and low speeds of separation. An aluminum platen

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.

evenly distributes the heat within the gel, resulting in a sequence pattern in which all bands, even those at the bottom of the gel, are clearly readable. The separating gel is 95 cm long, allowing over 200 nucleotides to be read at a single loading and many more than 200 with multiple loadings. Higher voltages may be applied for quick sequencing or lower voltages for overnight sequencing. Haake Buchler Instruments. Circle 525.

Expandable Analyzer

The EA 940 is a programmable pH-ion selective electrode (ISE) meter with dual channel electrode inputs, pH Autocal, automatic recognition of anion and cation ISE's, and user-selected readout speed and accuracy. The EA 940 can measure ions for which electrode and direct calibration procedures do not exist through single and double



incremental addition and subtraction. The operator performs most functions by means of three keys on the meter: "yes," "no," and "?". The meter's display prompts the user through calibration and measurement procedures. The analyzer is also expandable; an optional autochemistry module may be added to create a system capable of a wide variety of analytical techniques. Orion Research. Circle 527.

Automatic Peptide Synthesizer

The Biolynx 4170 peptide synthesizer operates with fluorenylmethyloxycarbonyl (Fmoc) amino acid active ester chemistry. Up to three continuous flow reaction columns packed with a polyamide resin may be used to speed production and increase yields of pure peptide analogs. Peptide degradation and health dangers are minimized because highly corrosive hydrogen fluoride is not needed and because the reagents of Fmoc polyamide chemistry are mild. The Biolynx 4170 is controlled by menu-driven software on an AT&T 6300 personal com-

puter. Up to 20 automatic synthesis cycles may be performed, and protocols may be stored, recalled, edited, and printed. The user may monitor the addition of each amino acid in real time. LKB Instruments. Circle 529.

Technical Word Processing Software

Manuscript is a word and document processing package for scientists that can integrate spread sheets, graphs, and databases from 1-2-3, Symphony, and Freelance. The user may mix text and graphics—including graphs, charts, tables, diagrams, and equations—on the same page. Documents may be up to 800 pages long. In addition to common capabilities such as cut and paste, copy, search and replace, and form letter generation, Manuscript also has a built-in outliner, global indexing and footnoting, a spelling checker, a document comparison feature that highlights revisions, and a document preview capability that enables the user to see what the document will look like before printing. The program supports 35 printers from dot-matrix to laser and also supports the PostScript language. To operate, Manuscript requires an IBM PC or compatible, a hard disk, 512 kilobytes of memory, and MS-DOS 2.0 or higher. Lotus Development. Circle 528.

Literature

Split-Splitless Conversion Kits is a brochure describing kits that convert a 0.25-inch packed-column gas chromatograph to capillary column capability. J & W Scientific. Circle 613.

Labware Product News includes photographs and specifications of a line of labware alternatives to glass. Nalge. Circle 614.

Stable Isotope and Labeled Compounds Catalog lists synthesized isotopes, multiply labeled compounds, and reference standards. Icon Services. Circle 615.

Thin Film Products Catalog features interference filters, neutral density filters, metallic coatings, beam splitters, laser coatings, dichroic color filters and separators, color temperature converters, and conductive coatings. Balzers Optical. Circle 616.

Short Form Catalog describes over 100 products for hybrid and discrete data conversion. ILC Data Device. Circle 617.

Primary and Secondary Antibodies Catalog includes nearly 3000 antibodies, immuno-reagents, and kits. Accurate Chemical & Scientific. Circle 618.

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, 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): \$35.00 per line; \$350 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.

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 spaces, and all partial lines are counted as full lines. To calculate cost, multiply total lines × \$35.00 = total cost of ad.

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

Bacteriologist/Pharmacist—Two doctorate degrees in pharmacy (Middle East and Paris University). Two special certificates in bacteriology and parasitology (Paris). Fifteen years experience teaching, research, clinical work in bacteriology, School of Medicine Middle East. Job desired: bacteriological or pharmaceutical work; research, clinical, industrial, so forth. Box 221, SCIENCE. 1/2, 9

Biochemist, M.S., formal equivalent Ph.D., seeks challenging position in research. Broad background in molecular biology, protein purification, tissue culture. Prefer Pacific Northwest; willing to relocate. Box 231, SCIENCE. X

Biologist/Computer Engineer, Ph.D. Experienced in lab automation, instrumentation, molecular biology and bioassay. Seeks R & D or academic position in San Diego area. Box 229, SCIENCE. X

Biologist, Ph.D. Academic training in genetics and statistics. Experience in cell biology, molecular biology, and computers seeks industrial position, south or west. Box 227, SCIENCE. X

Drug Metabolism/Disposition. Ph.D. with 2 years of postdoctoral experience seeks position in the pharmaceutical industry. Strong background in medicinal chemistry, pharmacology, and toxicology. Extensive experience in analytical development. Box 225, SCIENCE. 1/2, 9, 16, 23

POSITIONS WANTED

Biotechnology Researcher, M.S. with industrial experience desires challenging laboratory position. Laboratory experiences include molecular biology, recombinant DNA, fermentation scale-up, microbial strain and process development, and utilization of radioisotopes. Separations techniques include: LC, HPLC, agarose/polyacrylamide electrophoresis, ultrafiltration, and supercritical fluid extraction. Box 234, SCIENCE. 1/2, 9, 16, 23, 30

M.D. Board-certified in internal medicine, clinician for 7 years, desires to get into research in immunology. Strong interest in oncology. Skilled in computer programming. Box 232, SCIENCE. X

Materials Scientist/Ceramic Engineer, M.Sc. Exp. composites, metal-ceramics, investment casting (ds and sc crystallization), refractories and materials characterization. Box 224, SCIENCE. 1/2, 9

Molecular Geneticist (Ph.D. 1984). Background in Fisheries and Agriculture. Proficient in practical applications of isozyme and Southern blot screening techniques. Some cloning experience. Interested in geneticist position in academic or research institute environment, USA or abroad. Box 226, SCIENCE. X

Physiologist/Biophysicist/Immunologist, Ph.D. 1967. Cardiovascular/GI physiology, circulation. Shock pathophysiology, therapy. Infection and endotoxemia. Heat stroke and sports medicine. Immunochimistry. Protein modification, immobilization. Muscle contraction. Leader of successful Anti-LPS antibody group. Currently senior academic position physiology/biochemistry. Seeking senior vet, medical or biology position. Box 228, SCIENCE. X

Product Development: Ph.D. scientist, broad medical and industry contacts, 15 years "hands-on" expertise including product development successes (implants, blood contact and orthopedic devices), quality management, regulatory submissions, patents, sales. Seeks challenging position bringing products from conception through manufacturing. Box 223, SCIENCE. 1/2, 9

Technical Writer, Ph.D. Twenty years of experience in research and writing for scientific, technical, and popular markets. Credits include fifteen books in three languages and articles in varied scientific and academic journals. Seeks freelance projects of all kinds, including manuals, software documentation, grants and proposals, library research, manuscript critiques and editing, ghostwriting, lectures, and speeches. Box 214, SCIENCE. X

Toxicologist/Teratologist, Ph.D. Background in reproductive toxicology, teratology, general toxicology and reproductive physiology. Diverse experience, 8 years in contract research. Conversant with FDA, EPA, GLP, TSCA, FIFRA, and FHSA regulations. Seeks position in industry, government, or academia. Box 230, SCIENCE. X

Work wanted. Experienced writer, teacher and researcher will write or edit materials in all life science areas. Scientific accuracy guaranteed; educational materials a specialty. Dr. Catherine Reed, 516 Marsh Street, Mankato, MN 56001; telephone: 507-388-1257. X

POSITIONS OPEN

ANIMAL BEHAVIOR AND LEARNING

The Department of Psychology at the University of California, Los Angeles (UCLA) invites applications for a tenure-track assistant professorship in learning, comparative psychology, or evolutionary psychobiology. The primary criterion for appointment will be high quality behavioral research in one or more of these areas. Besides conducting research, the successful candidate will teach at the undergraduate and graduate levels. Applicants should submit curriculum vitae, statement of research interests, copies of publications, and have three letters of reference sent to: Dr. Arthur P. Arnold, Department of Psychology, UCLA, 405 Hilgard Avenue, Los Angeles, CA 90024. Deadline for applications is 20 February 1987. UCLA is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ACADEMIC CARDIOLOGIST (ECHOCARDIOGRAPHER)

The Cardiovascular Division, Beth Israel Hospital, invites applications for a FULL-TIME FACULTY position at Harvard Medical School, starting on or before 1 July 1987. The appointment will be at the instructor, assistant professor or associate professor level, depending upon the experience of the appointee. Candidates should be board eligible or board certified in cardiovascular disease and should have extensive experience and expertise in M-mode, two-dimensional and Doppler echocardiography. Research experience is required. Of particular interest would be a publication record demonstrating physiologic applications of echocardiographic techniques or an interest and expertise in data processing. Candidates should be interested both in development of independent research projects and in collaboration with multiple other division members in a broad array of research endeavors. The appointee will also have the opportunity to teach, to see outpatients, and to visit on one or more of the inpatient cardiology services. Send curriculum vitae to: William Grossman, Chief, Cardiovascular Division, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215. Harvard University is an Equal Opportunity/Affirmative Action Employer.

ANATOMIST

The Department of Anatomy seeks an individual to teach growth anatomy to medical, dental, and graduate students. Candidates should have 3 years of postdoctoral experience and have an active research program. An appointment can be made at the level of either assistant or associate professor. At the earliest the position could commence on 1 July 1987. Send applications, with an account of research interests, and the names of three referees, by 16 February 1987 to: Dr. Alan Peters, Chairman, Department of Anatomy, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118. An Equal Opportunity Employer.

University of California, Riverside/University of California, Los Angeles

ANATOMY STAFF RESEARCH ASSOCIATE. The (UCR)/(UCLA) Division of Biomedical Sciences, an innovative program in medical education that allows highly qualified students to earn the B.S. and M.D. degrees in 7 years, has an opening for a nonfaculty, staff associate to assist in laboratory teaching of gross anatomy, histology, and neuroanatomy to first-year medical students. Duties also include laboratory set-up and maintenance. Those with prior experience in medical/graduate anatomy courses will have the opportunity to further develop their professional skills working with academic faculty. Individuals with practical light and electron microscopic expertise are encouraged to apply. All duties will be performed on the Riverside campus of the University of California, located equidistant between Los Angeles/Orange County and Palm Springs. \$21,732 to \$30,876. Potential benefits include retirement plan and employer paid health, dental and life insurance. Apply to: Ms. R. Loudon, Division of Biomedical Sciences, University of California, Riverside, CA 92521.

ANATOMY FACULTY POSITION

The Department of Veterinary Anatomy at Texas A&M University has a fully-funded tenure-track faculty position available beginning in May 1987. Applicants must have a Ph.D. or equivalent degree and postdoctoral experience. Responsibilities include teaching histology and cytology to professional and graduate students, and administration of the College's EM Laboratory. Opportunities for new course development are available. A background in ultrastructure, experience in the technical aspects of microscopy and cell science, and demonstrated potential for development of a productive research program are essential. Rank and salary will be commensurate with experience. Applications (to include a current curriculum vitae and reprints, an outline of research goals, and names of three references) should be sent, not later than 15 March 1987, to: Dr. Gerald R. Bratton, Professor and Head, Department of Veterinary Anatomy, Texas A&M University, College Station, Texas 77843-4458. Texas A&M University is an Equal Opportunity Employer through Affirmative Action.

POSITIONS OPEN

ANIMAL DEVELOPMENT/CELL BIOLOGIST

Tenure-track, assistant or associate professor, starting September 1987. Requirements: completed Ph.D., postdoctoral and teaching experience, and active research program with undergraduate students. Appointee will teach advanced undergraduate courses in cell biology and animal development (both with labs) and an introductory core course. Send résumé, official transcripts, three references, and outline of research to: **Dr. Linda Caren, Biology, Santa Clara University, Santa Clara, CA 95053** by 28 February 1987. *Santa Clara University, a Jesuit institution, is an Equal Opportunity/Affirmative Action Employer, Title IX M/F/H.*

AQUATIC ECOLOGISTS. The Illinois Natural History Survey (INHS) invites Ph.D.-level scientists having a strong background in quantitative methods and experience in aquatic ecosystems to apply for two positions in the Aquatic Biology Section. The positions are full-time, state-supported research positions; at least one will be filled by an applicant with expertise in lotic ecology. Successful candidates will be expected to develop innovative research programs and attract extramural grant funding. They may choose to be located at the INHS headquarters on the University of Illinois campus, Champaign, or at the INHS River Research Laboratory in Havana, IL. Rank and salary are negotiable. Send curriculum vitae, a statement of future research interests, and the names, addresses and telephone numbers of at least three references to: **Dr. Phil Ross, Aquatic Biology Section, Illinois Natural History Survey, 607 East Peabody Drive, Champaign, IL 61820; telephone: 217-333-6897.** Applications will be accepted until 15 February 1987, or until these positions are filled. *The State of Illinois is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT FELLOW/ASSISTANT PROFESSOR—THE INSTITUTE OF BIOLOGICAL CHEMISTRY, WASHINGTON STATE UNIVERSITY, PULLMAN, is accepting applications for a permanent, tenure-track faculty position. A scientist with a Ph.D. in biochemistry, biology or a related discipline, with at least 2 years of postdoctoral research experience or equivalent, an outstanding record of accomplishment, and exceptional research potential in an area of plant biochemistry or plant molecular biology is being sought. This faculty member will be expected to lead a vigorous and innovative research program and to participate in graduate education. The Institute provides an excellent environment and support for research. Send nominations or applications, including curriculum vitae, a short description of accomplishments, a statement of research interests and goals, and a list of three or more references, to: **Dr. Rodney Croteau, Director, Institute of Biological Chemistry, Washington State University, Pullman, WA 99164-6340** by 15 February 1987. *Washington State University is an Equal Opportunity/Affirmative Action Employer.*

THE DEPARTMENT OF BIOCHEMISTRY, DUKE UNIVERSITY MEDICAL CENTER invites applications for the position of **Assistant Professor** (tenure-track). The person will be expected to establish a strong independent research program and to teach both medical and graduate students. The field of interest is open, although some preference may be given to candidates interested in structural biochemistry or molecular aspects of cell biology. Send résumé, summary of research interest and three letters of reference to: **Robert L. Hill, Duke University Medical Center, Durham, NC 27710.** *Duke University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR

Assistant Professor in immunology for research and teaching relating to mechanisms of lymphocyte activation in health and disease. M.D. and/or Ph.D. and relevant postdoctoral training in immunology and biochemistry required, plus in-depth understanding of clinical immunology, protein kinases, calcium flux and phosphatidylinositol turnover. Contact: **Sandra Petit, Business Manager, Department of Basic and Clinical Immunology and Microbiology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425-2230.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

A tenure-track position is available at the assistant professor level August 1987 in the **Department of Biological Sciences of the University of Idaho.** The successful candidate must have postdoctoral experience, must be able to develop an independent research program in molecular, cellular, or physiological plant biology, and must be able to attract extramural support. Teaching responsibilities will include an annual one-semester undergraduate course in plant biology and a semester graduate course in alternate years. Applicants should submit curriculum vitae, statement of research accomplishments, interests and goals, transcripts of academic records, reprints, and the names of three references by 30 January 1987 to: **Dr. A. W. Rourke, Department of Biological Sciences, University of Idaho, Moscow, ID 83843.** *The University of Idaho is an Equal Opportunity/Affirmative Action Employer and all women and members of minority groups are encouraged to apply.*

ASSISTANT PROFESSOR—The Department of Obstetrics and Gynecology at Indiana University has an opening for a research faculty position (tenure) in Gynecologic Oncology. The applicant will be expected to conduct independent research and develop research interests related to gynecologic oncology utilizing an existing tissue culture facility. Position includes laboratory space, technician, and start-up funds. Send curriculum vitae and research interests to: **Gregory P. Sutton, M.D., Department of Obstetrics-Gynecology, Indiana University School of Medicine, Indianapolis, IN 46223.**

ASSISTANT PROFESSOR: The Department of Neurology, Medical College of Virginia (MCV), Virginia Commonwealth University, invites applications for a non-tenure-track faculty position in molecular neurobiology research. Applicants with at least 2 years of postdoctoral experience, Ph.D. or M.D. degree, and a thorough background in patch and voltage clamp technology and neurophysiology are desired. Send curriculum vitae to: **Dr. R. DeLorenzo, Chairman-Neurology, Box 599 MCV Station, Richmond, VA 23298.** *Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

ASSISTANT PROFESSOR: Tenure-track position for vegetable entomologist with expertise in systems science at The Ohio State University, OARDC Campus, Wooster. Applications will be reviewed 15 February 1987 and thereafter until position is filled. Position requires providing expertise in systems analysis and collaborative research program in population dynamics and ecological modeling, management of insect pests of vegetable crops, and development and teaching graduate course in area of expertise. Send letter of application, résumé, and names of five references to: **Robert E. Treece, Department of Entomology, OARDC-OSU, Wooster, OH 44691.**

ASSISTANT PROFESSOR. Tenure-track position in vertebrate morphology starting fall, 1987. Duties include teaching comparative vertebrate morphology each semester during the first year and developing an active research program in one of the following areas: wildlife toxicology, cellular toxicology, organ system physiology, or biometry. During subsequent years, the person would also be expected to develop a course in his/her area of expertise. Send statement of teaching and research interests, résumé, transcripts, and names of three references to: **Dr. S. L. Burks, Department of Zoology, Oklahoma State University, Stillwater, OK 74078** before 1 February 1987. *OSU is an Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF SASKATCHEWAN ASSISTANT PROFESSOR

Applications are invited for a tenure-stream position at the assistant professor level in the area of vertebrate zoology.

Candidates should have a minimum of a Ph.D. degree and a strong research background. Preference may be given to candidates with specialization in wildlife or fisheries population biology.

The post will take effect on 1 July 1987. Send curriculum vitae and the names, addresses and telephone numbers of at least three referees to: **Dr. John King, Department of Biology, University of Saskatchewan, Saskatoon, Saskatchewan S7N 0W0, Canada.**

The closing date is 28 February 1987, or thereafter until the position is filled.

POSITIONS OPEN

ASSISTANT PROFESSOR

The Department of Biochemistry and Biophysics of the University of Pennsylvania invites applications for the position of tenure-track assistant professor in the biophysics area. Applicants should have a strong theoretical and experimental background, a record of accomplishment in forefront biophysical problems, and expertise in modern spectroscopic approaches with emphasis on nuclear magnetic resonance methods. Candidates should forward curriculum vitae, a summary of research experience and interests, and arrange for three or more letters of reference to be sent to: **Ruth Keris, Staff Assistant to the Search Committee, Department of Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, PA 19104-6059.** Deadline for applications is 6 February 1987. *The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR IN BIOCHEMISTRY

Applications are invited for a **tenure-track assistant professor** position available immediately. The applicant must have a Ph.D., strong research program and some experience in teaching. While productive candidates in all areas of biochemistry will be considered, some preference will be given to the field of molecular biology. Send curriculum vitae, two reprints and three references to: **Dr. P. Ganguly, Chairman, Department of Biochemistry and Nutrition, University of Puerto Rico Medical School, G.P.O. Box 5067, San Juan, PR 00936-5067.** *An Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF CHEMISTRY. The Department of Chemistry of the University of Pennsylvania is searching for an assistant professor (tenure-track) with research interests in the broad area of biological chemistry, emphasizing the relationships between structure, function, and mechanisms. Applications, including curriculum vitae, list of publications, short description of planned research, and three letters of recommendation, should be sent by 15 February 1987 to: **Biological Chemistry Search Committee, Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104.** *The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR in the Department of Clinical Nutrition, School of Allied Health Science, and the Center for Human Nutrition, Southwestern Medical School.

Applicants must have an M.D. with a minimum 3-year fellowship which includes nutrition research and clinical investigation in diabetes and lipid metabolism. Responsibilities will include research, clinical teaching, classroom and laboratory, of nutrition and dietetics, and patient care. Salary negotiable. Please address inquiries and curriculum vitae to: **Dr. Scott M. Grundy, University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235.**

The University of Texas Health Science Center is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR EVOLUTIONARY BIOLOGY

The Department of Zoology of the University of Wisconsin-Madison invites applications for a tenure-track position at the rank of assistant professor. Candidates should have research interests centered on evolutionary mechanisms and hypotheses at the population, organismal, or molecular level or a combination of these. Possible areas of specialization might include but are not limited to: (i) functional or developmental morphology, (ii) vertebrate macroevolution, (iii) modes of speciation, or (iv) evolutionary genetics. Emphasis will be placed on hiring an outstanding individual rather than on selecting the specific research specialization. Responsibilities will include teaching at both the graduate and undergraduate levels, supervision of graduate students and development of an independent research program. Applicants should submit a curriculum vitae, statement of research interests and the names of three references by 2 February 1987 to: **Seymour Abrahamson, Chairman, Department of Zoology, University of Wisconsin, Madison, WI 53706.**

The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer; applications from minority and women candidates, handicapped individuals and other qualified persons are encouraged.

POSITIONS OPEN

ASSISTANT PROFESSOR, Microbiologist. The Southeastern College of Osteopathic Medicine (SECOM) invites applications for a faculty position in Microbiology. The successful candidate will be expected to help teach courses in medical microbiology, supervise microbiology teaching laboratories, and pursue individual research interests. Please submit a letter of application, and the names of three (3) references to: **Harold E. Laubach, Ph.D., Assistant Dean for Basic Sciences, Southeastern College of Osteopathic Medicine, 1750 NE 168th Street, North Miami Beach, FL 33162.** SECOM is an Affirmative Action/Equal Opportunity Institution.

The Department of Microbiology invites applications for a **TENURE-TRACK POSITION AT THE ASSISTANT PROFESSOR LEVEL.** The successful candidate will have a Ph.D. degree with 2 or 3 years postdoctoral training in microbial biotechnology, applied microbiology, or microbial physiology. Evidence of successful participation in a research program is expected.

Subject to budgetary approval the appointment will be effective 1 July 1987 and the salary will be based on qualifications.

The individual will be expected to develop a strong funded research program in her/his specialty including the direction of graduate students. Participation in the teaching of undergraduate courses will be expected.

Applicants are requested to arrange to have a curriculum vitae, three letters of reference, recent reprints and a brief description of present and prospective research forwarded by 15 February 1987 to: **Dr. P. Loewen, Chairman, Search Committee, Department of Microbiology, University of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2.**

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

ASSISTANT PROFESSOR MICROBIOLOGY AND IMMUNOLOGY UNIVERSITY OF COLORADO MEDICAL SCHOOL

Applications are invited for a 12-month tenure-track position in the Department of Microbiology and Immunology at the University of Colorado Medical School. The Department is seeking an outstanding individual who will use the techniques of molecular biology to initiate a vigorous and innovative research program in the areas of eukaryotic molecular biology, virology, or immunology. The successful candidate will be expected to interact productively with other molecular biologists at the Medical School and to help teach medical students and graduate students. Send curriculum vitae, future research plans, and the names of three references to: **Dr. Walden Roberts, Search Committee Chairman, Department of Microbiology and Immunology, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, CO 80262.** The University of Colorado is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR PLANT MOLECULAR BIOLOGIST

The Oklahoma Agricultural Experiment Station is seeking a molecular biologist to join an active research faculty in plant biotechnology. Candidates should have postdoctoral experience and demonstrated potential to establish a competitive research program in plant molecular biology that will complement existing programs in agricultural biotechnology. We are particularly interested in candidates with expertise in plant transformation systems, transposable elements, protein engineering, molecular genetics, or the regulation of gene expression. Salary and department of residence for the 12-month tenure-track position will be determined by research interests and qualifications. Start-up funds and technical support are available. Letters of application, curriculum vitae and statement of research interests should be sent to: **Dr. R. R. Johnson, Associate Director, Oklahoma Agricultural Experiment Station, 139 Ag Hall, Oklahoma State University (OSU), Stillwater, OK 74078.** To ensure full consideration, applications should be received no later than 27 February 1987. OSU is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

DEPARTMENT OF BIOLOGICAL SCIENCES FORDHAM UNIVERSITY ASSISTANT PROFESSORSHIPS

We invite applications for two tenure-track positions in cell biology/molecular biology at the assistant professor level beginning 1 September 1987. Qualifications include a Ph.D. and at least 2 years of postdoctoral experience. One of these appointments will be for an individual with a research program in the regulation of eukaryotic gene expression. The other in any of the following areas: cytoskeleton, signal transduction or growth factors. The successful candidates are expected to continue a vigorous research effort and to seek extramural funding. In addition they are expected to participate in the undergraduate and graduate teaching of the department. Curriculum vitae, supporting materials and names of three referees should be sent to: **Dr. Sergio Abreu, Chairman, Department of Biological Sciences, Fordham University, Bronx, New York 10458.** The deadline for receipt of applications is 31 January 1987. Fordham University is an Equal Opportunity/Affirmative Action Employer.

Brown University seeks an assistant professor of psychology with specialization in behavioral neuroscience/physiological psychology. We are particularly interested in candidates whose research combines behavioral and physiological methods. This is a tenure-track appointment that begins on 1 January 1988 for an initial term of 3 years. Responsibilities include teaching at the undergraduate and graduate levels, directing research, and developing a strong basic research program. Applications should include curriculum vitae, reprints and preprints of scholarly publications, and at least three letters of recommendation. Submit all applications by 23 January 1987 (application date has been extended) to: **The Search Committee, c/o Dr. James A. Simmons, Walter S. Hunter Laboratory of Psychology, Box 1853, Brown University, Providence, RI 02912.** Brown University is an Equal Opportunity/Affirmative Action Employer. Applications from minority persons and women are encouraged.

ASSISTANT/ASSOCIATE PROFESSOR, TENURE-TRACK, Ph.D. in hematology or microbiology or related area (two positions). Department of Health Sciences seeks faculty with clinical/research interests for expanding undergraduate/graduate curriculum in clinical laboratory sciences. Preference will be given to applicants with extensive clinical laboratory experience and/or certification. Letter of application/curriculum vitae must be received by 1 March 1987. Submit applications to: **Chairperson, Search and Screen, Medical Technology Program, Department of Health Sciences, University of Wisconsin-Milwaukee (UWM), P.O. Box 413, Milwaukee, WI 53201; telephone: 414-963-5324.** UWM is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR OF PHYSIOLOGY. Applications are invited for **tenure-track assistant professor positions.** Candidates with training in cellular physiology or biophysics are encouraged to apply; however, outstanding candidates in other areas of physiology will definitely be considered. Applicants should submit curriculum vitae, description of future research program, and have three letters of reference sent to: **Dr. James T. Stull, Chairman, Department of Physiology, The University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9040.** An Affirmative Action/Equal Opportunity Employer.

The Ohio State University is seeking applications for a tenure-track position in veterinary clinical pharmacology at the assistant or associate professor level. D.V.M. and/or Ph.D. required. Training, experience, and interest in basic and clinical veterinary pharmacology preferred. Responsibilities include teaching, research, clinical service, developing independent research programs. Salary commensurate with experience. Submit curriculum vitae, letter of intent, names and addresses of three references by 20 February 1987 to: **Dr. Y. C. Lin, Chairman, Veterinary Physiology and Pharmacology, The Ohio State University, 1900 Coffey Road, Columbus, OH 43210.** OSU is an equal opportunity, affirmative action employer.

POSITIONS OPEN

ASSISTANT PROFESSOR OR ASSOCIATE PROFESSOR OF MICROBIOLOGY AND IMMUNOLOGY, UNIVERSITY OF ILLINOIS, COLLEGE OF MEDICINE

The Department of Microbiology and Immunology, as part of a process of growth and increase in activity, is seeking to fill a position at the level of assistant professor (tenure-track: associate professor candidates will also be considered) in eukaryotic molecular biology, with an emphasis in virology. Each individual will be expected to develop a strong independent research program with external funding. Adequate space and start-up funds are available. Participation in teaching and graduate student training is expected.

Applicants should provide the search committee with curriculum vitae, at least three letters of recommendation and a brief statement of future research interests and plans. The first series of candidates will be considered after 22 December 1986 and applications will be accepted until the position is filled. Starting date can be September 1987 or thereafter.

Send applications to: **K. N. Subramanian, K. L. Knight and R. Kucheralapati, Eukaryotic Molecular Biology Search Committee, Department of Microbiology and Immunology, University of Illinois College of Medicine at Chicago, P.O. Box 6998, Chicago, IL 60680.**

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

ASSISTANT PROFESSOR, IMMUNOLOGIST. The Pennsylvania College of Podiatric Medicine invites applications for a full-time faculty position in the Department of Microbiology and Immunology. The successful candidate will teach immunology to medical students, instruct in the medical microbiology laboratory and participate in research on diabetes, collagen diseases or aging. Ph.D. and several years of related postdoctoral experience required. Please submit a letter of application, curriculum vitae, research interest and experience and the names of three references to:

**David A. Axler, Ph.D.
Department of Microbiology and Immunology
Pennsylvania College of Podiatric Medicine
Eighth and Race Streets
Philadelphia, PA 19107**

An Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR, Plant Population Biology. The Departments of Botany and of Systematics and Ecology invite applications for a tenure-track position. We seek a botanist with a strong research program in population biology who will establish an active graduate education program and teach courses on population biology and/or genetics. Ph.D., graduate training in plant population biology required. Salary range \$24,000 to \$29,000. Submit curriculum vitae; copies of recent publications, grant proposals, and/or manuscripts; statement of research goals and current research activities; description of teaching philosophy and experience, list of courses you could teach; and have at least three letters of reference sent to: **Dr. William Bloom, Chairperson, Plant Population Biologist Search Committee, Division of Biological Sciences, University of Kansas, Lawrence, KS 66045** before 1 February 1987. The University of Kansas is an Equal Opportunity/Affirmative Action Employer.

Assistant Professor of Science Writing. The Massachusetts Institute of Technology (MIT) Writing Program hopes to fill a position in science writing at the rank of assistant professor beginning September 1987. Candidates should be outstanding science writers with growing national reputations. Experience in teaching, but not necessarily the teaching of writing, is desirable. Salary depends on qualifications and experience. Please send letter of application and curriculum vitae by 15 February 1987 to: **Professor Kenneth R. Manning, The Writing Program, 14E-310, Massachusetts Institute of Technology, Cambridge, MA 02139.** MIT is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR UROLOGY EASTERN VIRGINIA MEDICAL SCHOOL

The Department of Urology at the Eastern Virginia Medical School is inviting applications for a tenure-track position as assistant professor. Candidates should be qualified to participate in an intensive program of basic and clinical neurobiology related to the anatomical and physiological correlates of reinnervation of bladder function. Additional background and training that relates to the biochemical neuroanatomy of peptidergic and cholinergic influences in the autonomic nervous system in central and peripheral parameters of bladder reinnervation following rhizotomy would be useful. An M.D. and/or Ph.D. and minimum of 2 years of postdoctoral or residency research in urology or neurobiology are required. The successful candidate will have an opportunity to build strong collaborative ties with new emergent programs of neurobiology in the Department of Anatomy and Physiology here at the Eastern Virginia Medical School. Send curriculum vitae, a statement of research plans and objectives, and three letters of reference to:

Dr. Charles Devine, Chairman
Department of Urology
Eastern Virginia Medical School
700 Olney Avenue
P.O. Box 1980
Norfolk, VA 23501

ASSISTANT RESEARCH PROFESSOR

Conduct research into regulation of the processes of bone turnover. The employee will be expected to conduct an independent program of research into the role of the osteoblast in bone matrix formation and degradation. This will involve an analysis of the effects of a variety of bone-seeking agents and factors on the functions of the osteoblast. The employee will be required to examine these functions via enzymic activity, protein synthesis and levels of messenger RNA. The employee will also be required to write proposals and manuscripts as well as supervise and teach students and postdoctoral fellows. Forty hours per week. \$35,000 per year. Applicants must have either a Ph.D. in biochemistry, or M.D., and have at least 3 years of postdoctoral experience in the area of calcium metabolism which has included hands-on experience in protein biochemistry and molecular biology. In particular, applicants must be experienced at tissue culture, gel electrophoresis (for both proteins and nucleic acids), use of radioisotopes, enzyme assays, and RNA isolation, as well as being familiar with the spectrum of techniques required for molecular biology. In addition, applicants should provide evidence of at least three publications in the area of calcium metabolism and have demonstrated that their work is of a sufficient caliber to have obtained two extramural grants. Send résumé to: Missouri Job Service, 505 Washington Avenue, St. Louis, MO 63101, Attention: K. Gooch. Refer to Job Order #029824.

ASSISTANT RESEARCHER, full-time, to begin on or after 1 March 1987. Continuation after 31 August 1987 dependent on satisfactory performance and availability of funds. To isolate, identify, and cultivate blue-green algae from freshwater, terrestrial, and marine environments for determination of the presence of anti-cancer agents. Applicants must have a Ph.D. in phycology or equivalent, with appropriate research experience. Submit letter of application, curriculum vitae, and names of three references to: **Dr. Gregory M. L. Patterson, Department of Chemistry, 2545 The Mall, University of Hawaii at Manoa, Honolulu, HI 96822. Telephone: 808-948-6031. Closing date: 13 February 1987. An Equal Opportunity Employer.**

ASSOCIATE PROFESSOR—EXPERIMENTAL ONCOLOGY/BIOCHEMISTRY. Teach course on biochemistry of cancer and present advanced seminars in **The Laboratory for Experimental Oncology.** Carry out research in cancer cells on contribution of de novo and salvage pathways in nucleic acid biosynthesis through enzymic and isotopic assays. Salary: \$35,000 per year, Ph.D. in biochemistry required. Must have documented achievement in purine and pyrimidine metabolism in human colon cancer and anti-cancer drug pharmacology in tissue culture and experimental chemotherapy. Response by 16 January 1987. Contact: **Dr. G. Weber, Laboratory for Experimental Oncology, Indiana University School of Medicine, 702 Barnhill Drive, Indianapolis, IN 46223. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSOCIATE DIRECTOR, Recombinant DNA Core Laboratory. Position available immediately for individual with 3 to 5 years of postdoctoral experience in cloning, sequencing and nucleic acid analytical methods to collaborate with a group of investigators studying various aspects of reproductive biology. This is an outstanding opportunity for interaction with a number of scientists in several departments of the UCLA School of Medicine. Some time and support to develop an independent research program can also be provided. Salary, benefits, and academic appointment will be suitable to training and experience. Send curriculum vitae with the names of three references to: **Larry J. Shapiro, M.D., Professor of Pediatrics and Biological Chemistry, UCLA School of Medicine, Division of Medical Genetics, 1000 West Carson Street, Torrance, California 90509.**

ASSOCIATE RESEARCH SCIENTISTS to study blood rheology in microcirculation by intravital microscopy in sickle cell disease and other blood disorders. Requirements: Ph.D. in bioengineering, pathology, or physiology. Related experience desirable. Send curriculum vitae and names of three references to: **Dr. Herbert H. Lipowsky, Department of Physiology and Cellular Biophysics, College of Physicians and Surgeons, Columbia University, 630 West 168 Street, New York, NY 10032.**

Columbia University is an Equal Opportunity Affirmative Action Employer.

AVIAN ECOLOGIST. The Appalachian Environmental Laboratory (AEL) of the University of Maryland's Center for Environmental and Estuarine Studies, announces a tenure-track faculty position in avian ecology. Applications are particularly welcomed from researchers with interests in anseriform, falconiform or galliform birds. The successful applicant will be required to generate extramural research funds from private, state, and federal sources; actively publish in peer reviewed journals and participate in graduate education. The rank of the appointment is open, depending on qualifications and experience. Salary is negotiable. Submit a letter of application, curriculum vitae, a statement of research interests, three significant publications, and names of three to five references to: **Dr. J. Edward Gates, Chairperson of Search Committee, Appalachian Environmental Laboratory, University of Maryland, Frostburg, MD 21532, by 15 March 1987.**

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

AVIAN HEALTH CHAIR

The Department of Veterinary Pathobiology, College of Veterinary Medicine, University of Minnesota invites applications and nominations for the recently established Benjamin S. Pomeroy Endowed Chair in Avian Health. The Chair was endowed by more than 100 donors from all segments of the avian industries. This is a position at the full or associate professor level. Minimum qualifications are a Ph.D. or D.V.M. (or equivalent foreign degree). At the full professor level the appointment will be with indefinite tenure. Minimum experience is at least 6 years with demonstrated national/international recognition in research and teaching. At the associate professor level the appointment will be either indefinite tenure or tenure-track. The minimum experience is 5 years with demonstrated effectiveness in research and teaching. Primary emphasis is on the development of a funded research program focused on avian health. Related teaching and advising of graduate students are expected. The position requires a person with leadership qualities who is familiar with health concerns of the poultry industry, and whose special interests and expertise will strengthen the current research efforts of the Avian Health Research program. Applicants should submit letter of application, curriculum vitae and names of five references by 15 March 1987 to: **Dr. Martin E. Bergeland, Chair, Avian Health Search Committee (G), College of Veterinary Medicine, University of Minnesota, 1943 Carter Avenue, St. Paul, MN 55108. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages Applications From Women and Minorities.**

POSITIONS OPEN

BIOCHEMICAL TOXICOLOGIST to study xenobiotic metabolism in aquatic organisms with emphasis on metabolic activation. This research is under a cooperative agreement with the U.S. Environmental Protection Agency (EPA) lab at Duluth, MN. Applicants should possess an M.S. (or B.S. with experience) in biochemistry, toxicology, pharmacology, or related field with experience in HPLC, TLC, and LSC techniques and in vitro methods. Salary \$16,000 to \$20,000. Position available February 1987. Send curriculum vitae, transcripts and two letters of reference by 19 January to: **Donald Bahnick, Center for Lake Superior Environmental Studies, University of Wisconsin-Superior, Superior, WI 54880. UW-Superior is an Affirmative Action/Equal Opportunity Employer.**

BIOCHEMIST—WILLIAMS COLLEGE has an anticipated opening for a tenure-track position in biochemistry for fall 1987 (Ph.D. required; postdoctoral experience preferred). Applicants should have a strong commitment to both teaching and research. Teaching assignments will encompass biochemistry courses and other courses in the chemistry curriculum consistent with the person's background and interests. A semester teaching load normally includes complete responsibility for one course with laboratory and supervision of senior research projects. Williams College is a highly selective, coeducational, liberal arts institution of approximately 160 faculty, 1950 undergraduates, and 25 to 35 chemistry majors each year, located in northwestern Massachusetts. The Chemistry Department is accredited by the ACS and has excellent facilities for teaching and research. Send résumé, undergraduate and graduate transcripts, description of research interests for undergraduates, and names of three references to: **Dr. James F. Skinner, Chairman, Department of Chemistry, Williams College, Williamstown, MA 01267, by 15 January 1987. Equal Opportunity/Affirmative Action Employer. We are especially interested in identifying minority and women candidates.**

BIOCHEMIST: Research in molecular pharmacology studying the effects of nucleoside analogues on DNA methylation using recombinant DNA techniques. Ph.D. Chemistry or Biochemistry plus 2 years of experience or 2 years of postdoctoral experience. Experience in nucleic acid technology, gene cloning, DNA synthesis and DNA sequencing required. Forty hours per week; \$22,127 per year. Job Order No. NY 8018676. D.O.T. Code 041061026. Applicants mail résumés to: **NYS Job Service JO#8018676, 175 Remsen Street, 2nd Floor, Brooklyn, NY 11201.**

BIOCHEMIST—Thriving American Chemical Society approved Chemistry Department with B.S. and M.S. degrees in chemistry has full-time, tenure-track position for a Ph.D. biochemist with a strong background in clinical chemistry. Postdoctoral and teaching experience is preferred. Candidate must have an enthusiastic commitment to teaching and research. Send résumé, transcripts, three letters of recommendation and detailed statement of teaching and research interests, postmarked by 15 February 1987, to: **Dr. Andrew Goudy, Chairman, Department of Chemistry, West Chester University, West Chester, PA 19383. West Chester University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.**

BIOCHEMIST—QUEENS COLLEGE/ City University of New York (CUNY)

Opening anticipated for **tenure-track assistant or associate professor of biochemistry** starting September 1987, to establish a vigorous and productive research program and to teach effectively at both undergraduate and graduate levels. Preferential consideration given to applicants whose approach includes the use of molecular biology and recombinant DNA techniques to study structure and function in biological systems, and to those having a chemical orientation in their research. Must have recent postdoctoral experience, excellent record in biochemical research, and ability to establish independent and productive research program; senior-level candidates must present a record of distinguished achievement. Send vitae, detailed description of research plans, and arrange to have three letters of recommendation sent by 28 February 1987, to: **Dr. George Axelrad, Chairman, Department of Chemistry, Box 8, Queens College-CUNY, Flushing, NY 11367-0904. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

BIOLOGIST. Tenure-track position starting fall 1987. Applicants should have a strong commitment to teaching in a liberal arts setting and be broadly trained with emphasis in two of the following fields: molecular evolution, immunology, developmental biology, neurobiology, animal behavior. The appointee will be expected to develop courses suitable for beginning students in addition to courses with prerequisites. Ph.D. and teaching experience required. Send curriculum vitae and have three letters of recommendation sent to: **Dr. Raymond Clarke, Biology Department, Sarah Lawrence College, Bronxville, NY 10708.** Deadline is 31 January 1987. *Equal Opportunity Employer.*

BIOLOGIST. One-year sabbatical replacement at private, liberal arts college for men. Offer a course in cell biology, senior seminar (undergraduate) on a particular topic, a specialty course. Please send applications, curriculum vitae, and three reference letters by 2 February 1987 to: **T. A. Cole, Department of Biology, Wabash College, Crawfordsville, IN 47933.** *Women and minorities are encouraged to apply. Equal Opportunity Employer.*

BIOLOGY: Two tenure-track positions at the assistant professor level, effective August, 1987. One appointment will be a **vertebrate biologist** with expertise in anatomy, physiology, behavior, and ecology; the other, a **molecular biologist** with expertise in immunology, genetics, and microbiology. Qualified applicants must have a Ph.D. degree and are expected to teach at the undergraduate and graduate levels within their disciplines and to participate in the introductory biology course. A commitment to research involving students is also expected. Salary range is \$22,500 to \$28,000 depending upon qualifications. Applicants should submit curriculum vitae, teaching philosophy, evidence of teaching effectiveness, research plans, and three letters of recommendation solicited by the applicants, by 13 February 1987 to: **Dr. Norman D. Gary, Chairperson, Department of Biology, Hood College, Frederick, MD 21701.** *Minorities are encouraged to apply. Equal Opportunity Employer.*

DEVELOPMENTAL BIOLOGIST Cornell University

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

Cornell University is an Affirmative Action/Equal Opportunity Employer.

OREGON—BIOCHEMISTRY FACULTY

Tenure-track position available in School of Dentistry at level of assistant professor. Applicants should be actively engaged in research in area of neurobiochemistry and have teaching experience. Ph.D. in biochemistry required. Applicant is expected to conduct independent and productive research and obtain external funding. Teaching duties include participation in courses in biochemistry to dental, dental hygiene, and graduate students. The salary commensurate with experience.

Application due 30 April 1987. Send curriculum vitae, bibliography, reprints, summary of career goals, research plans and three references to: **Biochemistry Search Committee, School of Dentistry, Oregon Health Sciences University, 611 Southwest Campus Drive, Portland, OR 97201.** *An Equal Opportunity Affirmative Action Employer.*

POSITIONS OPEN

BIOLOGY—SABBATICAL REPLACEMENT: One-year appointment beginning August 1987. Ph.D. with university/college teaching experience preferred. Broadly trained biologist with specialization in botany desirable. Responsibilities include an advanced course in area of specialty and participation in introductory courses. Send curriculum vitae, transcripts, and three letters of recommendation to: **Dr. David Jordan, Dean of Faculty, Austin College, Sherman, TX 75090** by 27 February 1987. *Equal Opportunity Employer.*

BIOCHEMISTRY FACULTY POSITION AT UNIVERSITY OF WISCONSIN-MADISON

The Department of Biochemistry at the University of Wisconsin-Madison invites applications for a position as assistant, associate, or full professor in the areas of bioprocessing, fermentation biochemistry, microbial physiology and/or cell physiology. Candidates must have demonstrated excellence and independence in biochemical research, and have a strong background of training in biochemistry. The University is developing a Biotechnology Center, and this position can be expected to involve strong interactions with that Center as well as with departments such as bacteriology, food science, food microbiology and toxicology, genetics and chemical engineering. The facilities of the Biochemistry Department include a pilot plant and the Department is committed to the development of a state of the art facility for growing organisms. The successful candidate will be expected to take a leading role in the development and administration of this facility. Applications, including a complete curriculum vitae and plans for future research, should be sent to: **Dr. W. S. Reznikoff, Department of Biochemistry, University of Wisconsin-Madison, Madison, WI 53706,** and candidates should have letters sent from three people familiar with them and their work. Applications should be received by 11 March 1987 in order to guarantee consideration. *The University is an Affirmative Action, Equal Opportunity Employer, and applications are encouraged from women and minorities.*

BIOMATHEMATICS/BIOSTATISTICS

Faculty appointments at assistant, associate, and full professor levels depending on qualifications. Areas of interest include molecular biology, structural biology, neurobiology, immunology, endocrinology, and epidemiology. Two or more years of postdoctoral experience or M.D. required. Faculty will be expected to develop strong research and teaching programs. Résumé to: **L. Tarallo, Human Resources Department, The Mount Sinai Medical Center, 19 East 98th Street, New York, NY 10029.** *An Equal Opportunity Employer.* Application deadline: 1 March 1987.

BOTANIST

The Hope College Biology Department has a tenure-track position for a botanist beginning August, 1987. Individuals qualified in any field of botany will be considered although persons specializing in plant physiology are particularly encouraged to apply. The appointment is expected to be at the rank of assistant professor. The successful candidate will teach in the general introductory course for biology majors, an introductory biology course for non-majors and be expected to develop an upper level botany course. In addition she/he will be expected to seek extramural funding to support an active research program which involves undergraduate students. Preference will be given to candidates with postdoctoral experience.

Hope College is a distinguished Christian co-educational, residential liberal arts college affiliated with the Reformed Church in America. Hope has maintained a strong tradition in science that involves both teaching and research.

Qualified applicants should arrange to have curriculum vitae, transcripts, a statement of teaching competencies, an outline of proposed research, and three letters of recommendation forwarded as soon as possible to:

**Dr. James M. Gentile, Chairman
Department of Biology
Hope College
Holland, MI 49423**

Deadline for completed applications will be 1 March 1987. *Applications from women and minority persons are encouraged.*

POSITIONS OPEN

Biophysicist (Crystallography). Conduct biomolecular crystal structure research. Design and develop research methods for solving protein structures, including direct and multiple wavelength methods. Write and run scientific computer programs in connection with experiments. Draft and submit scientific papers for publication. Requires Ph.D. in crystallography and ability to write and run scientific computer programs. Five day/37½ hour week. Salary \$23,500 per year. Mail résumés to: **NYS Job Service, 68 W. Huron Street, Buffalo, NY 14202.** D.O.T. code 041.061.034; job order number 0104745.

CELLULAR/MOLECULAR IMMUNOLOGIST

The Faculty of Biological Science, The University of Tulsa, invites applications for a **tenure-track assistant professor** position. Candidates with 1 to 3 years of postdoctoral experience and demonstrated research excellence are encouraged to apply. The successful candidate will be an integral part of a newly established Ph.D. program in molecular biology and biotechnology and will be expected to establish a vigorous externally funded research program as well as actively participating in teaching at the graduate and undergraduate level. The University will provide start-up funding and a newly renovated laboratory. This is an excellent opportunity to join a growing and dynamic biology department committed to excellence in research and the liberal arts. Applicants should submit curriculum vitae, description of research interests and goals, recent reprints, and three letters of reference to: **Michel J. Cloutier, Faculty of Biological Science, The University of Tulsa, 600 South College Avenue, Tulsa, OK 74104.** The committee will begin to consider applications 1 February 1987. *Equal Employment Opportunity Commission/Affirmative Action Employer.*

CELLULAR/MOLECULAR NEUROBIOLOGY

Applications are invited for a position at the assistant professor (tenure-track) or associate/full professor (tenured) level. Available 1 September 1987. Rank and salary will be commensurate with qualifications. Candidates should have Ph.D. or M.D. or equivalent and demonstrated ability to conduct independent research and attract extramural funding. Background in manipulating gene expression in mammalian cells, in particular, developing neural tissue pertaining to neuropeptides and/or cytoskeletal elements is desirable. Applicants also interested in synaptic plasticity, neuroendocrine regulation, or the cellular basis of behavior are encouraged to apply. Teaching experience in neuroanatomy desirable. For fullest consideration, applicants should submit curriculum vitae, a brief statement of research interests, representative reprints, and names of three references by 15 April 1987 to: **Dr. G. D. Pappas, Department of Anatomy, University of Illinois College of Medicine at Chicago, P.O. Box 6998 (M/C 512), Chicago, IL 60680.**

The University of Illinois is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

CELLULAR PHYSIOLOGIST/BIOCHEMIST

The Department of Biology, The University of Alabama, invites applications for a **tenure-track position at the ASSISTANT or ASSOCIATE PROFESSOR** level to begin August 1987. Area of research specialization open. Current departmental interests include adaptation, cancer, development, membranes, molecular biology, protein biochemistry, and toxicology. The successful candidate will be expected to develop an active, externally funded research program, supervise graduate students, and participate in departmental teaching programs. A Ph.D. and postdoctoral experience are required. Candidates for associate professor should have had a minimum of 4 years or equivalent experience at the level of assistant professor. Salary will be commensurate with experience. Applicants should submit curriculum vitae, statement of research interests, reprints, and at least three letters of reference by 16 February 1987 to:

**Dr. Ronald D. Hood, Chairman
Search Committee
Department of Biology
The University of Alabama
P.O. Box 1927
Tuscaloosa, AL 35487**

The University is an Equal Opportunity Employer.

POSITIONS OPEN

CELLULAR/MOLECULAR BIOLOGIST

Kalamazoo College invites applications for a 1-year sabbatical replacement position. Teaching responsibilities include immunology, biochemistry, a course for nonscience majors, and an additional advanced course such as molecular biology, cell physiology, or neurobiology. Begin in September 1987 and continue through the summer quarter of 1988. Send curriculum vitae and three letters of recommendation by 1 February 1987 to: **Dr. David A. Evans, Department of Biology, Kalamazoo College, Kalamazoo, MI 49007.** *Kalamazoo College is committed to diversity and particularly encourages women and minorities to apply.*

CELL BIOLOGIST (M.D. OR PH.D.) Postdoctoral or junior faculty level. Expertise in morphologic techniques and interest in enteric sciences. To develop independent research program, help direct GI morphology laboratory, and interact with multidisciplinary group of basic/clinical investigators in digestive diseases. Send curriculum vitae, bibliography and three references to: **N. F. LaRusso, M.D., Professor of Medicine and Associate Professor of Biochemistry and Cell Biology, Mayo Clinic and Medical School, Rochester, MN 55905.** *An Equal Opportunity/Affirmative Action Institution.*

CORNELL UNIVERSITY CELL BIOLOGIST/HISTOLOGIST

The Section of Physiology is seeking a highly qualified assistant professor in any area of modern cell biology. The applicant will be expected to develop a strong research program and to teach an upper level undergraduate lecture-laboratory course in histology. The applicants should hold a Ph.D., M.D., D.V.M. or equivalent degree and have postdoctoral experience. Candidates should submit curriculum vitae, including a list of publications, and statements of research interests and teaching experience. In addition, applicants should arrange for three letters of recommendation to be sent by 15 February 1987, to: **Dr. Klaus W. Beyenbach, Chair, Search Committee, Section of Physiology, VRT 826, Cornell University, Ithaca, NY 14853.**

Cornell University is an Affirmative Action/Equal Opportunity Employer.

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

CELL/DEVELOPMENTAL BIOLOGISTS: Pomona College's Biology Department invites applications for two 1-year, full-time, sabbatical replacement positions at the assistant professor level beginning September 1987. One appointee will teach an upper division course in cell biology and the other appointee an upper division course in developmental biology at the organismal or cell/molecular level. Each appointee will also teach an upper division course in area of specialty and participate in our team-taught introductory course sequence. A course for nonmajors in lieu of an upper division course will be considered for one of the candidates. Applicants should have a strong interest in undergraduate education. Send curriculum vitae, statement of teaching interest, research expertise, and three letters of recommendation by 1 February 1987 to: **Search Committee, Department of Biology, Pomona College, Claremont, CA 91711.** *Pomona College is an Equal Opportunity Employer.*

POSITIONS OPEN

CELL BIOLOGIST

The Department of Anatomy and Cell Biology at the University of Florida invites applications for a **tenure-track position at the assistant professor level** to be filled by 1 September 1987. The applicant should have a Ph.D. or equivalent and at least 2 years of postdoctoral experience and demonstrated ability to develop an independent research program. The specific area of expertise is open; however, the candidate should be conducting contemporary research directed toward the understanding of basic cellular and/or developmental processes. The appointee will be expected to take an active role in the department graduate program and participate in teaching one of the following areas: embryology, cell biology, histology, or gross anatomy. Previous teaching experience is not required, but there must be a strong interest in becoming accomplished in one of these areas. Applicants should send a complete curriculum vitae with reprints and names of three references to: **Dr. Kelly Selman, Chairman of Search Committee, Department of Anatomy and Cell Biology, Box J-235 JHMHC, University of Florida College of Medicine, Gainesville, FL 32610.**

Application deadline: 15 February 1987.
The University of Florida is an Equal Opportunity Affirmative Action Employer.

CHAIRMAN, DEPARTMENT OF ANATOMY Philadelphia College of Osteopathic Medicine

The Philadelphia College of Osteopathic Medicine (PCOM) invites applications for the position of Professor and Chairman of the Department of Anatomy. We are seeking an individual with strong leadership abilities to direct the educational and research programs of the department. Broad opportunities exist at PCOM, which is a recognized leader in osteopathic education, research, and clinical practice. In addition, the City of Philadelphia offers a wide variety of educational and cultural opportunities.

Applicants for the position should have a Ph.D. or D.O./Ph.D., and a proven record in teaching, administration, and research. Applications will be accepted until 30 January 1987. Interested candidates should send their curriculum vitae and the names, addresses, and telephone numbers of three references to:

**Walter C. Prozzileck, Ph.D.
Chairman, Search Committee
Department of Physiology and Pharmacology
Philadelphia College of Osteopathic Medicine
4150 City Avenue
Philadelphia, PA 19131**

PCOM is an Equal Opportunity Employer that offers a competitive salary and benefits package.

CHAIRPERSON OF BIOCHEMISTRY COLLEGE OF MEDICINE UNIVERSITY OF SOUTH FLORIDA

Applications are invited from candidates having a distinguished record of teaching and research, proven leadership and administrative ability. The successful candidate must have M.D. and/or Ph.D. degree. The candidate must have an excellent record for obtaining external funding, experience in medical and graduate education and postdoctoral training.

Applicants should send a complete curriculum vitae and names of three references no later than 6 February 1987 to: **Dr. Carleton H. Baker, Department of Physiology and Biophysics, College of Medicine, Box 8, University of South Florida, Tampa, FL 33612.**

The University of South Florida is an Affirmative Action Equal Opportunity Employer.

**The University of Texas
Health Science Center at Dallas
Department of Cell Biology
Chairperson**

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

POSITIONS OPEN

NATIONAL AIR AND SPACE MUSEUM Chairman, Space Science and Exploration Department

The National Air and Space Museum seeks candidates for the chairmanship of its Department of Space Science and Exploration. The incumbent will be responsible for guidance of research staff as well as management of department operations. The Space Science and Exploration Department is the focal point for the space-related historical research, curatorial, and archival activities of the Museum.

Candidates will possess a record of scholarly attainment and have shown intellectual leadership in a historical discipline. They will have demonstrated administrative capabilities and will possess interest in the problems and opportunities of a museum or similar organization. Candidates in history of science and technology, military, political, cultural, or business history, or related historical disciplines are encouraged to apply. Salary—range approximately \$39,000 to \$70,000, depending upon qualifications. Since this is a Federal Civil Service position, the person selected will be required to be certified by the U.S. Office of Personnel Management.

Send Federal Standard Form 171, curriculum vitae with list of publications, the names of three to five scholars in the field who could provide references, and a cover letter by 15 February to: **Announcement #86-662-F, Smithsonian Institution, Office of Personnel Administration, 900 Jefferson Drive, Southwest, Room 1423, Attn: Denise Wolf, Washington, DC 20560.**

The Smithsonian Institution is an Equal Opportunity/Affirmative Action Employer.

NATIONAL AIR AND SPACE MUSEUM Chairman, Aeronautics Department

The National Air and Space Museum seeks candidates for the chairmanship of its Department of Aeronautics. The incumbent will be responsible for guidance of research staff as well as management of department operations. The Aeronautics Department is the focal point for the aeronautics-related research, curatorial, and archival activities of the Museum.

Candidates will possess a record of scholarly attainment and have shown intellectual leadership in a historical discipline. They will have demonstrated administrative capabilities and will possess interest in the problems and opportunities of a museum or similar organization. Candidates in history of science and technology, military, political, cultural, or business history, or related historical disciplines are encouraged to apply. Salary—range approximately \$39,000 to \$70,000, depending upon qualifications. Since this is a Federal Civil Service position, the person selected will be required to be certified by the U.S. Office of Personnel Management.

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The Smithsonian Institution is an Equal Opportunity/Affirmative Action Employer.

DEPARTMENT OF MICROBIOLOGY/ CHAIRPERSON

The College of Medicine, Howard University, is seeking nominations and applications for the position of professor and chairperson, Department of Microbiology. Candidates should possess the Ph.D., M.D., or equivalent degree, have a distinguished record of research publications, experience in directing a research program, and a commitment to graduate education. A broadly interested and knowledgeable scientist-leader capable of developing, unifying, and inspiring research and educational programs based in the College of Medicine is sought. Address inquiries or send applications (curriculum vitae; names and addresses of three references) by 1 February 1987 to:

**Dr. Thomas E. Smith, Chairman
Search Committee for Microbiology
College of Medicine
520 West Street, NW
Washington, DC 20059**

Howard University is an Equal Opportunity/Affirmative Action Employer (M/F/H).

POSITIONS OPEN

Tulane University School of Medicine is seeking a **CHAIRPERSON** for the Department of Neurology and Psychiatry. Candidates should have a national reputation in the field of neurology/psychiatry with a substantial record of publication; significant teaching experience in a medical university; demonstrated commitment to excellence in patient care and community service; and outstanding administrative experience. Application or nomination for this position may be initiated by sending a detailed curriculum vitae to: **Dr. Larry E. Millikan, Professor and Chairman, Department of Dermatology, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112.** Applications will be accepted until 16 January 1987. *Tulane University is an Affirmative Action/Equal Opportunity Employer.*

CHAIRPERSON, DEPARTMENT OF PHARMACOLOGY AND THERAPEUTICS

The University of South Florida College of Medicine invites applications and nominations for the position of Chairperson, Department of Pharmacology and Therapeutics. The Department is responsible for teaching pharmacology to medical students, residents, and fellows and for maintaining a graduate program in pharmacology. The Chairperson must have a Ph.D. and/or M.D. degree, a distinguished record of scholarly academic and research achievements, a demonstrated dedication to teaching, and experience in administration. A vigorous capability for leadership is required. Applicants should send a letter of application summarizing their experience, curriculum vitae, and the names and addresses of three references on or before 1 February 1987 to:

Dr. H. N. Schnitzlein
Chairman, Search Committee
Department of Anatomy

University of South Florida College of Medicine
12901 North 30th Street, Box 6
Tampa, FL 33612

The University of South Florida is an Affirmative Action Equal Opportunity Institution.

CHEMISTRY

Indiana University of Pennsylvania invites applications for one **TENURE-TRACK POSITION** in biochemistry at the assistant/associate professor level, beginning fall 1987. Salary is competitive plus an ample fringe benefits program.

The successful candidate must be committed to quality teaching not only in biochemistry but in courses at the introductory level as well. Research participation in M.S. degree program in chemistry with emphasis on biochemistry is expected. Research interests should complement present staff. A Ph.D. in biochemistry is expected and teaching experience desirable.

Review of applications will begin 26 December and continue until position is filled. Applications must include a résumé, transcripts, and names, addresses and telephone numbers of four references, and a one- to three-page statement of research interests. Please send these materials to: **Dr. Richard A. Hartline, Department of Chemistry, Indiana University of Pennsylvania, Indiana, PA 15705; telephone: 412-357-2362 (Hartline) or 412-357-2360 (Chemistry Office).**

Indiana University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.

DIRECTOR CANCER RESEARCH UNIT

The Saskatchewan Cancer Foundation is soliciting applications for the newly established position of **DIRECTOR** of the Cancer Research Unit to be located in the new Saskatoon Cancer Clinic facility scheduled for completion in the fall of 1987.

This position will provide an excellent and exciting opportunity for an established investigator (Ph.D. or M.D.) to develop and supervise a cancer research program.

The successful candidate will have an appropriate academic appointment in the Division of Oncology of the College of Medicine, and an opportunity for cross appointment to other departments as required.

For details, contact: **Dr. D. J. Klaassen, Director, Saskatoon Cancer Clinic, Professor and Head, Division of Oncology, College of Medicine, University Hospital, SASKATOON, Saskatchewan, Canada S7N 0X0.**

POSITIONS OPEN

DEAN, COLLEGE OF AGRICULTURE AND LIFE SCIENCES

and DIRECTOR, VERMONT AGRICULTURAL EXPERIMENT STATION University of Vermont

Applications and nomination are invited for the position of Dean/Director beginning 1 July 1987. The Dean/Director is responsible for instructional, teaching, and service functions. The college has nine departments: Agricultural and Resource Economics; Agricultural Biochemistry; Animal Sciences; Botany; Human Nutrition and Foods; Merchandising, Consumer Studies, and Design; Microbiology (a department jointly administered by the College of Agriculture and Life Sciences and the College of Medicine); Plant and Soil Science; and Vocational Education and Technology. Faculty in the College participate in the university-wide Programs in Cell Biology, Home Economics, Environmental Studies and the Center for Rural Studies. Candidates should possess their Ph.D. in an appropriate discipline and credentials sufficient for tenure in an academic unit and should present a record of leadership, scholarly achievement, and administrative experience. Women and minority candidates are encouraged to apply. Nominations and applications (including résumé and names of referees) must be submitted by 15 February 1987 to:

**Professor George M. Happ, Chair
Search Committee for Dean of
Agriculture and Life Sciences**

Department of Zoology
Marsh Life Science Building
University of Vermont

Burlington, VT 05405-0086

The University of Vermont is an Equal Opportunity Affirmative Action Employer.

DEAN, COLLEGE OF ENGINEERING AND APPLIED SCIENCES: The University of Tulsa is accepting applications and nominations for the position of Dean, College of Engineering and Applied Sciences. The College consists of eight departments: Chemical Engineering, Chemistry, Electrical Engineering, Geosciences, Mathematical and Computer Sciences, Mechanical Engineering, Petroleum Engineering, and Physics. It is located in the new (1983) Keplinger Hall and receives excellent library and computing support from the University. The College faculty is composed of 86 members; the current student enrollment is 1026. The College has strong ties with many Tulsa area industries, sharing common interests in energy, information, research, and computing technologies.

The Dean of the College of Engineering and Applied Sciences reports to the Provost of the University. He/she will assume a leadership role in the academic and research development of the College and should be a recognized scholar, familiar with current trends in research, especially the emerging technologies. This individual must be able to represent the diverse constituencies of the College and promote the expansion of the Ph.D. programs in the College. The candidate should be enthusiastic and energetic, and have leadership qualities that will benefit interactions with programs in the other colleges of the University and will be advantageous in representing the College in interactions with the community and regional industry. Previous academic experience is preferred.

The position is open 1 June 1987, or as soon thereafter as is feasible for the candidate.

Deadline for applications and nominations is 1 March 1987, and should be sent to:

**Dean's Search Committee
The University of Tulsa
600 South College Avenue
Tulsa, OK 74104-3189**

The University of Tulsa has an Equal Opportunity/Affirmative Action Program for students and employees.

DEVELOPMENTAL BIOLOGIST

Temporary teaching position available as a visiting assistant professor for the academic year 1987 to 1988. Renewal possible. Applicants must hold doctoral degree, teaching experience preferred. For full consideration applications consisting of curriculum vitae, three letters of recommendation and transcripts should be received by 30 January 1987. Send to: **Dr. J. G. Vandenberg, Department of Zoology, North Carolina State University (NCSU), Raleigh, NC 27695-7617. NCSU is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

DEAN SCHOOL OF MEDICINE UNIVERSITY OF COLORADO HEALTH SCIENCES CENTER

Nominations and applications are invited for the position of Dean of the School of Medicine at the University of Colorado.

The Dean is the chief executive officer of the Medical School who is directly responsible to the Chancellor of the University of Colorado Health Sciences Center.

Responsibilities include the development and maintenance of quality educational, clinical, and research programs, the promotion of excellence in scholarly activities, and leadership in academic policies and program development. In addition, administration of fiscal matters for education, research, clinical, and faculty affairs is required.

Qualified candidates must have either an M.D. or a Ph.D. with administrative experience compatible with that of a chairperson of a department or division in a school of medicine and recognition as an investigator in original research.

All interested candidates should include a copy of their curriculum vitae to be submitted no later than 1 March 1987, to: **James H. Shore, M.D., Chairman, Dean's Search Committee, School of Medicine, Box A095, 4200 East 9th Avenue, Denver, CO 80262.** *The University of Colorado is an Equal Opportunity/Affirmative Action Employer.*

DEVELOPMENTAL AND NEUROBIOLOGISTS

The Department of Zoology, University of Alberta has a position available in **developmental biology and/or neurobiology.** Interaction with an active group of developmental biologists and neurobiologists, working on vertebrate and invertebrate animals, in the department and across the campus is expected. Applicants should minimally have a Ph.D. degree or equivalent and post-doctoral experience, and must be highly qualified investigators capable of a vigorous independent research program. The successful applicant will be expected to compete for Scholarship support from the Alberta Heritage Foundation for Medical Research (AHFMR) and/or University Research Fellowship from the Natural Sciences and Engineering Research Council (NSERC URF). NSERC URF appointment will be made at the rank of assistant professor (1986-87 salary \$31,612 to \$45,340); AHFMR Scholarship appointment may be at the rank of assistant professor or associate professor (1986-87 salary \$39,620 to \$57,236). Applicants should forward their curriculum vitae with names of three referees and selected reprints to: **Dr. R. E. Peter, Chairman, Department of Zoology, University of Alberta, Edmonton, Alberta T6G 2E9, Canada** by 15 February 1987.

The University of Alberta is an Equal Opportunity Employer, but in accordance with Canadian Immigration regulations, this advertisement is directed to Canadian citizens and permanent residents.

DIVISION DIRECTOR—INFECTIOUS DISEASE—DEPARTMENT OF MEDICINE, UNIVERSITY OF MIAMI SCHOOL OF MEDICINE is seeking a Director for the Division of Infectious Disease with a dual appointment as Director of AIDS Research and Treatment Program. In the latter position, reporting will be to the Dean, School of Medicine, for all matters related to the development and implementation of the AIDS Program; support will be provided by an administrative unit to assist in the AIDS-related program development and implementation. The individual selected will be expected, with the provision of appropriate resources, to develop a basic biochemical research program in infectious disease, so should be a physician with proven research productivity and be suitable for a senior faculty appointment. Interested applicants should submit curriculum vitae to: **Laurence B. Gardner, M.D., University of Miami School of Medicine, Department of Medicine (R-60), P.O. Box 016960, Miami, FL 33101.** *University of Miami is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

DIRECTOR, CLINICAL GENETICS PROGRAM

We are seeking a Director of the Clinical Genetics Program at New York Hospital-Cornell University Medical Center, a part of the Division of Human Genetics. Qualifications must include clinical experience in genetic disorders of children, supervision of genetic counselors, clinical research in genetics, and proven credentials of excellence in teaching of house staff and medical students in genetics. All applications will be held in confidence. Please respond to:

Maria I. New, M.D.
Professor and Chairman
Department of Pediatrics
New York Hospital-Cornell University
Medical Center
1300 York Avenue, N-236
New York City, NY 10021

DIRECTOR, PEDIATRIC OUTPATIENT DEPARTMENT

We are seeking a Director of the Pediatric Outpatient Department at New York Hospital-Cornell University Medical Center at the associate professor or professor level. Qualifications must include experience in the practice of general pediatrics either in a private practice or in an academic setting, proven credentials of excellence in the teaching of pediatric housestaff and medical students, an interest in scholarly pursuits in pediatrics and leadership in the ambulatory care of children. Interests in health economy, health policy, or ethics are also important. All applications will be held in confidence. Please respond to:

Maria I. New, M.D.
Professor and Chairman
Department of Pediatrics
New York Hospital-Cornell University
Medical Center
1300 York Avenue, N-236
New York City, NY 10021

EMINENT SCHOLAR IN APPLIED ECOSYSTEM ECOLOGY DEPARTMENT OF ZOOLOGY

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

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

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

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

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

POSITIONS OPEN

EDITOR

Universities Associated for Research and Education in Pathology (UAREP), a nonprofit university consortium, seeks an editor for the Third Series of the *Atlas of Tumor Pathology*. Candidates should be recognized experts in surgical pathology with a strong track record of publications in the field. Editorial or related administrative experience is highly desirable. The position is part-time and will involve frequent travel to the Washington, DC area. Applicants are asked to submit a current curriculum vitae to: UAREP, 9650 Rockville Pike, Bethesda, MD 20814. An Equal Opportunity Employer.

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

TTUHSC is an Equal Employment Opportunity/Affirmative Action Employer.

ENVIRONMENT RISK ASSESSMENT AND MANAGEMENT/ASSISTANT PROFESSOR, the Department of Environmental Sciences and Engineering of the University of North Carolina at Chapel Hill invites applications for this tenure-track position to teach and perform research at the graduate level. Applicants should have a Ph.D. with a background in public policy, management, economics, planning, environmental science or a related field. Applications will be received until 15 February 1987. A résumé and the names of three references should be sent to: Professor Morris A. Shiffman, Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina, Chapel Hill, NC 27514; telephone: 919-966-3849. Equal Opportunity Employer. Women and minorities invited to apply and identify themselves.

ENTOMOLOGY SCIENTIFIC ASSISTANT

The Department of Entomology of the American Museum of Natural History is seeking a Scientific Assistant to assist curators with our distinguished collection. Responsibilities include collection management, illustration, sorting and identification, preparation of dissections, mounting, labelling, loan preparation and assisting with research projects.

Qualified candidates must have a baccalaureate degree in the biological sciences with a concentration in entomology; some collection related experience and illustration skills preferred; interest and knowledge of *Diptera* helpful, and the ability to do detailed and meticulous work. Salary \$18,604 per annum. Excellent benefits. For consideration, please forward résumés to: Mr. Lee Vilensky, Personnel Department, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024. An Equal Opportunity Employer.

ICHTHYOLOGY SCIENTIFIC ASSISTANT

The Department of Ichthyology of the American Museum of Natural History is seeking a scientific assistant to participate in its research programs and activities. Responsibilities will include assisting in data collection, identification of specimens, preparation of research materials and the management, preparation and maintenance of the department's collection of preserved fishes, skeletons and facilities. Qualified candidates must have a baccalaureate degree in the biological sciences, background in ichthyology, experience handling scientific collections and equipment, manual dexterity and be detail-oriented. Salary \$18,604 per annum. Excellent benefits. For consideration, please send résumé to: Mr. Lee Vilensky, Personnel Department, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024. An Equal Opportunity Employer.

POSITIONS OPEN

ECOSYSTEM MODELER

A research faculty position is available at the Savannah River Ecology Laboratory of the University of Georgia. Applicants must have a Ph.D., publications, and be a U.S. citizen. Postdoctoral experience is preferred. Research emphasis will be on modeling wetland ecosystem processes. Faculty member will be expected to work on interdisciplinary projects related to southeastern freshwater wetlands. Knowledge and experience with computer programming and simulation models are necessary. Strong communication skills and ability to work collaboratively will be weighed heavily in evaluating candidates. Faculty rank and salary are negotiable. The deadline for application is 30 January 1987. Applicants should submit curriculum vitae, transcripts, selected papers, a letter of application stating research goals, and names, addresses, and telephone numbers of four references to: Dr. R. R. Sharitz, Chairperson, Search Committee, Savannah River Ecology Laboratory, P.O. Drawer E, Aiken, SC 29801. Telephone: 803-725-2472. The University of Georgia is an Equal Opportunity/Affirmative Action Institution.

FACULTY POSITION University of Utah School of Medicine

Research Ph.D. who has expertise with immunologic, hormone and receptor assays and is an independent investigator is needed for basic and clinical research program in reproductive immunology and endocrinology. Rank and salary open. For further information, send letter and curriculum vitae to:

James R. Scott, M.D., Professor and Chairman
Department of Obstetrics and Gynecology
University of Utah Medical Center
Salt Lake City, UT 84132

Applications must be postmarked by 15 February 1987. Applications received after the deadline may be considered if no qualified applications have been received by that time. The University of Utah is an Equal Opportunity/Affirmative Action Employer.

CENTER FOR GENE STRUCTURE AND FUNCTION FACULTY POSITIONS

Applicants are sought for positions in a Center for Gene Structure and Function recently established by the RCMI Program of the NIH and Hunter College. Appointees will hold tenure-track positions in the Department of Biological Sciences at the appropriate professorial level. We are especially interested in candidates with research interests in developmental biology but those in other areas of eukaryotic molecular/cell biology are also encouraged to apply. Appointees are expected to establish an independent research program and to participate in team-taught courses in their areas of expertise at the undergraduate and/or graduate level. Send curriculum vitae, future research interests, and names of three references to:

Professor Harvey L. Ozer
Program Coordinator
Center for Gene Structure and Function
Hunter College
City University of New York
New York, NY 10021

An Equal Opportunity/Affirmative Action Employer. Minority candidates are encouraged to apply.

FACULTY POSITION—BIOCHEMIST. Tenure-track opening at the assistant or associate professor level in the Department of Chemistry and Biochemistry at Texas Tech University for the fall semester of 1987. Minimum qualifications include a Ph.D. degree and postdoctoral experience. Candidates must demonstrate the ability to initiate an aggressive, independent research program and to teach at both the graduate and undergraduate levels. By 16 February 1987, applicants should forward a résumé and description of proposed research and arrange to have three letters of recommendation sent to: Professor David B. Knaff, Department of Chemistry and Biochemistry, Texas Tech University, Lubbock, TX 79409-4260. An Equal Opportunity/Affirmative Action Employer.

Drug Metabolist

Syntex, an international pharmaceutical and health care corporation, has an opening for a Biochemist/Chemist in Bioanalytical and Metabolic Research for a Pharmacologist with significant experience performing quantitative drug metabolism studies in vivo and in vitro. Your primary responsibility will be to design, implement, and interpret studies in laboratory animals and humans to define the absorption, distribution, metabolism, and excretion of new drug candidates. It will be necessary to work closely with researchers in related disciplines to acquire the information needed to obtain IND and NDA approvals for these new drugs.

This position requires a PhD in Pharmaceutical/Medicinal Chemistry or Biochemistry, as well as 0-5 years in the pharmaceutical industry. You should have working knowledge of separation and purification techniques, experience with analytical procedures involving radioisotopes, HPLC, GC, and TLC, and familiarity with the isolation, purification, and identification of metabolites and enzyme kinetics.



Please send your resume to Syntex, Dept. PS/SCI, 3401 Hillview Avenue, Palo Alto, CA 94304. An equal opportunity employer.



**State of Illinois
Department of Nuclear Safety
1035 Outer Park Drive
Springfield, Illinois 62704**

The ILLINOIS DEPARTMENT OF NUCLEAR SAFETY is one of only two cabinet-level state agencies devoted exclusively to nuclear and radiation safety.

The Department's comprehensive programs include:

- Emergency Planning and state coordination for response to accidents at nuclear power plants and nuclear fuel cycle facilities
- Monitoring radioactive releases from nuclear power stations and other nuclear fuel cycle facilities
- Overseeing the inspection of boilers and pressure vessels in nuclear facilities
- Inspection and escort of spent nuclear fuel shipments
- Monitoring and regulating low-level radioactive waste storage, treatment, transportation and disposal
- Licensing and inspection of medical and industrial facilities which use radiation producing equipment or radioactive materials
- Implementation of a state-wide radon monitoring and mitigation program
- Calibration of radiation measuring instruments

The following positions are available (unless otherwise specified, positions are in Springfield):

OFFICE OF NUCLEAR FACILITY SAFETY

—Nuclear Safety Engineer

Plant licensing
BWR/PWR system design and operations
Familiarity with ASME Code

—Nuclear Information System Specialist

DEC program development and maintenance
Dose assessment modeling
Plume and transport code analysis
Software quality control and graphical display generation
Communication and network support
VAX system programming

—Nuclear Safety Scientist

Emergency planning and technical analysis
Familiarity with modeling of severe nuclear power accident phenomena and resultant dose impacts (BWR/PWR design and/or Nuclear Chemistry desirable)
Familiarity with reactor modeling codes

OFFICE OF RADIATION SAFETY

—Nuclear Safety Inspector (two positions)

Inspection and enforcement
Nuclear materials program
X-ray inspection program
One position in DuPage County
—Radiation Calibration Specialist
Instrument Calibration Program

Send resumes to:

**Personnel Officer
IDNS
1035 Outer Park Drive
Springfield, IL 62704**

IDNS is an Equal Opportunity Employer and encourages applications from qualified minority and female candidates.

Entry-level positions also exist for recent college graduates with appropriate degrees.

New England Biolabs Expansion

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

Senior Staff Scientist:

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

Postdoctoral Positions:

1. Molecular Genetics

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

2. Molecular Parasitology

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

3. Gene Cloning

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

4. Protein Chemist

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

Molecular Biologist:

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

Candidates please submit curriculum vitae with three references to:

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



POSITIONS OPEN

The Department of Anatomy, University of Pennsylvania School of Medicine invites applications for four **TENURE-TRACK FACULTY POSITIONS**. Applicants should have research expertise in aspects of molecular biology, cell biology, developmental biology, or neurobiology. Preference will be given to programs involving x-ray crystallography or fiber diffraction, systems neurobiology and molecular genetics approaches to contractility or neurobiology. Many members of the department are also members of the Pennsylvania Muscle Institute and/or the Institute of Neurological Sciences. Teaching responsibilities will be in one of the following areas: cell and tissue biology, neurobiology or macroscopic anatomy. Rank depends on previous experience. Deadline for receipt of applications is 1 March 1987. Please submit curriculum vitae, a summary of research interests and three letters of recommendation to: **Dr. Frank A. Pepe, Chairman, Department of Anatomy, School of Medicine, University of Pennsylvania, Philadelphia, PA 19104-6058.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION

The Microbiology Department of The University of Texas at Austin has a position for an **associate professor in cellular or molecular biology of eukaryotes or prokaryotes**. This is an outstanding opportunity to join an excellent department during a period of expansion. Please submit curriculum vitae, including names and addresses of three references and a summary of research interests to: **Dr. William R. Folk, Search Committee Chairman, Microbiology Department, The University of Texas at Austin, Austin, TX 78712-1095.** *The University of Texas is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN BIOCHEMISTRY AND MOLECULAR BIOLOGY MAYO CLINIC AND MAYO MEDICAL SCHOOL

Staff-level position in Department of Biochemistry and Molecular Biology. Outstanding molecular or developmental biologist with demonstrated expertise in either somatic cell or germ line gene transfer techniques preferred. Highly qualified individuals with other molecularly oriented research interests are also encouraged to apply. Appointment level and academic rank will be commensurate with qualifications. Mayo Clinic offers an outstanding research environment in a medical and academic setting. Send curriculum vitae, statement of research interests, and names of three references by 15 January 1987, to: **Dr. Michael J. Getz, Chairman, Search Committee, Department of Biochemistry and Molecular Biology, Mayo Clinic/Foundation, Rochester, MN 55905.** Telephone: 507-284-2875. *An Equal Opportunity/Affirmative Action Institution.*



Faculty Position—Molecular Biology. Qualified Ph.D. and/or M.D. scientists are invited to apply for a **tenure-track faculty position**; rank and salary level commensurate with experience. The candidate should have an established record in the area of molecular biology with emphasis on the study of membrane receptors, transmitter/hormone action or ion channel function in eukaryotic cells. The successful candidate will complement existing research efforts in the department which include regulation of muscle function, transmembrane signaling mechanisms, neuropharmacology, protein structure-function relationships, and gene regulation.

Curriculum vitae, representative reprints, statement of future research direction, and names and addresses of three references should be sent to: **Dr. J. D. Potter, Chairman, Department of Pharmacology, University of Miami School of Medicine, P.O. Box 016189, Miami, FL 33101.** *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

FACULTY POSITIONS BIOMOLECULAR STRUCTURE AND FUNCTION

THE PENNSYLVANIA STATE UNIVERSITY

Applications are invited for two tenure-track positions at any level as part of an expanded research concentration in the area of biomolecular structure and function. Candidates are being sought in each of the following areas: (i) protein crystal structure determination and (ii) macromolecular computer graphics/energy calculations. The university has made a major commitment in this area including laboratory space and equipment necessary for the individual research programs, such as x-ray diffractometer including area detector, and computer graphics system. The positions will be available in either the Department of Chemistry, the Department of Molecular and Cell Biology, or as joint appointments in these departments. Joint affiliation with the newly formed Penn State Biotechnology Institute is also a possibility. Faculty already in the area include **Drs. S. J. Benkovic, G. A. Hamilton, W. DeW. Horrocks, Jr., K. A. Johnson, Juliette Lecomte, C. R. Matthews, D. I. Shalloway, and J. J. Villafranca.** Applicants should have the background, motivation, and ability to develop vigorous, productive research programs and to be excellent teachers. Reply to: **Search Committee for Biomolecular Structure and Function, Department of Chemistry, 152 Davey Laboratory, Box B2, University Park, PA 16802.** Please indicate the area for which you are applying. Include a detailed curriculum vitae, statement of research interests, and up to three recent representative reprints. In addition, the applicant should ask three individuals to send letters of reference directly to us. Review of applications will commence in January 1987. Deadline for receipt of applications is 1 March 1987, or until suitable candidates are identified.

An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN IMMUNOLOGY

Experienced immunologist with documented ability to establish a research program in cellular or molecular immunology and who likes to teach is sought. Potential for generating research support and for collaborative interactions with other faculty and trainees will be major considerations. Please include curriculum vitae, bibliography, names of references, and outline of research interest to: **Dr. D. Bernard Amos, Chief, Division of Immunology, Duke University Medical Center, P.O. Box 3010, Durham, NC 27710.** *An Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN IMMUNOLOGY OR VIROLOGY

The Department of Microbiology and Immunology of the University of Oklahoma Health Sciences Center invites applications for a **tenure-track faculty position** in any area of immunology or virology. Rank for each position will depend upon qualifications. Candidates with postdoctoral experience, as well as more senior scientists, will be considered. The applicants should have documented excellence in conducting independent research and be able to compete for extramural research support.

The position will provide excellent opportunities for conducting basic biomedical research in a department of eleven (11) faculty members with a strong emphasis on the molecular genetics and immunology of infectious agents. In addition, opportunities exist for interaction with twenty (20) adjunct faculty within a large medical complex. Ample start-up funds will be provided. Responsibilities will also include instruction of medical, dental, and graduate students but this initially will be at a minimum.

Please send curriculum vitae, a brief statement of research interests, copies of representative publications, and the names of three references to:

**Dr. Medeleine Cunningham
Department of Microbiology & Immunology
University of Oklahoma Health Sciences Center
P.O. Box 26901
Oklahoma City, OK 73190**

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

POSITIONS OPEN

FACULTY POSITION IN MEDICAL ENGINEERING

Massachusetts Institute of Technology (MIT) invites applications for the J.W. Kieckhefer Professorship in Medical Engineering—a **tenure-track junior faculty appointment** to be made jointly by the Harvard-MIT Division of Health Sciences and Technology (HST) and an MIT engineering department compatible with the candidate's area of expertise. Research space will be provided in the Department of Biomedical Engineering of the Massachusetts General Hospital (MGH). Duties include teaching at the undergraduate and/or graduate level in HST and the affiliated MIT Engineering Department, advising and supervising the research of MIT students, and conducting an active research program at the MGH in the broad area of biomedical engineering. The Kieckhefer Professor is expected to provide educational opportunities in the clinical setting to students from MIT and the Harvard Medical School and to develop collaborative research programs with hospital-based health care professionals.

Required qualifications include an earned doctoral degree in medical, biomedical, mechanical, chemical or electrical engineering with research experience in the application of technology to medicine and an extensive background in biomedical sciences such as anatomy, pathology, physiology and pathophysiology. Preference will be given to applicants with clinical experience and to those with postdoctoral research experience.

Qualified applicants should send a letter of application including a short statement of current and/or proposed research, curriculum vitae, and the names of three references by 1 April 1987 to: **Dr. Roger G. Mark, Co-Director, HST Division, HST, Room E25-519, Massachusetts Institute of Technology, Cambridge, MA 02139.**

MIT is an Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION IN MICROBIAL GENETICS. The Department of Biology, Middle Tennessee State University, invites applications for a tenure-track teaching position (assistant professor, Ph.D.) available August 1987. The successful applicant must have a strong background in microbiology and genetics. The person will be expected to teach lecture and laboratory sections in microbiology and genetics at the undergraduate and graduate level and general biology at the undergraduate level as well as direct student research. Some research and/or public service is expected. Deadline for application is 15 February 1987. Send application, transcripts, and three letters of reference to: **Dr. Marion Wells, Chairman, Search Committee, Box 252, Middle Tennessee State University, Murfreesboro, TN 37132.** *Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

FACULTY POSITIONS IN MICROBIOLOGY AND IMMUNOLOGY

The Department of Microbiology and Immunology, University of Health Sciences/The Chicago Medical School, invites applications for tenure-track faculty positions at the rank of **assistant or associate professor**. Applicants must have a Ph.D. and/or M.D. degree with solid training, research experiences, and interests in **molecular biology, medical virology, or immunogenetics**. The successful candidate will be expected to develop and maintain a strong independent research program and to participate in teaching medical and graduate students. The salary will be commensurate with qualifications, and a negotiable starting date. Applicants should send curriculum vitae, a brief outline of current and future research plans, and the names of three references to:

**Yoon Berm Kim, M.D., Ph.D.
Professor and Chairman**

**Department of Microbiology and Immunology
University of Health Sciences/
The Chicago Medical School
3333 Green Bay Road
North Chicago, IL 60064**

An Affirmative Action/Equal Opportunity Employer.

NATIONAL CANCER INSTITUTE

National Institutes of Health,
Public Health Service

CANCER PREVENTION FELLOWSHIP PROGRAM (CPFP)

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

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

DIRECTOR OF THE CANCER CENTER

Northwestern University

The University seeks to replace the Director of its Cancer Center. The Center occupies approximately 27,000 nsf of research space in the Health Sciences Building located adjacent to the Northwestern University Medical School and has an annual operating budget of approximately \$1,475,000, including NCI Core Grant support. The Center has developed strong research and training programs in tumor biology, and coordinates multidisciplinary clinical programs in cancer diagnosis and therapy.

The Center Director has authority for the Center's budget, space, appointments, and programs. Professional staff support is provided by Deputy or Associate Directors for Basic Sciences, Clinical Sciences, Biometry, and Graduate Education. Candidates for the directorship may hold an M.D. and/or Ph.D. degree(s), and should have acquired a national reputation for research excellence in tumor biology. Administrative experience is desirable, and the candidate should be qualified to hold a tenured professorship in the Medical School.

Send curriculum vitae and the names of three references by February 1, 1987 to:

Dr. Donald Nutter
Senior Associate Dean



Northwestern University
Medical School
303 East Chicago Avenue
Chicago, Illinois 60611

The University is an equal opportunity employer.

MOLECULAR BIOCHEMIST

The Pharmaceutical Research Division of Warner-Lambert has an immediate opening in our Biochemistry Section of the Pharmacology Department for a scientist whose work will focus on the molecular aspects of receptor signal transduction. The selected candidate will participate in a multidisciplinary environment, generating novel drug discovery strategies and evaluation techniques for a variety of therapeutic categories.

QUALIFIED APPLICANTS WILL POSSESS THE FOLLOWING:

- Ph.D. or equivalent in biochemistry, molecular biology, or pharmacology with 1-3 years postdoctoral experience.
- Experience in one or more of the following areas:
 - Intracellular ion and/or transmembrane ion flux measurement.
 - Protein phosphorylation associated with receptor activation.
 - Regulatory proteins (e.g. G proteins) involved in receptor signal transduction.
- Excellent oral and written communications skills as well as a documented record of research excellence.

We offer excellent compensation and benefits at our modern facilities adjacent to The University of Michigan Campus. Qualified applicants should send curriculum vitae in confidence to: **Ms. D. Love, Human Resources Supervisor, Warner-Lambert/Parke-Davis, 2800 Plymouth Road, Ann Arbor, Michigan 48105.**

WARNER LAMBERT

"EQUAL OPPORTUNITY IN ACTION"

POSTDOCTORAL TRAINING IN MOLECULAR, CELLULAR, AND DEVELOPMENTAL BIOLOGY

POSTDOCTORAL POSITIONS are available in the Department of Biology at the University of Rochester. Faculty available for training include:

Robert Angerer—Gene expression in early development.
Cheetip Benayati—Gene Regulation in *Drosophila*.
Thomas Eickbush—Expression and concerted evolution of multigene families.
Martin Garovsky—Gene organization, reorganization and expression in *Tetrahymena*.
Stanley Hattman—DNA methylation systems in pro- and eukaryotes; regulation of gene expression.
David Hinkle—DNA replication in yeast and bacteriophage T7.
Lasse Lindahl—RNA: protein interaction and the regulation of ribosome synthesis.
Joanna Olmsted—Cellular control of cytoskeleton assembly.
Terry Platt—Transcription termination in *E. coli* and yeast; nuclear import of proteins in yeast.
Satya Prakash—Regulation, nuclear localization and action of DNA repair proteins of yeast.
Robert Selander—Molecular population genetics of bacteria.
Edwin Stephenson—Molecular biology and genetics of *Drosophila* development.
William Wasserman—Regulation of meiosis and mitosis in oocytes and embryos.
Abraham Worcel—Chromatin structure and function.
Chung-I Wu—Molecular evolution of retroposons and meiotic drive.

Applications should state the faculty member(s) with whom the candidate wishes to work and should include curriculum vitae, references, and summary of research interests. Send applications to:

**Molecular, Cellular, and Developmental
Biology Postdoctoral Training Program
University of Rochester, Dept. of Biology
Rochester, New York 14627**

The University of Rochester is an affirmative action, equal opportunity educational institution.

NATIONAL SCIENCE FOUNDATION (NSF)

NSF's Division of Biotic Systems and Resources (BSR) is seeking qualified candidates for the position of **STAFF ASSOCIATE FOR RESEARCH NETWORKS**. The incumbent to this position will assume responsibility for certain program areas of the Division, especially for a major portion of the Division's activities in connection with the initiation, support and management of basic research involving computer and other administrative duties. The position will be filled on a rotational basis for one or two years and is excepted from the competitive civil service. Salary ranges from \$35,000 to \$50,000 per annum in accordance with the Rotator Program. Alternatively, assignment will be made under the provisions of the Intergovernmental Personnel Act (IPA). Individual must be nominated by home institution for IPA assignment.

Applicants should have an advanced degree or equivalent experience in a field of biology appropriate to BSR as well as in computer system design, implementation, management, and programming. Resumes should be sent to: **National Science Foundation, Personnel Administration Branch, Room 208, 1800 G St., NW, Washington, DC 20550. Attention: Catherine Handle.** For further information call 202/357-7840. Hearing impaired individuals should call 202/357-9489. NSF is an Equal Opportunity Employer.

POSITIONS OPEN

Faculty Positions in Molecular Immunology. The Department of Microbiology and Immunology at the University of Miami has several tenure-track faculty positions at the assistant or associate professor level open for molecular biologists with research interests in immunology. Candidates are sought with interests and skills in the study of the structural genes—their regulation and their products—that relate to immunoglobulins, T-cell receptors for antigen, lymphocyte differentiation antigens, and the major histocompatibility complex. Quality research facilities, generous start-up funds, and salary will be made available to the successful candidates. Interested individuals are invited to write a letter of intent and enclose curriculum vitae, list of publications, description of future research plans, and names of three references to: **Dr. Thomas Malek, Department of Microbiology and Immunology, University of Miami School of Medicine, P.O. Box 016960 (R-138), Miami, FL 33101. Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITIONS IN NEUROBIOLOGY UNIVERSITY OF TEXAS MEDICAL SCHOOL AT HOUSTON

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

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

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

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

FACULTY POSITION IN STRUCTURAL STUDIES

The Section of Biochemistry, Molecular and Cell Biology, Cornell University seeks applicants for a tenured or tenure-track position (level determined by candidate's qualifications and experience) in the broad area of structural studies (x-ray crystallography and image reconstruction of proteins and nucleic acids preferred). Starting between September 1987 and September 1988. Applicants must have a Ph.D., 2 years postdoctoral experience, and demonstrated excellence in their areas of research. The candidate chosen is expected to initiate an innovative research program and contribute to the teaching program.

Send curriculum vitae and summary of research plans and have three letters of recommendation sent, by 31 March 1987 to: **Professor George P. Hess, Search Committee, 254 Clark Hall, Cornell University, Ithaca, NY 14853.**

Cornell is an Affirmative Action/Equal Opportunity Employer.

PHYSIOLOGY FACULTY POSITION WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE

Tenure-track position available 1 July 1987, to be filled at the level of assistant or associate professor. Candidates for assistant professorship must have postdoctoral research experience and be able to develop a strong independent research program. Candidates for associate professorship must have established research program with extramural funding. Responsibilities include teaching of graduate and professional students in the health sciences. Deadline for receipt of all application materials is 16 February 1987. Send curriculum vitae, brief description of research interests, and three letters of reference to: **Dr. George A. Hedge, Professor and Chairman, Department of Physiology, West Virginia University Medical Center, Morgantown, WV 26506. Women and minorities are encouraged to apply.**

POSITIONS OPEN

FOREST SOILS/ECOLOGY

The School of Forestry and Environmental Studies at Duke University seeks to fill a full-time, tenured or tenure-track position in the combination of forest soils/ecology. Duke is a research-oriented, interdisciplinary professional and graduate school concerned with renewable natural resources. All academic programs are at the graduate level. Requires Ph.D. in forest soils or ecology, with teaching capability in both, and a research focus on forest ecosystem analysis and management. International interests and experience are desirable. Responsibilities: teach soils and forest ecology courses in the forest resources management program; advise students; direct graduate student research. Excellent opportunities exist for developing a research program on the Duke Forest and for cooperating with other programs in the region. Submit curriculum vitae, representative publications, transcripts (for recent graduates), and names of three references to: **Dan Binkley, Chair, Forest Soils/Ecology Search Committee, School of Forestry and Environmental Studies, Duke University, Durham, NC 27706; telephone 919-684-2421.** Position will remain open until 27 February 1987, or until filled. Starting date August 1987. *Equal Opportunity/Affirmative Action Employer.*

GASTROENTEROLOGIST—Board-eligible or -certified gastroenterologist to direct a new investigative unit at a major transplant center. Applicant must have a strong background in basic research, with emphasis on immunology/cell biology. Level of appointment based on experience and qualifications. **Dr. E. D. Thomas, Fred Hutchinson Cancer Research Center, 1124 Columbia Street, Seattle, WA 98104. An Equal Opportunity/Affirmative Action Employer.**

GENETIC TOXICOLOGIST/BIOCHEMIST IOWA STATE UNIVERSITY

Iowa State University invites applications for a tenured or tenure-track faculty position in the area of genotoxicology related to environmental pollutants. Applicants should have a strong record of research productivity in chemical carcinogenesis, DNA modification, and methodologies for monitoring human exposure. The position affords opportunities for interactions with laser spectroscopists developing advance fluorescence techniques for DNA damage analysis and with other researchers in the rapidly growing toxicology and biotechnology research communities at Iowa State University. The appointment would be a joint appointment with the Department of Zoology, Biochemistry and Biophysics and the Ames Laboratory and will start in 1987. Applications, which should include a résumé, bibliography, and brief description of research plans, must be received by 1 February 1987. Applications should be sent to: **Professor M. Duane Enger, Chairman of the Department of Zoology, Iowa State University, Ames, IA 50011.** Arrangements also should be made to have three letters of reference sent to the same address.

An Affirmative Action/Equal Opportunity Employer M/F/V/H.

HEAD, DEPARTMENT OF BIOLOGICAL AND AGRICULTURAL ENGINEERING

The School of Agriculture and Life Sciences of North Carolina State University is searching for an outstanding individual to administer the teaching, research, and extension programs of the Department of Biological and Agricultural Engineering. Candidates for the position should have a Ph.D. and an excellent professional reputation in agricultural engineering or a related field. Administrative experience or demonstrated leadership potential in academic affairs, research, and extension is preferred. Write for a complete job description or apply by sending a letter of interest, curriculum vitae, and names and addresses of three references by 15 March 1987 to: **Dr. R. H. Miller, Chairman, Search Committee, Box 7619, North Carolina State University, Raleigh, NC 27695-7619. North Carolina State University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

HEAD DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE

The University of Illinois College of Medicine at Chicago invites applications and nominations for the position of head of its Department of Physiology and Biophysics. Located in the West Side Medical Center in Chicago, the College of Medicine is a major institution for research and education in the health sciences. The department has an active graduate program with over 30 graduate students and numerous postdoctoral fellows.

Candidates should have a Ph.D. and/or M.D. degree, a record of outstanding scientific achievement, and the ability to administer a comprehensive academic program.

Interested individuals should send a curriculum vitae to:

**George Honig, M.D. Ph.D.
Chairman, Search Committee
Professor and Head
Department of Pediatrics
P.O. Box 6998
Chicago, IL 60680**

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

HUMAN GENETICS AT THE UNIVERSITY OF UTAH

The University of Utah, Department of Human Genetics, would like to fill two faculty positions at the assistant or associate professor level. The department is interested in recruiting investigators who are developing or using molecular genetic approaches in investigations of the molecular and cell biology of mammalian systems. Candidates with a demonstrated research interest in molecular genetic studies using human systems will have the highest priority. The Human Genetics Department at the University of Utah was founded 2 years ago and has excellent resources in molecular biology, *Drosophila* developmental biology and genetics, human gene mapping, genetic epidemiology, population studies, and scientific computing.

Application deadline will be 31 March 1987. Applications submitted after the deadline may be considered if no qualified candidates have applied by the deadline.

Send curriculum vitae and references to: **Dr. Raymond Gesteland, Human Genetics Recruitment Committees, Room 743, Wintrobe Building, University of Utah, Salt Lake City, UT 84132.**

The University of Utah is an Equal Opportunity Employer.

HUMAN LIVER FOR SCIENTIFIC INVESTIGATION

The NIH has awarded a contract to the University of Minnesota for a **Liver Tissue Procurement and Distribution System (LTPADS)** to set up regional centers for the collection of livers obtained at the time of transplant for scientific investigators nationwide. Proposed system activation date is 15 April 1987. Further information and proposal forms for interested investigators can be obtained from:

**Harvey L. Sharp, M.D.
LTPADS
Box 279 UMHC
University of Minnesota Hospital
Minneapolis, MN 55455
Telephone: 612-624-2422; 624-1133.**

IMMUNOLOGIST—Assistant/associate professorship; tenure track, 12-month salary basis, Ph.D. or M.D., 2 years' postdoctoral experience. Expect establishment of independent research program and participation in teaching medical and graduate students. Position available 1 March 1987. Submit curriculum vitae plus letter outlining research and teaching interests and have three reference letters sent by 31 January 1987 to: **Dr. Dean D. Manning, Department of Medical Microbiology, University of Wisconsin Medical School, 1300 University Ave., Madison, WI 53706. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.**

Protein Chemist Enzymologist

The Medicinal Chemistry Department of Smith Kline and French Laboratories has an excellent career opportunity for a person experienced in protein purification, enzymology, and enzyme kinetics to work in a state-of-the-art research facility near the Philadelphia suburb of Valley Forge. The selected individual will assist in the design of molecules destined to interrupt enzymatic processes; isolate, purify and characterize enzymes; analyze the interactions between molecules and potential biological targets; and effectively communicate results.

The successful candidate will possess:

- M.S. in Biochemistry or Bio-Organic Chemistry or equivalent (B.S. with 3 to 5 years experience).
- Minimum 2 years experience in protein/enzyme purification and characterization.
- Experience in the development of specific enzymes assays, preferably including the use of low-levels of radio-isotopes.
- Experience in modern analytical methods such as HPLC, protein electrophoresis and chromatography.
- Working knowledge of biological reaction mechanisms and enzyme kinetics is preferred.

We offer an excellent compensation, benefits, and relocation package as well as the opportunity for personal and professional growth. Please forward your resume to George P. Kissell, Jr., Manager, Personnel Relations, 1574 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer m/f/h/v.

SK&F
A SmithKline Beckman Company

Senior Biochemist Cholesterol Metabolism

The Squibb Institute for Medical Research is recognized internationally as a leader in developing novel therapeutic agents for the treatment of cardiovascular diseases. We have recently furthered our interest in the cardiovascular areas to include hyperlipidemia and related diseases. Consequently we are seeking an experienced biochemist to develop animal systems for the study of investigational drugs in cholesterol metabolism disorders.

Qualified individuals should have a Ph.D. in Biochemistry and a minimum of one year post doctoral experience in lipid biochemistry. Direct experience with experimental animal model is required. The highly challenging opportunity demands a creative approach to the study of cholesterol metabolism and a strong interest in the development of anti-hypercholesterlemic drugs.

Squibb is located in Princeton, NJ, a pleasant semi-rural setting convenient to both New York City and Philadelphia. In addition to an excellent salary and comprehensive benefits package, we can offer the opportunity for exceptional scientists to pursue stimulating careers. For consideration, please submit your curriculum vitae to: **The Squibb Institute for Medical Research, Human Resources Department 281, P.O. Box 4000, Princeton, NJ 08543-4000.** An equal opportunity employer.



SQUIBB

Where science comes to life.

HEALTH SCIENCE ADMINISTRATOR, GM-601-15

Salary Range \$53,308 to \$69,301 per annum

Scientific Programs Branch

Extramural Program

National Institute of Environmental Health Sciences

The National Institute of Environmental Health Sciences, National Institutes of Health, Public Health Service, seeks applicants for the position of Chief, Scientific Programs Branch of the Institute's Extramural Program. The Scientific Programs Branch has a primary responsibility for the planning and direction of basic and applied research in the area of environmental health and related diseases. The position requires participation with the Associate Director of the Extramural Program and with the Institute Director and his staff in establishing research priorities and in implementing and conducting specific grant programs.

An applicant must have a Ph.D. or its equivalent in toxicology, pharmacology, physiology or other health-science subjects related to this position. In addition, candidate must possess significant professional experience in the field of environmental health or experience gained in grants administration in scientific fields related to the environment. He/she must be familiar with research approaches relevant to these areas. U.S. citizenship is required. Appointment will be made in the Federal civil service or the U.S. Public Health Service Commissioned Corps. Those interested in being considered for this position should submit a completed Form SF-171 (Application for Federal Employment), along with a Curriculum Vitae and Bibliography, to **Ms. Lou Rozier, NIEHS Personnel Office (1-01), National Institute of Environmental Health Sciences, P.O. Box 12233, Research Triangle Park, NC 27709.** For additional information, please contact **Ms. Rozier at (919) 541-7513.**

An Equal Opportunity Employer



ROYAL BRISBANE HOSPITAL FOUNDATION DIRECTOR CLINICAL RESEARCH CENTRE

Applications are invited from suitably qualified medical practitioners for appointment as Director, Clinical Research Centre, of the Royal Brisbane Hospital Foundation.

The appointee should be currently active in research in clinical medicine with a substantial research achievement, an international reputation and an extensive list of publications. The appointee should hold relevant qualifications for registration as a specialist medical practitioner within the state of Queensland.

The appointee will be the inaugural Director of the Clinical Research Centre, to be located at the Royal Brisbane Hospital, and will be responsible to the Royal Brisbane Hospital Foundation through the Research Committee.

The major objective of the Centre is to facilitate research into clinical problems relevant to Queenslanders.

The Director will establish the Centre and develop policies to determine the direction of research and be responsible for the administration of day to day activities of staff appointed to the Centre.

While the position will primarily be to undertake and co-ordinate clinical research activities, the Director will be encouraged to carry out clinical responsibilities as appropriate within the Royal Brisbane Hospital. This is a 1200 bed teaching hospital associated with the University of Queensland, situated at Herston adjacent to the Medical School and on the same campus as the Queensland Institute of Medical Research, the Royal Children's Hospital, the Royal Women's Hospital and the Queensland Radium Institute.

A suitably qualified appointee will be considered for appointment as an Honorary Professor within the Faculty of Medicine, University of Queensland and also to a senior position in the Queensland Institute of Medical Research. In accordance with the policy of the National Health and Medical Research Council for appointments of Senior Principal Research Fellows (Professorial level), the appointment will be for a period of 5 years with a reappointment review after 3 years.

A salary appropriate to the qualifications of the appointee will be paid, with entitlements for recreation leave, study leave and long service leave. An attractive superannuation scheme is available and an initial establishment grant and removal expenses will be provided. Funding for the employment of a scientific officer, secretarial assistance and a maintenance budget is available.

Further information may be obtained from **Dr. C.B. Campbell, Medical Superintendent, Royal Brisbane Hospital, Herston, Queensland 4029, Australia (telephone (07) 253 8223).** Applicants should submit a detailed curriculum vitae with a list of publications, indicating the publication which they consider most significant. The names should be provided of five referees including three research workers with international reputations in the field of interest of the applicant. It is expected that the appointee will take up the position no later than the end of 1987.

POSITIONS OPEN

IMMUNOLOGIST

Tenure-track assistant professor in the Department of Life Sciences. Ph.D. with 2 years of postdoctoral experience required. The candidate is expected to establish a research program and participate in undergraduate and graduate teaching. While applicants trained in any area of immunology will be considered, individuals with expertise in molecular immunology, immunogenetics, and mechanism of pathogenesis or immunoregulation are encouraged to apply. Position available September 1987. Submit letter outlining research and teaching interest, curriculum vitae, bibliography, and three reference letters to: **Dr. William J. Brett, Chairman, Department of Life Sciences, Indiana State University, Terre Haute, IN 47809, by 15 February 1987. Indiana State University is an Equal Opportunity/Affirmative Action Employer.**

IMMUNOLOGIST—The Department of Microbiology and Immunology invites applications for a **tenure-track faculty position at the rank of assistant or associate professor.** We are particularly interested in immunologists studying the differentiation, activation, and/or effector functions of lymphocytes. Applicants should have a Ph.D. or M.D. degree, at least 2 years of postdoctoral experience, and an interest in teaching within the medical and graduate student programs of the department. Applicants should submit curriculum vitae, a statement of research plans, and names of references by 28 February 1987 to: **Dr. D. C. Bauer, Chairman, Department of Microbiology and Immunology, Indiana University School of Medicine, 365 Barnhill Drive, Indianapolis, IN 46223. An Equal Opportunity/Affirmative Action Employer.**

IMMUNOLOGIST

The Department of Biology at Loyola University of Chicago seeks an immunologist for a tenure-track position at the assistant professor level beginning August, 1987. Ph.D. and postdoctoral experience required. The candidate will develop an active research program, direct graduate students, and teach at graduate and undergraduate levels. Applicants should send curriculum vitae, statement of research interests, and list of at least three references by 31 January 1987 to: **Dr. Jeffrey Doering, Chairman, Biology Search Committee, Loyola University of Chicago, 6525 North Sheridan Road, Chicago, IL 60626. Loyola University of Chicago is an Equal Opportunity Employer.**

Immunopathologist—The Department of Laboratory Medicine at the Yale University School of Medicine is seeking an M.D. or Ph.D. at the **assistant or associate professor** level who will serve as co-director of the Histocompatibility Laboratory at Yale-New Haven Hospital, effective on or about 1 July 1987. The appointee will be expected to participate in the clinical and administrative management of the histocompatibility laboratory in collaboration with the transplantation service, contribute to the department's teaching activities, and establish an independent research program. Applicants should have training and/or experience in cellular immunology and histocompatibility and documented evidence of scholarship in those areas. Applicants with interests and expertise in molecular biology are of special interest. Board certification or eligibility in clinical pathology is desirable, but candidates with other relevant qualifications will be considered.

Applicants should send curriculum vitae and addresses of three references to: **Joseph R. Bove, M.D., Chairman Search Committee, Department of Laboratory Medicine, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510, on or before 1 February 1987.**

Yale University is an Equal Opportunity/Affirmative Action Employer. Women and other minority candidates are encouraged to apply.

INSECT PHYSIOLOGIST with Ph.D. to establish active research program and to teach graduate-level course in insect physiology and contribute to the biology core curriculum. Postdoctoral experience preferred. Tenure-track, 9-month assistant professor position to begin 16 August 1987. Send brief description of research and teaching interests and experiences, curriculum vitae, and three letters of recommendation to: **W. J. Bell, Entomology Department, Haworth Hall, University of Kansas, Lawrence, KS 66044. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

The Division of Cardiology at The University of Texas Health Science Center at Dallas is requesting applications for a position as an **INSTRUCTOR OF MEDICINE.** Candidates should have a Ph.D. in biochemistry with at least 4 years of postdoctoral fellowship training, which includes 3 years of training in cardiac membrane lipid metabolism and 1 year of training in molecular biology. Training or experience must also include assay of purine nucleotides and phospholipids, direct familiarity with cultured myocardial cells, experience with HPLC, protein purification, and experience with eukaryotic viral vectors. Will also be largely responsible for training other personnel in our laboratory in the above techniques. Address inquiries to: **Kenneth R. Chien, M.D., Ph.D., Division of Cardiology, University of Texas Health Science Center, 5323 Harry Hines Boulevard, Dallas, TX 75235. Equal Opportunity Employer.**

INSTRUCTOR POSITIONS

Six special 1-year positions as instructor to gain experience in patient care, education, and research in one of the various subspecialties of ophthalmology. Satisfactory completion of ACGME-approved ophthalmology residency a prerequisite. Contact: **Paul E. Lichter, M.D., Chairman, Department of Ophthalmology, University of Michigan, W. K. Kellogg Eye Center, 1000 Wall Street, Ann Arbor, MI 48105. An Affirmative Action Employer.**

FIVE OPHTHALMOLOGISTS—University of Michigan, full-time faculty positions, instructor, assistant, associate, or full professor. Training in ophthalmology. Opportunity for clinical and laboratory research, resident and student teaching, and clinical practice. Contact: **Paul R. Lichter, M.D., Chairman, Department of Ophthalmology, University of Michigan, W. K. Kellogg Eye Center, 1000 Wall Street, Ann Arbor, MI 48105. An Affirmative Action Employer.**

JUNIOR FACULTY POSITION FOR COAGULATION RESEARCH TEAM. The Department of Laboratory Medicine in the University of Washington School of Medicine is recruiting a Board-certified or -eligible clinical pathologist for appointment as an **assistant professor.** Candidates should be prepared to participate in a research team in coagulation under the direction of the principal investigator of the supporting grant. In addition, the candidate should be prepared to assume some responsibilities within the coagulation and hematology divisions of the department. Please submit curriculum vitae by 1 February to: **Dr. Gottfried Schmer, Department of Laboratory Medicine, University of Washington SB-10, Seattle, WA 98195. The University of Washington is an Affirmative Action/Equal Opportunity Employer.**

UNIVERSITY OF HONG KONG LECTURER IN PHYSIOLOGY

Applications are invited for a **Lectureship in the Department of Physiology**, available immediately. The appointee will be required to participate in the teaching of physiology to dental and medical students. Preference will be given to applicants with higher degrees in physiology or medical or dental degrees. Some research and teaching experience is desirable, together with a special research interest in one of the following areas: (i) neurophysiology, (ii) cardiovascular physiology, (iii) biophysics, (iv) biomedical engineering, and (v) gastroenterology. Annual salary (superannuable) is on an 11-point scale: HK\$176,880 to HK\$295,680 (approximate U.S. \$1=HK\$7.80 equivalent as at 19 November 1986). Starting salary will depend on qualifications and experience. A medically qualified appointee who has just completed his preregistration year will be appointed as a lecturer at the minimum point of the scale. At current rates, salaries tax will not exceed 17% 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 Secretary General, Association of Commonwealth Universities (Apts), 36 Gordon Square, London WC1H 0PF, or from The Appointments Unit, Registry, University of Hong Kong, Hong Kong. Closes: 16 February 1987.**

POSITIONS OPEN

THE HEBREW UNIVERSITY OF JERUSALEM

LECTURER AND RESEARCHER IN BREEDING OF ORNAMENTAL PLANTS. An opening is available in the **Department of Horticulture, Faculty of Agriculture, The Hebrew University, Rehovot, Israel,** for a Ph.D., scientist with postdoctoral training in molecular biology and/or genetics. The candidate should be well versed in classical genetics and breeding and also in the use of modern molecular techniques in breeding. Experience in agricultural research, especially in ornamental plants, is an advantage. If necessary, the candidate will be given the required time to complete his studies.

The candidate's responsibilities will include teaching a course in ornamental plant breeding and participating in teaching other courses, all of which will be conducted in Hebrew. He will be expected to develop research projects in the field of ornamental plant breeding and to guide graduate students.

The position will be opened in October 1987. Candidates should apply to: **Professor S. Gazit, Head, Department of Horticulture, The Faculty of Agriculture, P.O. Box 12, Rehovot 76100, Israel,** and include curriculum vitae and list of publications. In addition, recommendation from three to four scientists should be sent direct, to the above address.

MEDICAL IMMUNOGENETICISTS

National clinical laboratory has immediate openings available for doctoral-level scientists. Positions require interpretation and reporting of hemogenetic testing for parentage determination. Ph.D. in either immunology or genetics is preferred. The positions require travel and expert witness testimony. Send current résumé and three references to:

**Roche Biomedical Laboratories, Inc.
Attention: Personnel Department
P.O. Box 2230, Burlington, NC 27215
Equal Opportunity Employer M/F/V/H.**

MEDICAL PHYSIOLOGIST

**Indiana University School of Medicine
Muncie Center for Medical Education at
Ball State University
Ball State University
Muncie, Indiana 47306**

Applications are invited for a Ball State University tenure-track faculty position in the area of medical physiology. Applicants are expected to have postdoctoral experience and demonstrated research capability. The successful applicant will be expected to develop an active research program supported by outside funding. The position includes team teaching medical physiology to first-year medical students. There is a possibility for a joint appointment in either the Ball State University Human Performance Laboratory or Department of Physiology and Health Science. Salary will be commensurate with experience. Review of applications will begin 15 February 1987 and continue until position is filled. Send curriculum vitae, graduate school transcripts(s), a brief summary of research experience, and names of three or more references to: **Dr. Douglas A. Triplett, Director, Muncie Center for Medical Education, Ball State University, Muncie, IN 47306.**

Ball State University practices Equal Opportunity in education and employment.

MEMBRANE BIOCHEMIST

A **RESEARCH ASSOCIATE** position is available immediately for a membrane protein biochemist to participate in structural and functional studies and reconstitution of receptor proteins. Responsibilities include purification and reconstitution of the function of the isolated proteins and their use as biosensors for drugs and toxicants. A Ph.D. in biochemistry, chemistry, neuroscience, or pharmacology is necessary. Salary is dependent upon experience.

Send curriculum vitae and the names of three references to: **Dr. M. Eldefrawi, Department of Pharmacology and Experimental Therapeutics, University of Maryland School of Medicine, 655 West Baltimore Street, Baltimore, MD 21201. Affirmative Action/Equal Opportunity Employer.**

Molecular Neurobiologist

The Molecular Neurobiology Group at Pfizer Central Research has an opening for an individual to work in the exciting new area of molecular neuropharmacology. You should have experience in tissue culture of neuronal cells and/or basic molecular biology techniques. A Master's degree or two years post-Bachelor's degree experience in a laboratory working in the areas of tissue culture or molecular biology is required.

In addition to a stimulating scientific environment, 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 experience to: Lorraine C. Corr, Personnel Associate, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



An equal opportunity employer

PRIVATE LABORATORY ENGAGED IN PHARMACEUTIC RESEARCH FOR NEW DRUGS

NEEDS

scientist

Réf. 11083A

With an experience in cell biology, applicants should be familiar with data processing from flow cytometer, biochemical analysers (HPLC, B-j counters, general densimeters...) and cell biology devices (counters, Eliza automates...).

biochemist

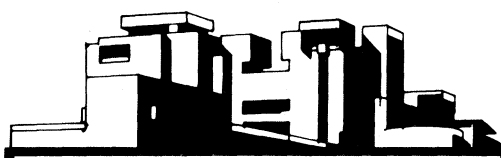
Réf. 11083B

Applicants should have, if possible, experience in measuring of metabolic changes associated with cell transformation, in studies of antitumorals mode of action and in cell culture techniques including flow cytometry.

Knowledge in French would be desirable.

Location nearby west of PARIS (FRANCE).

Candidates are invited to send a man-written letter with photo + CV including full description of current position to : **PUBLIVAL**, 27 Route des Gardes 92190 MEUDON (FRANCE).



DIRECTOR CLIMATE AND GLOBAL DYNAMICS

The National Center for Atmospheric Research (NCAR) invites nominations and applications for the position of Director of its newly created Climate and Global Dynamics (CGD) Division. The new division is composed of the Climate, Large-Scale Dynamics and Oceanography Sections of the former NCAR Atmospheric Analysis and Prediction Division, and the Natural Systems Group, and the Environmental and Societal Impacts Group of the NCAR Advanced Study Program. CGD research will be focused on global climate and its relationships with other elements of earth's geophysical environment. Major areas will be theoretical and observational studies of the dynamics and thermo-dynamics of the atmosphere and oceans, and interactions among the atmosphere, the oceans, land surfaces and the biosphere. Much of CGD's research will be carried out in collaboration with university colleagues or as part of various national and international programs.

The Director ensures the scientific productivity, creativity, and excellence of the division; formulates and executes long- and short-range plans; oversees the operations, management, and development of the division's staff and resources, and ensures that CGD contributes actively to collaborative research with university scientists and to national and international research programs. As a member of the NCAR management team, he/she participates actively in NCAR strategy, policy and administrative matters.

REQUIRES: Ph.D. in atmospheric, ocean or related physical science OR the equivalent combination of education and experience; international recognition for scientific leadership in areas of CGD interest, as demonstrated by a research record of depth and breadth sufficient to provide long-term leadership of the division, and sufficient to qualify for appointment as Senior Scientist at NCAR; demonstrated familiarity with the effective management and direction of a complex research enterprise, and skill in directing and evaluating staff.

We request that letters of application or nominations be sent promptly for consideration in late February. Applications or equivalent expressions of interest should be accompanied by a resume and publications list. Please send letters and materials to: **Dr. Richard A. Anthes, Director, NCAR, P.O. Box 3000, Boulder, CO 80307.**

NCAR is operated by the 55-institution University Corporation for Atmospheric Research, an equal opportunity, affirmative action employer, under the sponsorship of the National Science Foundation.

NCAR
National Center
for Atmospheric Research

POSITIONS OPEN

MOLECULAR BIOLOGISTS TWO FACULTY POSITIONS

The Department of Medical Genetics, Indiana University School of Medicine, is seeking candidates for a professor/associate professor and an assistant professor/instructor in molecular genetics. These are largely research positions. It is anticipated that the senior position will be filled first. Candidates should have an established, well-funded research program. Salaries and laboratory facilities are competitive. Address inquiries to: **Dr. M. E. Hodess, Department of Medical Genetics, RR 241, 702 Barnhill Drive, Indianapolis, IN 46223.** *Indiana University is an Equal Opportunity/Affirmative Action Employer.*

TEMPLE UNIVERSITY DEPARTMENT OF BIOLOGY MOLECULAR BIOLOGY AND GENETICS

The Department of Biology is seeking candidates for faculty appointments in molecular biology and genetics. The positions available are in the areas of gene expression in prokaryotes and viruses and gene action in relation to problems in developmental biology, cell biology, and neurobiology. Successful candidates will also hold appointments in the University's Institute of Molecular Biology and Genetics.

The department invites applications for these tenure-track appointments, which will be effective for the academic year 1987-88. All candidates are expected to have postdoctoral experience. Faculty appointed to these positions will maintain independent research programs, interact with existing faculty in the department, and contribute to both graduate and undergraduate education in their areas of specialization. Please send curriculum vitae, copies of representative publications, a summary of previous and proposed research, and the names and addresses of three references to: **Dr. Ralph Hillman, Chairman, Department of Biology, 015-00, Temple University, Philadelphia, PA 19122.** Closing date for application is 15 February 1987. Applications will be reviewed upon receipt.

Temple University is an Equal Opportunity/Affirmative Action Employer.

MOLECULAR BIOLOGISTS

Molecular Biosystems, Inc. (MBI), is an innovator in the development of diagnostics based on nonradioactive hybridization probes. Our rapid expansion has created several positions in our diagnostics development group.

Qualified candidates will have an advanced degree in molecular biology, microbiology, virology or related fields with 2 to 5 years of specific hybridization experience. Regulatory experience is a plus. Responsibilities will include the design and testing of probes for specific disease diagnosis.

Submit résumés with salary information to:



Molecular Biosystems, Inc.
11180-A Roselle Street
San Diego, CA 92121
Attn: Joyce Comeaux

MBI is an Equal Opportunity Employer.

MOLECULAR SYSTEMATIST

The Academy of Natural Sciences of Philadelphia seeks an outstanding molecular zoologist for the career-track position, Assistant/Associate Curator of Systematics and Evolutionary Biology. Qualifications: (i) Ph.D. in biology or biochemistry, (ii) demonstrated research skills in molecular systematics and evolutionary biology, (iii) a primary interest in the natural history of organisms, (iv) ability to attract grant support for research program, and (v) willingness to assist in the curation of the Academy's valuable research collections relevant to applicant's area of expertise. Potential exists for adjunct appointment and graduate students at the University of Pennsylvania.

Send curriculum vitae, letter summarizing research interests, reprints, and names and addresses of three references no later than 23 February 1987 to: **Molecular Systematist Search Committee, c/o J. Wheeler, The Academy of Natural Sciences of Philadelphia, 19th and the Parkway, Philadelphia, PA 19103.** *The Academy of Natural Sciences is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

MOLECULAR DEVELOPMENTAL BIOLOGIST

The Molecular and Cell Biology Department of the University of Connecticut invites applications for a tenure-track position to be filled at the assistant or associate professor level beginning September 1987. The candidate is expected to carry on an innovative research program, to participate in teaching a course in developmental biology, and to integrate into our multidisciplinary graduate and research programs. Candidates must have a Ph.D. degree and relevant postdoctoral experience. Applicants whose research interests are in cellular and molecular interactions or gene regulation in development are especially encouraged to apply. Applicants should submit curriculum vitae, a statement of research interests, and names of three referees to: **Dr. Jean Lucas-Lenard, Department of Molecular and Cell Biology, University of Connecticut, 75 North Eagleville Road, U-125, Storrs, CT 06268.** Consideration of applications will begin 15 February 1987. *The University of Connecticut is an Equal Opportunity Employer and encourages applications from qualified minority groups and women (Search #7A189).*

MOLECULAR NEUROBIOLOGY

A postdoctoral position is available immediately to study the expression of homeo box-containing genes in the medicinal leech and the possible roles of such genes in the segmental differentiation of the nervous system. Strong background in molecular biology and/or immunochimistry preferred. Send curriculum vitae and names of three references to: **Professor Eduardo R. Macagno, Department of Biological Sciences, 1003B Fairchild, Columbia University, New York, NY 10027.** *Columbia University is an Affirmative Action/Equal Opportunity Employer.*

BARROW NEUROLOGICAL INSTITUTE DIVISION OF NEUROBIOLOGY

Is inviting applications for a tenure-track staff position. An investigative neuroscientist with a Ph.D., postdoctoral training, and experience in CNS motor neurophysiology is being sought. Particular attention will be directed toward an evaluation of the candidates' research achievements, their demonstrated or potential capability for obtaining research support, and the extent to which their research program would complement others in the Division. Please forward a letter of application, list of references, and curriculum vitae to: **James R. Bloedel, Chairman, Division of Neurobiology, Barrow Neurological Institute, St. Joseph's Hospital and Medical Center, 350 West Thomas Road, Phoenix, AZ 85013.** *St. Joseph's Hospital is an Equal Opportunity Employer.*

NEUROPSYCHOLOGIST FACULTY POSITION

The Division of Medical Psychology, Department of Psychiatry, of Duke University of Medical Center is recruiting a neuropsychologist with both clinical and research interests in Alzheimer's disease and dementia. This person needs to be a trained clinical neuropsychologist and preferably a diplomate in clinical neuropsychology from the American Board of Professional Psychology. The person also needs to have an active research program in an aspect of brain behavior relationships pertinent to dementia that serves to guide his/her clinical assessment and/or rehabilitation activities. This person will be expected to engage in neuropsychological clinical and research activities and to collaborate with clinicians and researchers from other biomedical disciplines in the study and date of patients seen in the Alzheimer's Center. Furthermore, there are opportunities for collaboration with faculty and programs of the center for the Study of Aging and Human Development, the Departments of Psychiatry and Radiology, and an emerging program in Neurosciences.

Rank and salary are commensurate with qualifications. Applicants should send a letter outlining their clinical and research interest, curriculum vitae, and three letters of reference to: **Robert J. Thompson, Jr., Ph.D., Professor and Head, Division of Medical Psychology, P.O. Box 3362, Duke University Medical Center, Durham, NC 27710.** *Duke University is an Equal Opportunity Employer.*

POSITIONS OPEN

MOLECULAR BIOLOGIST

PERMANENT AND POSTDOCTORAL positions available to join group engaged in studies on gene regulation and biosynthesis of the early-acting complement system proteins. Research projects will investigate mechanisms of gene expression, protein processing, and macromolecular structure-function relationships using site-directed mutagenesis. Candidates for permanent position should be well versed in recombinant DNA technology. Please forward curriculum vitae to: **Dr. John E. Mole, Department of Biochemistry, University of Massachusetts Medical Center, Worcester, MA 01605.**

ORNITHOLOGIST

The Academy of Natural Sciences of Philadelphia seeks an outstanding ornithologist for the career track position, Assistant/Associate Curator of Ornithology. Qualifications: (i) Ph.D. in biology or related discipline; (ii) demonstrated research skills in systematics or evolutionary biology; (iii) ability to establish and carry out independent research program; (iv) willingness to share curatorial responsibilities for collections in ornithology; and (v) ability to attract grant support for research program. Candidates doing research on the evolution or systematics of birds will be of particular interest. This position includes opportunities for adjunct appointment and graduate students at the University of Pennsylvania.

Send curriculum vitae letter summarizing research interests, reprints, and names and addresses of three references no later than 23 February 1987 to: **Ornithology Search Committee, c/o J. Wheeler, The Academy of Natural Sciences of Philadelphia, 19th and the Parkway, Philadelphia, PA 19103.**

The Academy of Natural Sciences is an Equal Opportunity/Affirmative Action Employer.

Ph.D. BIOCHEMIST WITH NMR SPECTROSCOPY EXPERIENCE—Position heading basic science research section (MRS) in Diagnostic Radiology Department of a 490-bed teaching hospital affiliated with Harvard Medical School. Prefer broad experience in molecular biology. Send curriculum vitae and references to: **Melvin E. Clouse, M.D., Chairman, Department of Radiology, New England Deaconess Hospital, 185 Pilgrim Road, Boston, MA 02215.**

PLANT BIOLOGIST—The Department of Biological Sciences at Butler University has a tenure-track position (assistant professor) available for a nonvascular plant biologist starting in fall 1987. Ph.D. required. The successful candidate will be expected to teach courses in nonvascular plants, plant physiology and to participate in introductory biology courses for majors and nonmajors. The candidate will also be expected to maintain a research program involving undergraduates. Applicants should submit curriculum vitae containing a list of publications, the names and addresses of three references and a cover letter outlining teaching and research interests to:

Dr. Michael S. Maloney
Chairman, Search Committee
Department of Biological Sciences
Butler University
Indianapolis, IN 46208

Deadline for applications is 30 January 1987. *Butler University is an Equal Opportunity/Affirmative Action Employer.*

The Department of Botany, Iowa State University, invites applications for a tenure-track position at the assistant or associate professor level. This position for a PLANT SYSTEMATIST begins on 21 August 1987. Development of a strong research program and participation in the Department's Graduate Program are expected. Teaching responsibilities will include a graduate course in the area of the successful applicant's specialty, and participation in undergraduate instruction. Applicants must have a Ph.D. Curriculum vitae, statement of research and teaching interests, copies of publications, and letters from at least three references should be sent to: **Dr. R. C. Coolbaugh, Chair, Department of Botany, Iowa State University, Ames, IA 50011,** by 13 February 1987.

Iowa State University is an Equal Opportunity Employer. Women, minorities, and members of other protected groups are urged to apply.

BIOCHEMIST M.S., Ph.D.

Merck Sharp & Dohme Research Laboratories is a recognized leader in worldwide therapeutic research. Currently, we have an excellent career opportunity for an M.S. or Ph.D. Biochemist in our Department of Biological Chemistry.

This position primarily involves the characterization and purification of membrane proteins, including hormone receptors. Interested candidates should have one to two years of experience in the characterization of hormone receptors and the techniques involved in the purification of integral membrane proteins, including detergent solubilization, gel column chromatography and affinity chromatography.

We offer excellent salary and benefits programs. Our laboratories are modern, spacious and located in a suburban setting 25 miles northwest of Philadelphia.

If interested please send your resume, three professional references whom we may contact, and salary requirements to:

Manager, Personnel Relations

MERCK SHARP & DOHME RESEARCH LABORATORIES

West Point, PA 19486

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Merck & Co., Inc.

CANADA

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

DEAN OF MEDICINE

Applications are invited for the position of Dean, Faculty of Medicine, Memorial University of Newfoundland.

The Faculty of Medicine is housed in the Health Sciences Centre on the University campus. Also included in the centre are the Schools of Nursing and Pharmacy as well as the General Hospital.

The successful applicant will assume a major leadership role in the non-departmental organizational structure of the Medical School, and should have substantial experience in teaching, research and academic administration.

This invitation is directed, in the first instance, to Canadian citizens and landed immigrants in accordance with Canadian immigration requirements. Letters of application with full curriculum vitae should be directed, as soon as possible, but not later than March 1, 1987 to: **Dr. I.E. RUSTED, VICE-PRESIDENT (HEALTH SCIENCES AND PROFESSIONAL SCHOOLS), MEMORIAL UNIVERSITY OF NEWFOUNDLAND, ST. JOHN'S, NEWFOUNDLAND A1B 3V6.**

NATIONAL SCIENCE FOUNDATION (NSF)

NSF's *Divisions of Cellular and Molecular Biosciences* are seeking qualified applicants for several positions under the provisions of NSF's Rotator Program, Intergovernmental Personnel Act or temporary appointments. In Cellular Biosciences, the openings include: (1) Program Director, Cell Biology; (2) Program Director, Developmental Biology; (3) Assistant/Associate Program Director, Eukaryotic Genetics. In Molecular Biosciences, the openings are: (1) Program Director, Biochemistry; (2) Program Director, Metabolic Biology; (3) Assistant/Associate Program Director, Prokaryotic Genetics; (4) Assistant/Associate Program Director, Biological Instrumentation. Applicants should have a Ph.D. and at least six years of independent research experience. The per annum salary ranges from \$35,000-\$70,000 (currently limited by statute to \$68,700) depending upon the level of responsibility. Since responsibilities include research proposal evaluation, budget development and scientific planning, broad knowledge and specific research accomplishment are key experiential factors. These positions become available periodically and are filled on a one-to two-year rotational or temporary basis, beginning in the fall, 1987.

Applicants should send resumes indicating current salary to: National Science Foundation, Personnel Administration Branch, Room 208, 1800 G Street NW, Washington, DC 20550, Attn: Catherine Handle. For further information, call Dr. Bruce L. Umminger, Cellular Biosciences (202) 357-7905 or Dr. James H. Brown, Molecular Biosciences (202) 357-9400. Hearing impaired individuals should call 202/357-7492. NSF is an Equal Opportunity Employer.

NIOSH ANNOUNCES RESEARCH AWARDS



FOR Ph.D. & M.D. SCIENTISTS

The National Institute for Occupational Safety and Health announces outstanding opportunities for research in:

- applied psychology
- bioacoustics
- ergonomics
- health physics
- epidemiology

The National Research Council in cooperation with the National Institute for Occupational Safety and Health, Division of Behavioral and Biomedical Research in Cincinnati, Ohio will offer competitive research awards in 1987 for independent scientific research. Recipients will be free to work on problems of their own choice as guest investigators at NIOSH. This program is open to experienced senior scientists as well as to recent PhD and MD graduates. Stipends begin at \$26,350 for recent graduates and are appropriately higher for seniors. Relocation reimbursement and funds for professional travel on tenure are available, and a health insurance program is offered.

For further information and application materials please write to:

Associateship Programs (JH608/NI-2)

National Research Council

2101 Constitution Avenue, N.W.

Washington, D.C. 20418

Deadlines for application are
January 15, April 15 and August 15.

POSITIONS OPEN

Ph.D. RESEARCH SCIENTIST: Individual will direct molecular biology laboratory in a large collaborative study of cell ploidy. The prospective investigator will join a multicenter research group using nucleic acid hybridization techniques, protein biochemistry, and digital image analysis to investigate the causes, mechanisms, and significance of changes in cell ploidy in neoplasia and vascular disease. The successful candidate will show a sustained record in refereed journals and be eligible for a faculty appointment. Send résumé to: **Dr. I. Goldberg, Chairman, Department of Radiation Oncology, Long Island Jewish Medical Center, New Hyde Park, NY 11042. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately to study biochemistry/molecular biology of androgen action in eukaryotic cells. Candidates should have a Ph.D., M.D., or equivalent. Experience and training in protein chemistry and molecular biology are preferred. Starting salary is dependent upon the qualifications of the individual. Send curriculum vitae and the names of three references to: **Dr. Olli A. Janne, The Population Council, 1230 York Avenue, New York, NY 10021.**

POSTDOCTORAL POSITION available to begin anytime between January and September 1987 in laboratory studying human molecular genetics. The principal research focus is the biology of mammalian sex chromosomes. Control of gene expression via X chromosome inactivation, as well as X and Y chromosome homology, pairing and recombination are being studied along with the mechanisms of several inherited diseases. Extensive use is made of somatic cell genetics, molecular methods, and clinically derived chromosome rearrangements. A recent Ph.D. degree with experience in cloning and sequencing methods is required. Send curriculum vitae with the names of three references to: **Larry J. Shapiro, M.D., Professor of Pediatrics and Biological Chemistry, UCLA School of Medicine, Division of Medical Genetics, 1000 West Carson Street, Torrance, CA 90509.**

POSTDOCTORAL POSITION available immediately for isolation and characterization of new metalloproteins from the sipunculan erythrocyte, especially those involved in iron metabolism and electron transfer reactions. Persons with experience in either protein purification techniques or physical characterization (e.g., EPR, NMR, fast kinetics) of metal sites in proteins are preferred. Send résumé and names of two references to: **Professor Donald M. Kurtz, Jr., Department of Chemistry, University of Georgia, Athens, GA 30602. The University of Georgia is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS available immediately in the Hematology/Oncology Unit (LSU), Medical Center for biochemists and/or cell biologists to study coated vesicle formation and receptor mediated endocytosis in erythroid and leukemic cells, including control of transmembrane iron and heme transport, phosphatidyl inositol turnover and protein kinases as well as molecular biology of iron transport proteins.

Interested applicants should send curriculum vitae and three letters of recommendation to: **Dr. Jonathan Glass, Louisiana State University Medical Center—Shreveport, Department of Medicine, Section of Hematology/Oncology, P.O. Box 33932, Shreveport, LA 71130-3932.**

Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE—three years on NIEHS-funded project to study temperature effects on xenobiotic metabolism by fish hepatocytes, available 1 February 1987. Background in toxicology and HPLC experience are assets. Send curriculum vitae, names (addresses and phone numbers) of references to: **Patrick J. Walsh, Biology and Living Resources, Rosenstiel School of Marine and Atmospheric Science, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149.**

POSTDOCTORAL POSITION—RETINAL PHYSIOLOGY. Available 1 March 1987 to study transmitter receptors in isolated retinal ganglion cells using patch clamp. Salary is \$22,000 plus full health plan. Write: **Gordon L. Fain, Professor and Associate Director, Jules Stein Eye Institute, University of California, Los Angeles (UCLA), School of Medicine, Los Angeles, CA 90024.**

POSITIONS OPEN

POSTDOCTORAL POSITION UNIVERSITY OF TEXAS SYSTEM CANCER CENTER M.D. ANDERSON HOSPITAL AND TUMOR INSTITUTE

A 3-year, NIH-funded postdoctoral position is available immediately to study the molecular basis of cellular interactions during mammalian fertilization and embryonic development (see: *J. Cell Biol.*, **101**, 1501-1510; **102**, 432-441). Candidates should have some background in either molecular biology, protein chemistry or cell/developmental biology.

The M.D. Anderson Hospital and Tumor Institute is located in the Texas Medical Center, adjacent to Baylor College of Medicine, The University of Texas Medical School at Houston, and Rice University.

Send curriculum vitae and the names of three references to:

**Dr. Barry D. Shur
Department of Biochemistry and Molecular Biology
M.D. Anderson Hospital and Tumor Institute
1515 Holcombe Boulevard, Box 117
Houston, TX 77030**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITIONS

Immediate openings to join a research program investigating hormone-receptor-G protein mediated transmembrane signaling in cardiac and vascular tissue with an emphasis on the effects of angiotensin peptides. A candidate should have a Ph.D. or M.D. The Weis Center for Research in Cardiovascular Disease is a new and developing program under the leadership of **Howard E. Morgan, M.D.**

Salary commensurate with NIH guideline. Send curriculum vitae and three references to: **Kenneth M. Baker, M.D., Weis Center for Research, (26-00) Geisinger Clinic, Danville, PA 17822. Equal Opportunity Employer. M/F/H/V.**

POSTDOCTORAL POSITION IN NEUROSCIENCE/CELLULAR BIOCHEMISTRY—Available immediately to participate in studies on the control of nervous tissue regeneration by extracellular proteases/protease inhibitors. The studies involve biochemical manipulation and cell transplantation in PNS and CNS regenerating model systems, utilizing neurosurgical, biochemical, cell culture and histological techniques. Superb manual dexterity required. Applications, curriculum vitae and names of references, should be sent to: **Dr. Nurit Kalderon, The Rockefeller University, 1230 York Avenue, New York, NY 10021.**

TRAINING OPPORTUNITY Immediate Opening

Postdoctoral position supported through NIH training grant stipend available immediately for qualified M.D., or Ph.D. with primary interest in transplantation immunobiology (islet cells) and autoimmune endocrine diseases, with an emphasis on diabetes.

Multidisciplinary research training is available in the departments of medicine, immunobiology, and surgery. Contact: **Daniel H. Mintz, M.D., Program Director, University of Miami School of Medicine, Division of Endocrinology (R-134), P.O. Box 016960, Miami, FL 33101; telephone: 305-547-6657, for further information. Curriculum vitae and three letters of recommendation are required.**

POSTDOCTORAL RESEARCH ASSOCIATE

Position open immediately for research on molecular basis of mutagenesis and gene regulation in mammalian cells, involving shuttle vectors, somatic cell genetics, DNA sequencing, etc. Candidates should have a Ph.D. in biochemistry, genetics, molecular or cellular biology and research experience with recombinant DNA technology. For fullest consideration, applications should be received by 1 February 1987. Submit curriculum vitae and names of three references to: **Dr. Richard Davidson, Center for Genetics, University of Illinois College of Medicine at Chicago, 808 South Wood Street, Chicago, IL 60612. The University is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN TUMOR BIOLOGY

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

POSTDOCTORAL POSITION: NUTRITION AND LIPID METABOLISM. Available immediately, studies on the effects of dietary fats, especially fish oils, on plasma lipoprotein metabolism. Applicant should be familiar with GLC, ultracentrifugation and general biochemistry laboratory skills. Send curriculum vitae and three references to: **Dr. William S. Harris, Clinical Pharmacology, 3800 Cambridge, University of Kansas Medical Center, Kansas City, KS 66103. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION available for research on the biochemical basis for T lymphocyte dysfunction in aging, and after bone marrow transplantation. Experience desirable in one or more of the following areas: cellular immunology; intracellular messengers; analysis of gene expression. Submit curriculum vitae with names of three references to: **Richard A. Miller, Department of Pathology, Boston University Medical School, 80 East Concord Street, Boston, MA 02118. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately to investigate the molecular mechanism of metal ion-induced carcinogenicity/toxicity. Research is focused on the alteration of specific protein: DNA interactions in response to nickel and chromium. Ph.D. in molecular biology/biochemistry and related experience required. Send curriculum vitae and three letters of reference to: **Dr. Richard J. Imbra or to Dr. Max Costa, Department of Environmental Medicine, New York University Medical Center, 550 First Avenue, New York, NY 10016. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately to study the hormonal regulation of steroidogenic cytochrome P-450 system in human trophoblast and ovarian cells. Experience in molecular biology or protein characterization required. Salary \$15,000 to \$17,000. Send résumé and names of three references to: **Dr. F. Bellino, Department of Biological Sciences, State University of New York at Buffalo, Buffalo, NY 14260. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available to work on cloning human DNA repair genes and purify DNA repair enzymes from various species. Experience in recombinant DNA and/or enzymology is essential. Send applications to: **Dr. Aziz Sancar, Department of Biochemistry, University of North Carolina, Chapel Hill, NC 27514. Equal Opportunity/Affirmative Action Employer.**

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

POSTDOCTORAL POSITION available immediately for investigations on the mechanism of regulation of actomyosin ATPase of striated and smooth muscle and mechanisms in cell motility. Send curriculum vitae and references to:

**Dr. E. W. Taylor
Department of Molecular Genetics and Cell Biology
University of Chicago
920 East 58 Street
Chicago, IL 60637**



American Red Cross

BIOMEDICAL RESEARCH + DEVELOPMENT

HEAD

PLASMA DERIVATIVES LABORATORY

A major opportunity exists to lead a program that is developing new ways to purify plasma proteins for diagnostic and therapeutic uses. The individual will be responsible for the design, implementation, coordination and evaluation of ongoing and new efforts to make products available by the optimal fractionation of Red Cross plasma. The individual should have an M.D. or Ph.D., at least 5 years of experience as leader of a research or development group and a record of distinguished scientific achievement. The experience must include plasma protein research, especially in protein separation methods. Experience in large scale protein fractionation is desirable. Management expertise is essential as the individual is responsible for coordination of complex and interrelated projects, including scale-up efforts that are carried out in a pilot plant in Glendale, California.

Indications of interest, including a resume, bibliography, and the names and addresses of at least 3 references, should be sent to:

Leon W. Hoyer, M.D.
Holland Laboratory
15601 Crabbs Branch Way
Rockville, MD 20855

Opportunities In Biopharmaceutical Research And Development

Biopharmaceutical Research and Development at Smith Kline & French Laboratories is a young enterprise focused on development of novel protein drugs as well as the use of proteins as targets in the discovery of low molecular weight drugs. Two of its newer departments, Macromolecular Sciences and Protein Biochemistry are seeking outstanding scientists with expertise in structural and functional analysis of proteins as well as in protein isolation and characterization.

Scientists with particular expertise in any of the following protein specialties are being sought.

- membrane-bound proteins
- receptors
- growth factors/effector molecules
- large-scale protein isolation
- fibrinolytic enzymes
- automation of purification methods
- protein engineering
- chemical modification of proteins

A variety of challenging positions for bench scientists and scientist/managers are available. Candidates for scientific managerial positions must possess a strong record of scientific achievement as well as distinct leadership skills and potential. Prior experience in drug discovery and development is desirable but not a must. SmithKline is committed to scientific excellence and we encourage staff to publish, hold adjunct academic posts, and to interact fully with the scientific community.

Smith Kline & French Laboratories is located in a new, state-of-the-art research facility near Valley Forge, Pennsylvania. We offer an excellent salary, benefits, and relocation package as well as opportunities for personal and professional growth. Please forward your C.V. and names of three references to Robert F. Obst, R&D Employment Consultant, SmithKline Beckman Corporation, 1596 Spring Garden Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.

SK&F

A SmithKline Beckman Company

Applications are invited for a post of RESEARCH ASSOCIATE (Epidemiology/Biostatistics) in the Unit of Descriptive Epidemiology (DEP) at the International Agency for Research on Cancer, Lyon, France.

The IARC is the cancer research organisation of the World Health Organization and conducts a broad range of studies in the fields of cancer cause and prevention. There are a large number of epidemiological projects in collaboration with investigators throughout the world, and an extensive experimental programme. The Unit of DEP is primarily concerned with monitoring and surveillance of cancer incidence and mortality worldwide, both for developing aetiological hypotheses, and for the planning and evaluation of cancer control measures. The successful applicant will be expected to assist in the analysis of ongoing projects and in the design of new studies of trends and differentials in cancer incidence and mortality, involving an international network of collaborating centres. He/she will be expected to assist in the development of new fields of research within the framework of the unit's overall programme.

The applicants should have a degree in applied statistics or epidemiology or the equivalent. Qualification at the Master level is desirable and a doctorate degree would be an advantage. Applicants are expected to have had at least 1-2 years post-graduate experience in the field of biostatistics applied to medicine preferably in research in epidemiology of non-communicable disease. Personal expertise in computing is essential.

Annual salary level in US\$ 21 261 plus a post adjustment element which is currently US\$ 7 169 for a staff member without dependents and US\$ 22 675 plus a post adjustment of US\$ 7 645 for a staff member with dependents. Salaries are net of tax.

A recruitment is expected in mid 1987 for an initial period of 2 years with possibility of renewal. Those interested should write enclosing a curriculum vitae to:

PERSONNEL OFFICE
IARC
150 COURS ALBERT THOMAS
69372 LYON CEDEX 08
FRANCE

The Agency will only contact and send further particulars and application forms to candidates considered suitable for this post.

COMPUTATIONAL CHEMIST (Ph.D.)

The Pharmaceutical Research and Development Division of The Upjohn Company has an opening in its Computational Chemistry unit for the application of computer-based theoretical methods to the study of protein structure and function.

The successful candidate will have a Ph.D. in chemistry, biochemistry, biophysics or related science and a strong research background in the study of protein structure and properties, with a demonstrated publication record. Particular areas of expertise may include the prediction of secondary and tertiary structure, the study of ligand-protein interactions, the study of protein folding and the design of new or modified proteins with specified properties. Experience in statistical mechanics, dynamics, or molecular graphics, as applied to proteins, is also highly desirable. In addition to continuing work in the candidate's area of expertise, the work will also include participation in collaborative projects with biotechnology and therapeutics research units; and development, implementation, and application of new computer-based methods and procedures designed to enhance the macromolecular modeling capability currently being developed.

The Computational Chemistry unit is a multidisciplinary group of scientists involved in studies covering a broad area including molecular modeling of small and macromolecular systems, development and application of structure-activity relationships, and scientific database management. Excellent computer and graphics facilities are available in support of all computational chemical studies.

Kalamazoo is a mid-sized Southwestern Michigan community offering an excellent mix of cultural/recreational opportunities including lakes, nearby colleges, and a four-season climate. The Upjohn Company offers an excellent salary, benefits, and relocation plan.

For confidential consideration, please call from outside of Michigan toll free 1-800-253-8600 extension 3-6767, or inside Michigan collect (616) 323-6767 to request a specialized employment application be sent to you immediately. Please refer to Ad Number 20264B when calling.



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POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATES—

Two positions available 1 May 1987: (i) cloning, sequencing, expression of **membrane** morphogenesis, (ii) lipid-protein lens **gap junctions** in model membranes. Salary \$16,500 to \$19,800 per year. Résumés by 1 March 1987 to: **Dr. Gregory Brewer, P.O. Box 3926, Springfield, IL 62708. Southern Illinois University is an Equal Employment Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE position is available immediately to work on the development and application of NMR spectroscopy to oncology research and the clinical management of cancer. NMR equipment used in these studies includes a Bruker 4.7T/30-cm (animal) spectroscopy/imaging spectrometer, a Siemens 2.0-T/1-m (whole body) spectroscopy/imaging spectrometer, and a GE 7.0-T/8.9-cm (GN300) spectrometer. Applicants should have a strong background in either nonroutine NMR or tumor (cellular) biology. Send a résumé and names of three references to: **Dr. Jeffrey L. Evelhoch; Division of Hematology/Oncology, Department of Internal Medicine, Wayne State University, P.O. Box 02188; Detroit, MI 48201. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION. A position will be available in July 1987 to apply molecular genetics to study the physiology and biochemistry of methanogenic archaeobacteria. Research areas include transcriptional regulation of the formate dehydrogenase operon, structure-function of formate dehydrogenase and hydrogenase, and diauxic in methylo-trophic-acetotrophic methanogens. A Ph.D. emphasizing molecular genetics is preferred, although productive biochemists or microbial physiologists will be strongly considered. Starting salary will be \$18,000 to \$21,000 depending on qualifications and experience. Closing date for applications will be 31 March 1987. Send letter of interest, curriculum vitae and the names of five referees to: **Dr. James G. Ferry, Department of Anaerobic Microbiology, Virginia Polytechnic Institute (VPI) and State University (SU), Blacksburg, VA 24061. VPI and SU is an Affirmative Action, Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE positions (2) available to study the interactions of free radicals with the membrane phospholipids in myocardial ischemic-reperfusion injury. Interested applicants should send curriculum vitae, statement of research interests, and names of three individuals willing to write letters of recommendation to: **Dr. Dipak K. Das, Director of Cardiovascular Laboratories, University of Connecticut School of Medicine, Farmington, CT 06032. An Affirmative Action/Equal Opportunity Employer M/W/H**

POSTDOCTORAL RESEARCHER position to study regulation of I-A expression by macrophages that is controlled by the *Bcg* gene. Experience in molecular biology, biochemistry of cellular immunology preferred. Submit curriculum vitae and three letters of recommendation to: **Dr. Bruce S. Zwilling, Department of Microbiology, The Ohio State University, 484 West 12th Avenue, Columbus, OH 43210. The Ohio State University is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCHERS. The Department of Physiology, University of California, Irvine, is developing a postdoctoral candidate pool for possible openings during the 1986–1987 fiscal year. Openings may be available in the following research areas: ion channels in lipid bilayers, physical chemistry of membranes, mechanism and regulation of steroid hormone biosynthesis, exercise physiology; in situ electrophoresis of membrane proteins molecular properties of ion channels in excitable cell membranes. Salary is in accordance with current NIH, NSF postdoctoral stipends which are based upon qualifications and years of prior, relevant postdoctoral experience. Send curriculum vitae and names of three references to: **Professor Stephen H. White, Chairman, Department of Physiology, University of California, Irvine, CA 92717. Minorities and women are encouraged to apply.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately for recent Ph.D. graduate with background in histology and ultrastructure to participate in investigations of malignant hyperthermia. Candidates should have training and proficiency in use of transmission electron microscopy and immunocytochemistry to assess cell/tissue structure and function. Salary commensurate with education and experience. Applicants should reply with curriculum vitae and three letters of recommendation by 15 February 1987 to: **Dennis F. Landers, M.D., Ph.D., Department of Anesthesiology, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, NE 68105. An Equal Opportunity/Affirmative Action Employer.**

The California Space Institute of Scripps Institution of Oceanography (SIO) invites applications for postgraduate (postdoctoral) researchers in the area of developing programs in telerobotics and image processing applicable to space operations and oceanography. The applicants must have relevant Ph.D.'s or equivalent degrees. Experience in image processing and/or robotics. Salary range is \$24,972 to \$27,360, commensurate with experience. Applicants should submit résumé including names and addresses of at least three references to: **Dr. James Arnold, California Space Institute, A-021, La Jolla, CA 92093, by 23 January 1987. The University of California at San Diego is an Equal Opportunity/Affirmative Action Employer.**

PROFESSOR AND DEPARTMENT HEAD DEPARTMENT OF BIOCHEMISTRY AND BIOPHYSICS TEXAS A&M UNIVERSITY

Applications and nominations are invited for the position of Professor and Head of the Department of Biochemistry and Biophysics at Texas A&M University. In addition to leadership and administrative abilities, candidates must have a distinguished, nationally recognized research program in biochemistry and/or molecular biology. The department, part of both the College of Agriculture and the Texas Agricultural Experiment Station, consists of 27 faculty, 84 graduate students (66 Ph.D. students) and 400 undergraduate majors. Shortly, the department will also be responsible for a new undergraduate major in genetics. Faculty research programs are well-supported by extramural grants. The department has been designated for continued growth and development. A new 90,000 assignable square foot building will be ready for occupancy by mid-1989. The position is currently available and applications will be accepted until the position is filled. Review of applications will begin 1 February 1987. Send a curriculum vitae and the names of at least three references to:

**Department Head Search Committee
Department of Biochemistry and Biophysics
Texas A&M University
College Station, TX 77843-2128
Texas A&M University System is an Affirmative Action/
Equal Opportunity Employer.**

PROTEIN BIOPHYSICS: Research associate immediately join to study conformation, structure-function relationship and hydrophobic/philic domains related to the biological activities of a protein [see *Fed. Proc.* 45, 1793 (1986)] using CD, UV difference spectra, fluorescence and binding of ligands, e.g., fluorogenic dyes, nonionic detergents and gangliosides. Write, with names of three references, to: **B. R. DasGupta, University of Wisconsin, 1925 Willow Drive, Madison, WI 53706.**

DEPARTMENT OF ZOOLOGY UNIVERSITY OF TENNESSEE, KNOXVILLE

QUANTITATIVE GENETICIST. Tenure-track position at the Assistant Professor level, starting 1 September 1987. Candidates must be engaged in modern applications of quantitative genetic techniques; those involved in research in behavioral genetics are particularly encouraged to apply. Postdoctoral experience is expected. The successful candidate also will be expected to maintain a record of significant research and teaching accomplishments and to interact with a faculty with diverse, interdisciplinary research interests. Submit a curriculum vitae, description of research activities, and have at least three letters of reference sent by 15 February 1987 to: **Dr. Gary F. McCracken, Genetics Search Committee, Department of Zoology, University of Tennessee, Knoxville, TN 37996-0810. The University of Tennessee is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH POSITION available to study a novel system of regulation of gene expression and DNA replication by silicon in the diatom, by analysis of gene banks previously constructed in this laboratory [*Arch. Microbiol.* 137, 291 (1984); *J. Gen. Microbiol.* 131, 1735 (1985)]. Cloned yeast genes have been used successfully to identify diatom genes of similar function in the banks and at least one yeast mutation *leu 2⁻* has been complemented using cloned diatom DNA sequences. Background in molecular biology. Proficiency in recombinant DNA techniques: cDNA cloning, analysis of gene banks, vector construction, Southern and Northern hybridization, transformation, analysis of regulatory sequences, DNA sequencing. Salary starting at \$21,948 to \$27,360, depending on qualifications. Send complete curriculum vitae, reprints, and three letters of reference to: **Dr. B. E. Volcani, Scripps Institution of Oceanography, University of California, La Jolla, CA 92093; telephone: 619-534-2194. Applications will be accepted until positions are filled. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH POSITION available for neurochemist/neuropharmacologist to study underlying biochemical mechanisms responsible for the neuronal cell death caused by the dopaminergic neurotoxin MPTP and by amino acid-like excitotoxins such as kainic acid. Possibility exists for interdisciplinary research in other disciplines. Applicant should have a good foundation in the biochemistry and/or pharmacology of the central nervous system. Send curriculum vitae, statement of research interests and career goals and names of three references to either: **Richard E. Heikkila, Ph.D., or William J. Wicklas, Ph.D., Department of Neurology, University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635. An Equal Opportunity/Affirmative Action Employer. M/F/H/V.**

Postdoctoral Research and Training Opportunities are available at the CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY

The Chemical Industry Institute of Toxicology (CIIT) offers a 2-year postdoctoral research training program in toxicology for individuals who have recently earned a D.V.M., M.D., Ph.D. or other advanced degree in an academic discipline related to toxicology. Research programs stress elucidation of basic mechanisms of toxicity and often employ a multidisciplinary approach. Areas of interest include mutation and chemical carcinogenesis, pharmacokinetics and metabolism, teratogenicity, development of in vitro tests for toxicity, cell biology, immunotoxicity, reproductive system toxicity, inhalation toxicology, epidemiology, biostatistics, and quantitative risk assessment. For more information, contact:

**Coordinator of Training
Chemical Industry Institute of Toxicology
P.O. Box 12137
Research Triangle Park, NC 27709
An Equal Opportunity/Affirmative Action
Employer.**

TWO POSTDOCTORAL RESEARCH POSITIONS available immediately for studies on the neuroendocrinology of development in the gypsy moth, *Drosophila*, and mosquitoes:

- (i) **Biochemist**—purification and mode of action of peptide neurohormones;
- (ii) **Molecular Biologist**—characterization of neurohormone genes and their regulation.

Send résumé and three letters of recommendation to: **Drs. Edward P. Masler/Thomas J. Kelly, Insect Reproduction Laboratory, USDA-ARS, BARC-E, B-306, R-323, Beltsville, MD 20705. Applications must be marked 7EO12. An Equal Employment Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

Available immediately in the field of cell-mediated immunity. Research involves in vitro studies of granuloma formation and the role of leukocytes in chronic inflammation. This position requires one semester of teaching per year in histology/cell biology. Send résumé and three references to: **Dr. Eva Cramer, Department of Anatomy and Cell Biology, SUNY Health Science Center at Brooklyn, 450 Clarkson Avenue, Brooklyn, NY 11203. Equal Opportunity/Affirmative Action Employer, DMC #C-0042.**

POSITIONS OPEN

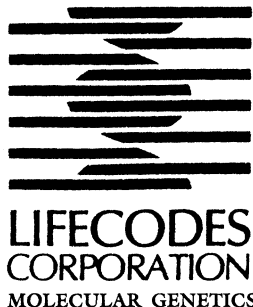
Research Instructor: Ph.D. in Biochemistry or Pharmacology. Three to 5 years of basic laboratory research such as protein purification and enzyme kinetics. Tissue culture experience helpful, and working with radioisotopes is essential. Send curriculum vitae, cover letter, and letter of reference to: **Barton Kamen, M.D., Ph.D., Department of Pediatrics, The University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9063.** Position available 1 December 1986.

U.S. DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE (ARS)

Research Chemist, U.S. Dairy Forage Research Center, Madison, Wisconsin. ARS is seeking a scientist to conduct research on chemistry of the plant cell wall as it affects utilization of the lignocellulosic portion of forages by dairy cows. The assignment is in collaboration with other Center scientists, especially plant physiologists and ruminant nutritionists.

Ph.D. in chemistry or closely related field desired. Knowledge of analytical chemistry and biochemistry required. Candidates must be U.S. citizens. Salary is commensurate with experience (\$26,831 to \$37,599). For information on the research program and/or position, contact: **Dr. Charles Kiddy at 608-263-2030.** For information on application procedures/forms, contact: **Janie Carr at 301-344-2756.** Applications in response to this announcement should be marked 6N019.

Applications must be received by 16 January 1987. Mailing Address: **USDA, Agricultural Research Service, Personnel Operations Branch, North Central Section, Room 123, Building 003, BARC-W, Beltsville, MD 20705.** *An Equal Opportunity Employer.*



Lifecodes Corporation has a **Research Scientist** position for a recent Ph.D. with demonstrated expertise in the area of recombinant DNA. We seek an imaginative and highly motivated individual who can carry out independent research as part of a multidisciplinary team working on the development of DNA probes for human genetic diagnostics.

Lifecodes Corporation which has successfully commercialized the use of recombinant DNA probes for human genetics is undergoing a major expansion. We are located in Westchester County, 30 minutes from New York City and have excellent research facilities, equipment and financial support.

Send curriculum vitae and the name and telephone number of three references to:

**Dr. Ivan Balazs
Personnel Department
Lifecodes Corporation
4 Westchester Plaza
Elmsford, NY 10523**

RESEARCH TECHNICIAN position available immediately in transmission electron microscopy. Applicant must have experience in EM procedures and interest in pursuing EM as a career. Salary is negotiable. Send curriculum vitae to: **Dr. Betty Ruth Jones, Department of Biology, Morehouse College, Atlanta, GA 30314.**

SCIENTIST AND RESEARCH ASSOCIATES

Genentech, Inc., is a research and development company which is utilizing state-of-the-art technology to produce pharmaceutical products for the prevention and treatment of a variety of human diseases. We currently have several positions open at the Scientist and Research Associate levels.

BONE PHYSIOLOGY AND METABOLISM — SCIENTIST:

This position is part of an interdisciplinary research group which includes molecular biologists and protein biochemists who will study bone physiology and metabolism. The successful candidate will have a minimum of 2 years postdoctoral experience including initiation and active participation in bone metabolism research and cell biology. Expertise in bone factor assays is desirable. (#OSW7)

BONE PHYSIOLOGY AND METABOLISM — RESEARCH ASSOCIATE:

This position will also be part of the interdisciplinary research group to study bone physiology and metabolism. The successful candidate will have a Bachelor's or Master's degree in a relevant scientific field and some hands-on experience in bone cell biology and metabolism. The individual selected will perform bone related assays under the direction of the research scientist. (#OSW8)

ENDOCRINOLOGY — RESEARCH ASSOCIATE:

This position will report to the endocrinology group in pharmacological sciences where the current interest involves assessing the mechanism of and new applications for human growth hormone and other endocrine related products. The successful candidate will have a Master's degree in a relevant scientific field and will collaborate with Genentech scientists. Relevant fields of expertise can include mammalian endocrine physiology at the level of the cell, organ or organism as well as the biochemistry of hormone receptors and intracellular transducing systems. (#OSW9)

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



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POSITIONS OPEN

A nontenure position at the level of **RESEARCH ASSISTANT PROFESSOR** is available in the **Thrombosis Research Center** for an individual with a Ph.D. in biochemistry or related field. Experience in protein chemistry is required and specific experience in the purification and characterization of coagulation proteins and the production and utilization of monoclonal antibodies is desirable. Research projects will involve structure-function studies of coagulation proteins and their interactions with platelets. Qualified applicants should send curriculum vitae, detailed statement of accomplishments and research interests, and names and addresses of three references to: **Dr. Peter N. Walsh, Thrombosis Research Center, Temple University School of Medicine, 3401 North Broad Street, Philadelphia, PA 19140. Equal Opportunity, Affirmative Action Employer.**

RESEARCH ASSISTANT PROFESSOR AND RESEARCH ASSOCIATE

Multidisciplinary diabetes research laboratory has **two positions available**, one a **faculty level appointment** to work in an islet cell transplantation research program. Applicants should have expertise in cell separation procedures and tissue culture. Immunology background and thorough understanding of cryopreservation methodology is highly desirable. Islet isolation from human pancreas donors requires that candidates should anticipate night and weekend work. The focus of the research effort will be to obtain high yields of purified mammalian islets for human transplantation and in vitro studies of islet immunogenicity. Send curriculum vitae and three letters of recommendation to: **Daniel H. Mintz, M.D., Department of Medicine (R-134), University of Miami School of Medicine, P.O. Box 016960, Miami, FL 33101.**

SURGICAL RESEARCH ASSOCIATE

Position available for research associate experienced in dog abdominal surgery and the conduct of research protocols in dogs and rodents, to work in an islet transplantation research program. Individual will also participate in human pancreas organ retrievals from centers throughout the southeastern U.S., requiring acquisition of specialized skills in hypothermic preservation of pancreases. Send curriculum vitae, and three letters of recommendation (if available) to: **Daniel H. Mintz, M.D., Department of Medicine (R-134), University of Miami School of Medicine, P.O. Box 016960, Miami, FL 33101.**

RESEARCH ASSOCIATE

Because of an expansion of our Division of Gastroenterology, an opportunity exists for a **research associate** to join **Winthrop-University Hospital**, a major teaching affiliate of Stony Brook, as director of Gastrointestinal Research. The successful candidate will have a Ph.D. in physiology or pharmacology, preferably with 2 years of postdoctoral research experience in studying motility of the gastrointestinal tract with in vitro and in vivo techniques. This is a hospital based position with research funds provided. We offer a professional work environment, salary commensurate with experience, and a competitive benefit package. Interested candidates should submit curriculum vitae and names of two references to: **Robert Burakoff, M.D., Chief, Gastroenterology Division, Winthrop-University Hospital, 259 First Street, Mineola, Long Island, NY 11501.**

RESEARCH ASSOCIATE

The American Red Cross is seeking an individual for a research position directed at an in vitro investigation of platelet production. Research experience required with degree(s) in the physical/biological sciences. Experience with tissue culture preparation and/or isolated cells desired. Ability to communicate and interact with other members of the research team is essential. The work will be carried out at the American Red Cross Biomedical Laboratory in Rockville, MD, and at the Veterans Administration Hospital in Washington, DC. Send résumé and salary requirements to:

Dr. Robert R. Stromberg
American Red Cross
9312 Old Georgetown Road
Bethesda, MD 20814
An Equal Opportunity Employer M/F/V/H.

POSITIONS OPEN

RESEARCH ASSOCIATE IV (ANTICIPATED) DEPARTMENT OF BIOCHEMISTRY

Department of Biochemistry is seeking applicants for the position of research associate to manage and direct the NMR facility at Louisiana State University. This position requires a Ph.D. in chemistry or biochemistry or 5 years of experience in operation and maintenance of high field NMR spectrometers. Duties to include scheduling, supervising and operating a Bruker AM400 and coordinating its use with a 200- and 100-MHz spectrometer. Experience in 2D techniques required and knowledge of RF electronics desired. Please send résumé and three (3) letters of recommendation to: **Dr. Kathy Morden, Louisiana State University, Department of Biochemistry, 322 Choppin Hall, Baton Rouge, LA 70803. Application deadline is 30 January 1987.**

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

RESEARCH ASSOCIATE, Ph.D. Study the recycling of membrane components in adrenal cells. Must have at least 4 years of experience in preparation and analysis of fluorescent gangliosides and glycoproteins, and have background in microinjection techniques. Salary commensurate with experience. Send curriculum vitae and arrange for three letters of recommendation to be sent to: **Dr. Patrick J. Fleming, Department of Biochemistry, Georgetown University Medical Center, Washington, DC 20007.**

RESEARCH ASSOCIATE to conduct research in and develop poultry vaccines, quality control and testing of biological reagents using recombinant DNA and bacteriology fluorescent antibody techniques, enzyme-linked immunosorbent assays, various neutralization assays, in vivo and in vitro viral assays. Require Ph.D. degree in immunology. Salary: \$24,300 per year. Apply in person with résumé to: **Georgia Department of Labor, 410 Bradford Street, N.W., P.O. Box 350, Gainesville, GA 30503, or to the nearest Georgia Job Service Center (#GA 5190908).**

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE SOUTHERN FOREST EXPERIMENT STATION

RESEARCH ENTOMOLOGIST, USDA, Southern Forest Experiment Station, Gulfport, Mississippi, is seeking a research entomologist (permanent) to conduct studies on termite control. Incumbent is responsible for nationwide field evaluation of termiticides. The primary objective is to determine the efficacy of chemicals for subterranean termite control. Knowledge of statistical methods, skill in developing and improving insect control methods and the ability to report results orally and in writing are required. A Ph.D. or equivalent education and experience are required. U.S. citizenship is required. Salary is commensurate with experience, GS/GM-12/13 (\$32,567 to \$38,727). **Information concerning the position may be obtained by telephone: 504-589-3921. The USDA is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH GEOPHYSICIST

Experimental seismic processing and applications geophysicist: required as the leader for a cross-discipline research group involved in seismic software evaluation and special applications. Integrates standard computer processing software with research software. Applies new software to exploration seismic data. A broad knowledge of theoretical reflection seismology, 2D/3D seismic recording, processing, interpretation, and exploration geology is required. Familiarity with IBM, VAX, and CRAY computers and seismic workstation technology is strongly desired. M.Sc. or Ph.D. in geophysics is required. Applicant's background should include a minimum of 6 years of oil industry experience, including at least 2 years in exploration operations and seismic interpretation with a major oil company. Strong communication and leadership skills required to coordinate between research activities and exploration operations. Excellent working conditions and technical facilities. Salary in \$50,000 range. Qualified applicants should apply to: **Chevron Oil Field Research Company, Human Resources, P.O. Box 446, La Habra, CA 90631. An Equal Opportunity Employer.**

POSITIONS OPEN

RESEARCH ASSOCIATES (two). (i) To develop and evaluate methods to detect hepatitis A virus in clinical and environmental samples by nucleic acid hybridization and immunoassay methods. Requires doctoral degree in a biological science, with research experience in one or more of the following: virology, microbiology, molecular biology, genetics, cell biology, or immunology. (ii) To study hepatitis A virus disinfection in water and removal/inactivation in soils. Requires doctoral degree in a biological science, with research experience in virology, microbiology, environmental virology/microbiology or related field. Salary: \$19,000 to \$20,000 plus fringe benefits. Send résumé and three letters of recommendation to: **Mark D. Sobsey, ESE—School of Public Health, University of North Carolina, Chapel Hill, NC 27514. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE position is available immediately for a Ph.D.-biochemist with experience in lipid chemistry, liposomes, and isolation and reconstitution of intestinal and renal membrane enzymes and transport proteins. Starting salary \$19,000 per year. Send curriculum vitae and request two letters of recommendation to be mailed to: **Professor Frederick H. Leibach, Department of Cell and Molecular Biology, Medical College of Georgia, Augusta, GA 30912-3331. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE

Howard Hughes Medical Institute Laboratory at the Brigham & Women's Hospital, Harvard Medical School

The Howard Hughes Medical Institute Laboratory of Thyroid Research is looking for a research associate to work in the area of thyroid hormone action at a cellular level. Applicants should hold a Ph.D. degree and have experience in cell and molecular biology, protein purification and cell culture technology. The position is currently available. Please send a curriculum vitae and a brief letter describing your goals to: **J. Enrique Silva, M.D., Thorn Research Building, Office 1009, 20 Shattuck Street, Boston, MA 02115.**

RESEARCH ASSOCIATE—PROTEINS and MINERALIZATION. Postdoctoral position in new and growing, well-equipped Mineralization Laboratory at the University of South Alabama. The University of South Alabama is a comprehensive educational and research institution of 10,000 students and 500 faculty including a Medical Center and graduate programs terminating in both the M.D. and Ph.D. degrees. The successful applicant will work in a laboratory devoted to understanding the mechanisms of mineral formation, particularly interactions between organic and inorganic phases. Automated synthesis and sequencing of peptides/proteins, high-performance liquid chromatography, measurements of crystallization, radioisotopic measurements, cell and tissue culture, computer applications. Two-year appointment beginning summer 1987 or sooner at \$22,500 annually with possibility for continuation.

Send curriculum vitae, and names and addresses of three references to:

Dr. C. Steven Sikes
Department of Biological Sciences
University of South Alabama
Mobile, AL 36688
Telephone: 205-460-6331

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

RESEARCH ASSOCIATE. Collaborate with NIH-funded studies of humoral factor(s) affecting cell ion transport and growth in hypertension [see *AJP* 251, H984 (1986)]. Applicant should have Ph.D. in biochemistry, pharmacology, or cell biology with postdoctoral training. Experience with the cell culture and with chromatographic procedures, including HPLC, necessary. Beginning salary \$25,000 to \$30,000. Send curriculum vitae to: **H. W. Overbeck, M.D., Ph.D., Departments of Medicine and Physiology, University of Alabama at Birmingham, Birmingham, AL 35294. Equal Opportunity/Affirmative Action Employer.**

DIRECTOR OF VETERINARY MEDICINE

The Jackson Laboratory is inviting applications for the position of **Director of Veterinary Medicine** from experienced veterinarians (board certification in laboratory animal medicine preferred). The Director of Veterinary Medicine will report to the Director of the Laboratory and will be supported by diagnostic and pathology laboratories. Salary and rank will be commensurate with experience.

The responsibilities (75% effort) of the Director of Veterinary Medicine will include: (1) supervising the health and welfare of all animal colonies at the Laboratory (consisting primarily of approximately 750,000 mice at any given time); (2) supervising the veterinary clinical programs; (3) supervising the facilities and procedures for importing live mice and biological materials into the Laboratory; (4) planning prompt responses to potential health problems, maintaining a disease surveillance program, and dealing with the special health care needs of genetically complex inbred and mutant mice; (5) participating in long-range planning and the preparation of budgets, publications and grant applications relating to activities in the area of animal health; (6) reviewing and approving all animal health related operating procedures, major equipment purchases, renovations and new construction; (7) participating in animal health related training activities and committee work; and (8) responding to investigators from within the Laboratory and from the world-wide scientific community who request information on the health and welfare of JAX mice. In addition, there is an opportunity (25% effort) to pursue an individual research program, to collaborate with the wide range of investigators at the Laboratory, or to pursue special interests such as pathology or diagnostics.

The Jackson Laboratory is an independent non-profit organization pursuing research, training and resource activities. The Research Staff currently consists of 37 investigators pursuing independent research programs. The number of trainees (pre- and postdoctoral associates) varies annually and is presently 13. Resource activities include the annual distribution of approximately 2 million genetically defined mice to research workers throughout the United States and in 24 foreign countries.

Applications are due on or before March 1, 1987. Please send a current *Curriculum Vitae*, names of three professional references and a description of past and current activities, projects and/or research interests to: **Dr. Eva M. Eicher, Search Committee Chairperson, The Jackson Laboratory, Bar Harbor, Maine 04609.** The Jackson Laboratory is an Affirmative Action/Equal Opportunity Employer.

NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

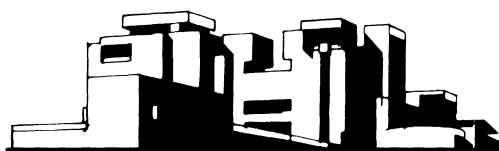
POST-DOCTORAL FELLOWSHIPS

Research Fellowships for individuals with a Ph.D. or equivalent experience in areas relating to pharmacokinetics, chemical metabolism, disposition and/or mechanisms or chemical toxicity will be available beginning October 1986. Research projects will involve work on known or potential environmental contaminants studied as part of the National Toxicology Program. Salary range \$17,000 to \$35,000 depending on relevant post-doctoral experience. Send letter describing research interests, curriculum vitae, plus names and addresses of three references to:

Johnny L. McLean
Personnel Office
National Institute of Environmental Health Sciences
P.O. Box 12233
Research Triangle Park, NC 27709
(919) 541-3316

An Equal Opportunity Employer

U.S. citizenship or eligibility for naturalization within 4 years of appointment is required.



DIRECTOR MESOSCALE AND MICROSCALE METEOROLOGY DIVISION NATIONAL CENTER FOR ATMOSPHERIC RESEARCH

The National Center for Atmospheric Research (NCAR) invites applications and nominations for the position of Director of its newly created Mesoscale and Microscale Meteorology (MMM) Division. The current NCAR Cloud Systems Division and the Mesoscale Research Section of the Atmospheric Analysis and Prediction Division will comprise the new division.

Research in MMM will be focused on fundamental mesoscale and microscale processes and their relation to global-scale processes, prediction and warnings of severe weather, and other relevant topics. Among the processes and phenomena to be studied are turbulence, planetary boundary layer processes, radiation, the effects of terrain and soil characteristics on weather and climate, fronts, mesoscale convective complexes, severe storms, and cloud and precipitation processes. Much of the division's research will be carried out in collaboration with university colleagues or as part of various national and international programs. The new division has a staff of approximately 55 scientists and support staff.

The Director of MMM ensures the scientific productivity, creativity, and excellence of the division; formulates and executes long and short-range plans; oversees the operation, management, and development of the division; and ensures that MMM contributes actively to collaborative research with university scientists and to national and international research programs. As a member of the NCAR management team, he/she will participate actively in NCAR strategy, policy, and administrative matters.

REQUIRES: Ph.D. in atmospheric or related physical science OR the equivalent combination of education and research experience; international recognition for scientific leadership in areas of MMM interest, as demonstrated by a research record of depth and breadth sufficient to provide long-term leadership of the division, and sufficient to qualify for appointment as a Senior Scientist at NCAR; demonstrated familiarity with the effective management and leadership of a complex research enterprise, including effective resource planning and utilization. Skill in directing, developing and evaluating staff; and strong communication skills.

We request that letters of application or nomination be sent promptly, in time for members of the search committee to consider them in advance of its meeting in March. Letters of application or interest should be accompanied by a resume and publications list. Please send letters and materials to: **Dr. Richard A. Anthes, Director, National Center for Atmospheric Research, P.O. Box 3000, Boulder, CO 80307.**

NCAR is operated by the 55-institution University Corporation for Atmospheric Research, an equal opportunity, affirmative action employer, under the sponsorship of the National Science Foundation.

NCAR
National Center
for Atmospheric Research

POSITIONS OPEN

RESEARCH TOXICOLOGIST

Chemical Industry Institute of Toxicology (CIIT), an innovative leader in toxicology research, has a position open for a toxicologist with research interests in biochemical mechanisms of chemical toxicity. Will lead a team specializing in this area of research in close cooperation with an internationally recognized multidisciplinary group studying basic issues in toxicology. Should have Ph.D. in an appropriate discipline, strong postdoctoral training and 2 to 5 years of additional experience in academia, industry, or government. An excellent publication record is required. Reply in confidence to: **Employment Office, Chemical Industry Institute of Toxicology, P.O. Box 12137, Research Triangle Park, NC 27709. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH TECHNICIAN: Be an integral part of salt-marsh ecological science on Sapelo Island, Coastal Georgia. Field collections and sorting, microscopy, analytical biochemistry, data processing. Housing provided at nominal rent on Sapelo. Beach access unlimited. Position available now. Send résumé and names/telephone numbers of references to: **Dr. Paul F. Kemp, Technician Search, University of Georgia Marine Institute, Sapelo Island, GA 31327, 912-485-2202. An Equal Opportunity Employer.**



Ecogen Inc., an expanding biotechnology company located in the Philadelphia area and specializing in microbial pesticide development and biological control, expects to have openings in early 1987 for both research scientists (Ph.D. required) and research assistants. Areas of expertise and training desired: **Molecular Biology**, expertise in DNA cloning and sequencing as well as in vitro mutagenesis techniques. **Microbial Genetics**, expertise in bacterial genetics (especially with *Bacillus* species).

Postdoctoral research associate positions are also available in the following areas: gene structure and regulation; protein separation and characterization; insect behavior/physiology.

Interested candidates for any of these positions should submit a current résumé, including the names, addresses, and telephone numbers of three references, to: **Personnel Director, Ecogen Inc., 2005 Cabot Boulevard West, Langhorne, PA 19047-1810.**

Ecogen is an Equal Opportunity Employer.

RESEARCH SCIENTIST: We are seeking a research scientist to join our expanding pulmonary research laboratory at **Long Island Jewish Medical Center**, a major teaching affiliate of SUNY at Stony Brook. The successful candidate will have a Ph.D. in a basic medical science and a productive record of independent investigation in the area of lung inflammation and repair. We offer a professional work environment, guaranteed salary commensurate with experience, a comprehensive benefits package and an academic appointment. Interested candidates should submit curriculum vitae and three letters of references to: **Michael Belenko, M.D., Division of Pulmonary and Critical Care Medicine, Long Island Jewish Medical Center, New Hyde Park, NY 11042. An Equal Opportunity Employer.**

RESEARCH SCIENTISTS AND ASSOCIATES, BIOTECHNOLOGY LABORATORY: European-based corporation is establishing Biotechnology Center in the Princeton area. Openings exist in the following areas:

Plant Physiology/Biochemistry
Plant Cell Biology/Tissue Culture
Molecular Biology

We are looking for Ph.D. and M.S. level candidates with at least 2 years of experience in all the above-mentioned areas. Write to:

**Director of Personnel
Enichem Americas
1221 Avenue of the Americas,
New York, NY 10020**

An Equal Opportunity Employer.

POSITIONS OPEN

RESEARCH SCIENTIST, Ph.D. St. Elizabeth's Hospital of Boston seeks a Ph.D. researcher to be responsible for purifying hematopoietic growth factors and their receptors from freshly isolated and cultured human bone marrow. The ideal candidate will have several years of experience in protein purification and membrane receptor analysis and will be eligible for a position on the research medical faculty of Tufts University. Competitive salary and benefits. Please send curriculum vitae to: **Nicholas Dainiak, M.D., Chief Division of Clinical Research, St. Elizabeth's Hospital, 736 Cambridge Street, Boston, MA 02135. An Equal Opportunity Employer.**

SYSTEMS ECOLOGIST

The Faculty of Environmental and Forest Biology solicits applications for an academic year, tenure-track, assistant/associate professor. Salary commensurate with qualifications and experience. Responsibilities include participation in undergraduate teaching and the development of one or more graduate courses in systems ecology, ecosystem analysis, simulation modeling, ecological theory and/or related areas, developing a strong research program, and advising graduate students. Ph.D. required, preferably in some biological discipline. A record of postdoctoral experience, high quality research accomplishments including grants and publications, is desirable. Submit a letter of application, including statements of teaching and research interests, curriculum vitae, transcripts and other materials, and have three letters of recommendation forwarded by 30 January 1987 to: **Dr. Mohan K. Wali, State University of New York College of Environmental Science and Forestry, Illick 305, Syracuse, NY 13210; telephone: 315-470-6813 or -6741. The State University of New York is an Equal Opportunity/Affirmative Action Employer.**

WETLAND WILDLIFE ECOLOGIST

The Faculty of Environmental and Forest Biology invites applications for a tenure-track, calendar year, assistant/associate professor. Salary commensurate with qualifications. Develop two courses in wetland wildlife ecology. Advise graduates and undergraduates. Research focus on ecology and management of vertebrates and wetland habitats. Develop public service and continuing education programs in wildlife ecology/management. Ph.D. in wildlife ecology/management, and background in freshwater wetlands required. Postdoctoral experience desirable. Letter of application, résumé, official transcripts, and three letters of recommendation must be received by 17 February 1987. Send to: **Dr. Robert E. Chambers, SUNY College of Environmental Science and Forestry, Syracuse, NY 13210; telephone: 315-470-6799/6743. The State University of New York is an Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF QUEENSLAND NHMRC SENIOR RESEARCH OFFICER/ RESEARCH OFFICER IN MOLECULAR BIOLOGY MEDICINE AND BIOCHEMISTRY

To work with an active research group with a commitment to research and clinical applications of molecular biology in liver disease. Projects include aspects of genetic and viral diseases.

Should have a Ph.D. with appropriate experience in molecular biological techniques and protein chemistry and capable of independent research. Current work utilizes cloned DNA for the analysis of unique DNA structures.

Salary per annum: Research Officer: \$A24,013 to \$A27,507 Senior Research Officer: \$A27,859 to \$A36,600

Appointment available initially 5 years from January 1987. Further information from Professor L. W. Powell (07) 253 5137. Please supply names and addresses of three referees. Closing date 16 January 1987. Ref. 48186

Applications detailing full information to: **The Director, Personnel Services, University of Queensland, Saint Lucia, 4067, Queensland, Australia.**

The University of Queensland is an Equal Opportunity Employer.

POSITIONS OPEN



SENIOR STAFF OFFICER FORUM ON DRUG DEVELOPMENT AND REGULATION

The **INSTITUTE OF MEDICINE** is seeking candidates for the position of senior staff officer to work with the chairman and members of the Forum on Drug Development and Regulation to plan and implement meetings, workshops, task forces, and resource documents; prepare and disseminate communications from and about the Forum; oversee the Forum budget, and supervise staff. This position requires an M.D., Ph.D. or equivalent in life sciences or a related field; 5 years' experience in research, management, and/or policy analysis; demonstrated analytic ability, coordination and organizational skills, and ability to work with committees and staff and manage a budget. Excellent salary commensurate with experience and exceptional benefits package. Send résumé and salary requirements to: **Position #162.179 National Research Council, 2101 Constitution Avenue, NW, Washington, DC 20418. An Equal Opportunity Employer.**

SENIOR RESEARCH ASSOCIATE

Stanford Electronics Laboratories, Stanford University, has an opening for an Engineering Senior Research Associate. Required: (i) at least 5 years of experience in the use of synchrotron radiation for experimental studies of electronic and structural properties of metal/semiconductor interfaces, (ii) familiarity with surface analysis techniques for covalent semiconductors, (iii) expertise in synchrotron radiation photoelectron spectroscopy, surface EXAFS, and resonance photoemission. Knowledge about interfacial properties (electronic, structural, chemical, metallurgical, electrical) of thin transition metal overlayers on GaAs and InP, and a well-established track record in published research papers in these topics are essential requirements. The candidate is required to work closely with the principal investigator in supervising a laboratory research group (15 graduate students, \$1 million research plan), and take responsibility for writing progress reports and research papers. Send application and résumé to: **M. Carlstead, Stanford Electronics Laboratories, Stanford, CA 94305-4055. Stanford University is an Affirmative Action/Equal Opportunity Employer. Deadline: 15 March 1987.**

SYNTHETIC ORGANIC CHEMIST

The Center for Environmental Health, Centers for Disease Control (CDC), Atlanta, Georgia, is seeking to fill the following position. This position is established for the synthesis and analysis of ultratoxic polychlorinated dioxins, furans, biphenyls, biphenylenes, and other environmental toxicants. Ph.D. inorganic chemistry is preferred with 1 to 2 years of postdoctoral specialized experience required. A strong background and experience in organic synthesis is required. This synthetic experience must demonstrate the use of glovebox techniques in the synthesis of toxic or air-sensitive compounds in the milligram range. It is essential that the candidate demonstrate knowledge and experience in theoretical molecular mechanics calculations, to determine molecular parameters. Experience in operating a high field NMR instrument and a mass spectrometer interfaced to a gas chromatograph will also be helpful. Knowledge of chromatographic and spectroscopic techniques, for example, TLC, liquid chromatography, HPLC, GC, GC-MS, NMR, IR, and UV, is strongly preferred.

Salary range is \$26,381 to \$44,430 depending on experience. Applicants should send curriculum vitae and three letters of reference to: **Louise Griggs, Personnel Management Office, Centers for Disease Control, Atlanta, GA 30333. Technical inquiries should be directed to: Dr. Donald G. Patterson, Jr., at 404-452-4176. Applications must be received within three weeks of publication of this notice.**

CDC is an Equal Opportunity Employer.

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

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

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

An Equal Opportunity Employer

Senior Scientist

Novel GI Drug Delivery

CIBA-GEIGY Corporation, a worldwide leader in novel drug delivery systems, has made a long term commitment to research and development. We currently seek a scientist to direct GI drug absorption research within the Basic Pharmaceuticals Research Group.

You will direct research on *in vitro* and *in vivo* absorption of drugs in the GI tract and through related biological membranes. You will supervise 1 or 2 scientists and monitor an outside grant program. A Ph.D. in Physiology, Pharmacology, Biochemistry, or related degree, plus extensive background in GI transport and physiology are required.

We offer an excellent salary and comprehensive benefits. Send resume, including salary history and requirements, to: Sue Santora, CIBA-GEIGY Corporation, 444 Saw Mill River Road, Ardsley, NY 10502. An equal opportunity employer m/f.

Science Serving Mankind

CIBA-GEIGY

Last year, we put \$143 million into a few good ideas.*

We're Syva, the diagnostics subsidiary of Syntex. Last year, Syntex's total R&D spending represented 17% of sales, one of the highest ratios in the industry. Next year, it'll be even higher.

As an established diagnostics company, Syva encourages you to pursue innovative research, not old chemical recipes. We offer more diverse career challenges than most start up biotechnology firms and our current openings for scientists with product development experience are no exception. Join our dynamic, multidisciplinary development team and help us develop unique analytical methods in several project areas:

Blood Typing Development Manager

Direct the development of reagents for a unique blood typing system employing several novel technologies. You should have a PhD or equivalent in Biochemistry, Immunology, or Immunohematology with

at least 10 years' experience in product development with a strong record of accomplishment, preferably in instrumentation and blood banking.

Senior Chemists

Development: Be a key member of a team developing high sensitivity methods for hormone determination using a unique new technology. You should have a PhD or equivalent and have successfully developed commercial hormone assays using ELISA, IRMA, or related methods during at least 2 years of industry experience.

Microbiology: Apply biochemical skills to develop high sensitivity methods for infectious disease diagnosis using a new Syva developed technology. You should have a PhD or equivalent in Biochemistry or Immunology with at least 3 years' industrial and research experience in developing immunoassays. Experience with protein immobilization and derivatization and microbiological techniques are preferred.

Chemists

Several of our teams are looking for BS/MS (or equivalent) level scientists with experience in developing immunoassay techniques for small molecules or for infectious disease agents. Sound quantitative training in Chemistry, Biochemistry, or Immunochemistry is required, with at least 2 years' related experience.

Please send your resume to: Professional Staffing, Dept. DP, P.O. Box 10058, Palo Alto, CA 94303. Principals only please. An equal opportunity employer.



Syva/Syntex Diagnostics Division

*Includes Syntex research budget.

POSITIONS OPEN

STAFF SCIENTIST

Internationally recognized, university-affiliated institute specializing in bioanalytical research has unique opening for staff scientist to assist director with research and institute development. Challenges include research, assistance with preparing written reports and publications, and promotion of institute image. Qualifications: Ph.D. in chemistry or biochemistry. Strong communication skills required. Salary will be competitive. Send résumés to: **Professor Barry L. Karger, Barnett Institute of Chemical Analysis, 341 Mugar Hall, Northeastern University, Boston, MA 02115. Northeastern is an Equal Opportunity/Affirmative Action, Title IX University.**

TENURE-TRACK FACULTY POSITION IN MICROBIOLOGY DEPARTMENT OF BIOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Candidates are sought for a tenure-track position at the level of assistant professor in the field of prokaryotic microbiology.

Candidates for the position should have significant research accomplishments in the area of prokaryotic microbiology. We are interested in a very wide range of research interests including such areas as bacterial differentiation, plant-bacterial interactions, etc.

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

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

Send applications to:

**Chairman, Microbiology Search Committee
c/o Room 56-511, Department of Biology
Massachusetts Institute of Technology
Cambridge, MA 02139
An Equal Opportunity Employer.**

POSITIONS OPEN

TEACHING ASSISTANTSHIPS (including tuition waiver) available for qualified applicants beginning September 1987. Graduate study leading to M.S. or Ph.D. with concentration in biochemistry, botany, ecology, marine biology, microbiology, molecular biology, physiology, and vertebrate zoology. For further information, write to: **Dr. Gwilyn S. Jones, Graduate Coordinator, Northeastern University, Boston, MA 02115. Northeastern University is an Equal Opportunity Affirmative Action/Title IX Employer.**

SCIENTISTS

The University of Utah Research Institute (UURI) seeks scientists for interdisciplinary research. Current projects include:

Geothermal research. Better discovery and assessment methods. Currently have major drilling project.

Acid Precipitation. Effects of acid deposition in two high-elevation watersheds. Implementation of biogeochemical watershed model.

Atmospheric Visibility research. Comprehensive model of light scattering through polluted and clean atmospheres and subjective effects on scenic visibility.

Remote Sensing research. Applications to urban ecology, desertification and global habitability.

Global Climate research. Variability of weather in local, regional, and global contexts. Relation to global habitability.

Particular interests: geohydrologists, reservoir engineers, drilling engineers, structural geologists, organic geochemists, applied physicists, mathematicians with experience in our research areas. Will consider others in closely related fields. Advanced degree or equivalent required, Ph.D. preferred. Want those with proven record for obtaining research funds. Hiring contingent on budget. Positions open until one to three people hired.

Enjoyable environment in association with major university in clean city. Abundant nearby recreation. Respond with details of education and experience to: **Phillip M. Wright, c/o Ms. Pat Baucum, 101 Annex Building, University of Utah, Salt Lake City, UT 84112. UURI is an Equal Opportunity Employer. Women and minorities are encouraged to apply.**

POSITIONS OPEN

UTAH STATE UNIVERSITY invites applications for **TWO TENURE-TRACK POSITIONS** available fall 1987.

Associate or full professor with distinguished research accomplishments in physical organic chemistry and commitment to quality teaching who will strengthen department. Send résumé and outline of research by 30 March 1987 to: **E. A. McCullough, Jr., Chr., Physical Organic Search Committee. Inquiries will be kept confidential.**

Uniquely qualified associate professor or assistant professor with exceptional promise in research and teaching at undergraduate and graduate level. The position emphasizes research on molecules of biological and/or environmental importance. Preferred expertise: (i) spectroscopy, (ii) molecular studies of nucleic acid function, (iii) in situ analytical techniques. Send résumé, summary of research plans, three letters of recommendation by 15 February 1987 to: **J. T. Spence, Chairman, Search Committee, Department of Chemistry and Biochemistry, Utah State University, Logan, UT 84322-0300. Equal Opportunity Employer/Affirmative Action.**

The Department of Physiology and Biophysics, University of Illinois College of Medicine at Chicago is seeking candidates for two tenure-track positions at the assistant professor level. Applicants must have a doctoral degree and several years of postdoctoral experience. They should be prepared to carry out independent research, participate in the teaching of mammalian physiology to graduate and health professional students, and to develop an advanced graduate level course in their area of interest. We will give preference to applicants who are studying cardiovascular or renal physiology and/or using molecular biological approaches to answer physiological questions. Applicants should send their curriculum vitae, reprints of several recent papers, description of future research plans, and the name of three references to: **Dr. G. Gibori, Chairperson of the Search Committee, Department of Physiology and Biophysics, University of Illinois College of Medicine at Chicago, P.O. Box 6998, Chicago, IL 60680.**

AAAS MASS MEDIA SCIENCE AND ENGINEERING FELLOWS PROGRAM

The American Association for the Advancement of Science (AAAS) invites outstanding students in the natural and social sciences and engineering, preferably those at the graduate level, to apply for the 1987 Mass Media Science and Engineering Fellows Program. Students majoring in English, journalism, or other nontechnical fields are not eligible for these fellowships.

Fellows will work as reporters, researchers, production assistants, and script consultants for 10 weeks during the summer at newspapers, news magazines, and radio and television stations across the country. Fellows will have the opportunity to participate in the news-making process, to increase their understanding of editorial decision-making, and to develop skill in conveying to the public a better understanding and appreciation of science and technology.

AAAS pays a \$300 weekly stipend and travel expenses. Deadline for receipt of applications is 2 February 1987. *Minorities and persons with disabilities are especially encouraged to apply.*

For further information and applications, write:

**Mass Media Science and Engineering
Fellows Program
AAAS
1333 H Street, NW
Washington, D.C. 20005**

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NEW LAB SERVICE DEPT.
1515 BROADWAY
NEW YORK, N.Y. 10036**

Research Assistant/ Technicians

Agracetus, a world leader in agricultural biotechnology, seeks innovative and self-motivated individuals to join our plant genetic engineering group. They will be part of an exciting program directed towards understanding and developing gene transfer and expression in plants. Candidates must have a B.S. or M.S. degree with one or more years of experience in molecular biology. Letters of application should include a detailed description of experience in recombinant DNA techniques.

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

Please send your resume to: **Personnel Department, Agracetus, 8520 University Green, Middleton, WI 53562.** We are an Equal Opportunity Employer.

Agracetus

RESEARCH ASSOCIATE MOLECULAR BIOLOGY

An industry leader in advanced biotechnology, **Amgen** develops products in the human health care area. We have an immediate opportunity for a research associate to provide support in our Molecular Biology Department.

The qualified candidate should have a BS/MS in Molecular Biology, Biochemistry or a related field, and 1-2 years experience in the manipulation and characterization of nucleic acids. Skill and interest in DNA kilo-sequencing methodology is essential.

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

Qualified candidates should direct a resume and the names of three references to:

Recruitment, Dept. 96 A
AMGEN
1900 Oak Terrace Lane
Thousand Oaks, CA 91320

AMGen

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Biochemistry

Project Manager Product Development

BECTON DICKINSON, a biotechnology company whose specialty is developing monoclonal antibodies and sophisticated computer-based cell sorters for use in medical and biological research, needs an experienced Project Manager to plan, organize, and manage the development of reagent-based research and in-vitro-diagnostic products.

You'll be responsible for integrating the performance of these products with companion instrumentation; providing technical guidance to the Product Development team; formulating, assembling, and testing prototype and pilot lots; writing product documentation; hiring, training, supervising, and reviewing Product Development team personnel; and developing annual plan objectives and budgets.

PhD in Biochemistry or Immunochemistry plus 5 years of postdoctoral experience (three in the immunodiagnostics industry) required. Must have solid working knowledge of device Good Manufacturing Practices (GMP) and 2 years' experience managing a product or process development group charged with formulating and optimizing performance of immunodiagnostic reagents and kits. Background in flow cytometry, protein biochemistry, immunochemistry, hematology, and cellular immunology desirable, as is experience with development or production of monoclonal antibodies and with recombinant DNA technology.

Becton Dickinson offers competitive salaries and an excellent benefits package. Send your resume and salary history to: **Manager of Human Resources, Becton Dickinson Immunocytometry Systems, 2375 Garcia Avenue, Mountain View, CA 94043.** An equal opportunity employer.

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**BECTON
DICKINSON**

POSITIONS OPEN

QUEEN'S UNIVERSITY KINGSTON

The department of biology invites applications for a **TENURE-TRACK POSITION IN POPULATION/ EVOLUTIONARY GENETICS**, using applications of molecular genetics techniques on natural populations. The successful candidate should be prepared to develop a vigorous research program, teach in the undergraduate and graduate programs, and supervise graduate students. There is the potential to interact with an established biotechnology group. Qualifications include a Ph.D. degree and published evidence of excellent research ability. Candidates of either sex are equally encouraged to apply. The appointment will be effective 1 July 1988 (or as negotiated) and is expected to be at the rank of assistant professor with salary commensurate with qualifications. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Application deadline is 1 March 1987 or until a suitable candidate is selected. Send applications, which should include curriculum vitae, statement of future research interests, and names and addresses of three referees to: **Dr. D. T. Dennis Head, Biology Department, Queen's University, Kingston, Ontario, Canada K7L 3N6.**

TERRESTRIAL PLANT ECOLOGIST using physiological and/or molecular techniques in research. Assistant Professor, tenure-track. Candidate will be expected to develop active research program, seek extramural funds, direct graduate student research, and complement existing faculty expertise. Part of the assignment will be in a multisection general biology sequence. Candidate must have an earned doctoral degree and a strong commitment to teaching at both undergraduate and graduate levels. Teaching experience preferred. Send letter of application and curriculum vitae including names and phone numbers of at least three references to: **Dr. Jeffrey A. Butts, Chairperson, Department of Biology, Appalachian State University (ASU), Boone, NC 28608.** Application deadline is 6 February 1987.

ASU is an Equal Opportunity/Affirmative Action Employer.

THE UNIVERSITY OF TEXAS AT AUSTIN ASTRONOMY DEPARTMENT

Invites Applications For The Vaughan Centennial Chair in Astronomy

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

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

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

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

VERTEBRATE ZOOLOGIST with field expertise. Georgia Southern College has a tenure-track position at assistant professor level effective September 1987. Teaching duties will include general biology, zoology, ornithology, mammalogy, and graduate course(s) in area of specialty. A completed Ph.D. is required and postdoctoral experience preferred. A commitment to quality teaching and research will be expected. Send applications by 13 February 1987, with curriculum vitae, statements of personal teaching philosophy and research interests, transcripts of all college work, names and addresses of three references (letters of recommendation will be requested from the top candidates at a later date) to: **Dr. Wayne A. Krissinger, Faculty Search Committee, Department of Biology, Georgia Southern College, Statesboro, GA 30460-8042.** Georgia Southern College is an Equal Opportunity/Affirmative Action Employer and specifically invites and encourages applications from women and minorities.

POSITIONS OPEN

VETERINARY MICROBIOLOGIST: Tenure-track position at the Food Animal Health Research Program, The Ohio Agricultural Research and Development Center, The Ohio State University (OSU), Wooster, Ohio. The position is at the assistant or associate professor level; the candidate's record of academic accomplishments will be considered for appointment rank. D.V.M. and Ph.D. required, certification by the American College of Veterinary Microbiologists or other specialty boards is desirable. Candidate is expected to develop and lead a research program on respiratory disease of ruminants, participate in graduate teaching programs and collaborate with other veterinary and animal scientists. Salary is commensurate with qualifications. Applicants should submit curriculum vitae and names of three references by 1 March 1987, to: **Dr. Y. M. Saif, Food Animal Health Research Program, OARDC, The Ohio State University, Wooster, OH 44691.** OSU is an Affirmative Action/Equal Opportunity Employer.

WASTE MANAGEMENT/ ENVIRONMENTAL SCIENCES Ball State University Muncie, IN 47306

Candidate sought to fill tenure-track position in natural resources with a specialty in waste management. Successful candidate will have an opportunity to teach existing courses in specialty, develop new courses, and concomitantly develop a quality research program. Applicant must have graduate training and/or significant professional experience in waste management, including knowledge of data analysis and computer software programs. Doctorate required. Rank and salary based on qualifications. To be assured consideration, send letter of application, official college transcripts, vitae, and a list of three references to: **Thad Godish, Ph.D., Chairman, Search and Screen Committee, Department of Natural Resources, Ball State University, Muncie, IN 47306.** Position open until filled; selection process will begin 15 March 1987. Position availability dependent on fiscal year funding.

Ball State University Practices Equal Opportunity in Education and Employment.



VICE PRESIDENT FOR HEALTH AFFAIRS University of Virginia Charlottesville

The University of Virginia, a major public university, invites nominations and applications for the position of Vice President for Health Affairs of the University of Virginia Medical Center starting 1 September 1987. The Vice President is the chief executive officer of the Medical Center with administrative responsibility for the Schools of Medicine and Nursing and the University of Virginia Hospital. The Vice President reports to the President of the University of Virginia.

Please send nominations or applications by 13 February 1987 to: **Edward W. Hook, M.D., Chairman of the Search Committee, Box 466, University of Virginia Medical Center, Charlottesville, VA 22908.**

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

WATER RESOURCES, tenure-track assistant professor of geography, University of Iowa to begin August 1987 or August 1988 depending on candidate. Postdoctoral experience required. Salary competitive. Specialties in ground water, hydrology, and fluvial processes desirable. A substantial research record, ability to teach at all levels, and a commitment to acquire external funding are necessary. Screening to begin 15 February 1987; position open until filled. Apply with vitae and name/address of at least three references to: **David R. Reynolds, Chair, Department of Geography, University of Iowa, Iowa City, IA 52242.** Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

WATER RESOURCE MANAGEMENT. The Yale School of Forestry and Environmental Studies invites applications for a junior appointment of a person to teach in and coordinate an interdisciplinary program, involving other Yale departments, in water resources for land management practitioners. Specialized research in one of the constituent fields is also expected. Applicants must have complete doctorates. Each should send, before 10 March 1986, a curriculum vitae; names and addresses of three references; and a statement of research interests as well as ideas about instruction and program to: **Prof. David M. Smith, School of Forestry and Environmental Studies, 360 Prospect Street, Yale University, New Haven, CT 06511.** Yale University is an Equal Opportunity/Affirmative Action Employer.

WILDLIFE ECOLOGIST: Permanent, full-time position starting August 1987 teaching identification, techniques, ecology, and management of wildlife species. Additional teaching responsibilities to supplement ecology and/or zoology courses. Ph.D. preferred; teaching and research experience expected. Send curriculum vitae, letter of interests, and names and phone numbers of three references by 1 February 1987 to: **Dr. Jerry Cinnamon, Center of Environmental Sciences, Unity College, Unity, ME 04988; telephone: 207-948-3131.** An Equal Opportunity Employer.

ZOOLOGIST. Marshall University Department of Biological Sciences invites applications for a tenure-track position at the assistant professor level starting August 1987. Applicants must have a Ph.D., broad training in biology, a strong commitment to undergraduate teaching, and the ability to direct graduate student research. Major responsibility will be teaching in the general biology program, but additional assignments may include upper-level zoology courses. Research area is open. Please send curriculum vitae, three letters of recommendation, statement of research interests, and official undergraduate and graduate transcripts by 31 January 1987 to: **Dr. Michael Seidel, Chair, Zoology Search Committee, Department of Biological Sciences, Marshall University, Huntington, WV 25701.** Applicants whose files are not completed by the closing date will not be considered. Marshall University is an Equal Opportunity Employer.

CONFERENCES

THE NEW YORK ACADEMY OF SCIENCES An International Organization Conference On:

BIOLOGY OF THE LEUKOTRIENES 29 June-1 July 1987

Wyndam Franklin Plaza Hotel, Philadelphia, PA

This conference will address the pharmacology, biochemistry, immunology and pathophysiology of leukotrienes (LTs) with the goal of reviewing the state of knowledge, analyzing collectively new data to recognize the main unanswered questions and promote interdisciplinary research. The meeting will bring together an international group of basic and clinical scientists from Academe and industry.

There will be contributed poster sessions. The deadline for submission of abstracts is 15 February 1987. A 200-word summary of work to be presented should be sent to: **Dr. Roberto Levi, Department of Pharmacology, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.**

Conference Chairs: **Roberto Levi, M.D., Cornell University Medical College, NY** and **Robert D. Krell, Ph.D., Stuart Pharmaceuticals, DE**

For program and registration information: **Conference Department, The New York Academy of Sciences, 2 East 63 Street, New York, NY 10021.**

U.S. PATENT AND TRADEMARK OFFICE

POSITION: Microbiologist/Patent Examiner
Opportunity involves the scientific and legal evaluation of patent applications involving recombinant DNA, molecular and cellular immunology, molecular genetics, cell biology, microorganisms, cell culture, fermentation, enzymology or clinical chemistry.

QUALIFICATIONS: A full 4-year or longer professional curriculum in an accredited college or university leading to a Bachelor's Degree or higher with specific study in Molecular Biology, Biochemistry, Immunology, Microbiology or cell Biology.

A Ph.D. or M.S. degree with relevant research experience is preferred. A B.S. degree with significant research experience will be considered.

Research Experience in any of the following areas would be beneficial: DNA cloning, gene expression, sequencing techniques, hybridoma technologies, monoclonal antibody applications, mammalian or plant cell lines, cell culture, immunoassays, hybridization techniques, fermentation, enzymatic reactions, diagnostics and automation of clinical analysis.

SALARY: Dependent upon experience and qualifications.

LOCATION OF POSITION: Arlington, VA

For further information contact:

Nancy Strother
Patent and Trademark Office
Office of Personnel, C&E
CPK 1, Suite 700
Washington, D.C. 20231
703-557-1244

PRODUCT MANAGER BIOTECHNOLOGY

We are a dynamic and rapidly growing Company and a major force in the Life Sciences marketplace. As such, we are striving to enhance our position in the field of Biotechnology. To do this we need a talented marketing professional to support our biotechnology sales force.

This individual will investigate new biotechnology product opportunities, manage established product lines and develop and implement marketing and sales training plans.

Qualified candidates must possess a BS in Biochemistry, Cell Biology, Molecular Biology or a related life science along with three to five years of marketing experience in a biotechnology environment. Prior hands-on laboratory bench and/or sales experience is also essential. Experience with biotechnology research reagents highly desirable.

If you would like to work in a challenging Biotechnology environment and contribute to the future success of our organization, then send your detailed resume along with your salary requirements to: James F. Richardson, Manager, Employee Relations



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SUMMER 1987 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 1987. 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 8 June through 14 August 1987. The awards will be announced prior to the end of April 1987.

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 1987 Environmental Fellows will receive a taxable stipend of \$675 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:

Patricia S. Curlin, Manager
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 10 March 1987.

NIH STAFF FELLOWSHIP/NIH VISITING FELLOWSHIP

The Developmental and Metabolic Neurology Branch, National Institute of Neurological and Communicative Disorders and Stroke, National Institutes of Health, Public Health Service, invites applications for NIH Staff Fellowship or NIH Visiting Fellowship position. This postdoctoral position is available to study regulation of genes following transfer into cultured cells and whole organisms using retroviral vectors and recombinant adenoviruses. The candidate will be expected to study regulation of human globin genes. Experience in one of the following areas is highly desirable: eukaryotic molecular biology, hemopoiesis or mouse embryology. For the NIH Staff Fellowship program, candidates must be U.S. citizens or resident aliens and must either have been awarded their doctoral degree in biology or a related science, or have been certified by a university as meeting all the requirements leading to such a doctorate. Candidates with less than 3 years of professional level post-doctoral research experience may be considered for entrance into the program as Staff Fellows. Senior Staff Fellowships may be considered for those having 3 to 7 years of professional level post-doctoral research experience. The starting salary range is \$16,000 to \$23,000 per year and is commensurate with experience. The initial appointment is for two years with additional extensions up to five years possible. For the NIH Visiting Fellow program, candidates may be resident or nonresident aliens, and must have a doctoral degree, or its equivalent, in a health science field whose relevant postgraduate experience does not exceed 3 years of experience at the time of their entrance on duty. The starting salary range is \$16,000 to \$18,000 per year and is commensurate with experience. The original appointment is for one year with renewals up to a maximum of 2 additional years possible.

The position is located in Bethesda, Maryland. For position information and qualifications requirements, candidates may call Mr. Wallace Holland, Personnel Management Specialist, on (301) 496-6334. Interested candidates should send a curriculum vitae, a brief statement of research interest and the names of three (3) references to:

Dr. Stefan Karlsson
IRP, DMNG, NINCDS
National Institutes of Health
9000 Rockville Pike
Bldg. 10, Rm. 3D04
Bethesda, MD 20892
(301) 496-3285

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ASSISTANTSHIPS

DUATE RESEARCH ASSISTANTSHIP—in biology with strong background in aquatic istry to conduct research dealing with effects of n neutralization on biota and water quality of two land streams. Send résumé, letter of application, ames of three references (with phone numbers) to: **R. P. Morgan II, Appalachian Environmental ratory, University of Maryland, Center for Envi- ental and Estuarine Studies, Frostburg, MD 2**, by 16 January 1987. *University of Maryland is an Opportunity/Affirmative Action Employer.*

COURSES

SHORT COURSE IN MEDICAL AND ERIMENTAL MAMMALIAN GENETICS
20 to 31 JULY 1987

lucted by The Jackson Laboratory and Johns ins University School of Medicine. Lectures ing the entire field are supplemented by method- al workshops in cytogenetics, biochemical screen- kage analysis, and molecular genetics, as well as by nstrations of mouse mutants and problems in clini- netics. Held at The Jackson Laboratory. Inquiries plications should be made to: **Victor A. McKu- M.D., 292 Carnegie Building, Johns Hopkins ital, 600 North Wolfe Street, Baltimore, MD 5**; or to **Thomas H. Roderick, Ph.D., c/o Train- nd Education Office, The Jackson Laboratory, Harbor, ME 04609.**

HOW TO MAKE MICROCAPSULES A HANDS-ON COURSE

lay laboratory course designed to teach the art and e of microcapsule making. Suitable for biologists, acists, chemists, life scientists, and engineers. En- ent limited to 12. Lectures and laboratory sessions : **Curt Thies, Professor of Chemical Engineering at ington University in St. Louis. Spring Session: 25 March 1987, 22 to 24 April 1987. For information one: 314-889-6066.**

REQUEST FOR PROPOSALS

REQUEST FOR PROPOSALS MOLECULAR GENETIC STUDIES RETINITIS PIGMENTOSA

posals are invited for molecular genetic analysis of tis pigmentosa (RP), Usher's syndrome, and allied ited retinal degenerations. Research proposals must on isolation and characterization of the gene ng X-linked RP, currently mapped to Xp11, and/or apping and subsequent isolation and characteriza- of those genes causing other X-linked, autosomal nant, and recessive forms of retinal degeneration. mens from the appropriate pedigrees can be ob- l through the RP Foundation Fighting Blindness. sals to study the defects causing retinal degenera- n animal models, using molecular genetic approach- e also invited.

ant applications will be reviewed by a special panel sultants to the RP Foundation Scientific Advisory l, solely on the basis of scientific merit and direct nce to inherited retinal degeneration. Awards aver- \$100,000 annually for 3 to 5 years are anticipated. erved individuals should submit a letter of intent i briefly summarizes the proposed research ap- h, describes background of the laboratory, and an approximate budget and the curriculum vitae of rincipal investigators. Following a preliminary re- complete applications will be invited from a limited ver of applicants. Deadline for letter of intent is 7 ary 1987, and funding is expected to begin approx- ly 1 September 1987.

dress letters of intent to:

Jeanette S. Felix, Ph.D.
Director of Science

RP Foundation Fighting Blindness
1401 Mt. Royal Avenue, Fourth Floor
Baltimore, MD 21217
Telephone: 301-225-9400

GRADUATE PROGRAM

GRADUATE PROGRAM IN PHYSIOLOGY WITH SPECIALIZATIONS IN ANATOMY, BIOPHYSICS, PHARMACOLOGY, AND PHYSIOLOGY

The Department of Physiology, Southern Illinois University at Carbondale, offers both M.S. and Ph.D. degrees in Physiology with unique opportunities to specialize in four areas (see above). Assistantships and Fellowships (>\$8000 per year) are available to qualified students. The department presently has 30 graduate students and emphasizes research areas of reproductive, cardiovascular, and cell biology. Write for brochure and application materials to: **Graduate Program Director, Department of Physiology, School of Medicine, Southern Illinois University, Carbondale, IL 62901.**

SYMPOSIUM

THE 8th INTERNATIONAL SYMPOSIUM ON ADP-RIBOSYLATION 30 MAY TO 3 JUNE 1987 FORT WORTH, TX

SYMPOSIUM THEMES

Carcinogenesis, Differentiation and Chemotherapy
Niacin Nutrition and NAD Metabolism
ADP-Ribosylation and Chromatin Function
Enzymology of ADP-Ribosylation
ADP-Ribosylation and Signal Transduction
Molecular Genetic Approaches to ADP-Ribosylation
For Abstract forms and information contact:
Dr. M. K. Jacobson, Department of Biochemistry
Texas College of Osteopathic Medicine
Fort Worth, TX 76107

TRAINEESHIP

POSTDOCTORAL TRAINEESHIPS at the University of Virginia in cancer cell biology, molecular biology, virology, and immunology supported by the National Cancer Institute. Competitive stipends and fringe benefits. Primary research interests (and supervisors) include: (i) immune regulation and hybridomas (**Benjamin**); (ii) cell and adenovirus transcription regulation (**Beyer**); (iii) viral structure and membranes (**Brown**); (iv) viral/trypanosome transcription controls (**Emerson**); (v) molecular biology of histocompatibility gene expression (**Engelhard**); (vi) venoms and protein structure/sequencing (**Fox**); (vii) bacterial genetics/recombinant DNA (**Kadner**); (viii) *c-src* transformation/growth regulation (**S. Parsons**); (ix) sarcoma virus DNA recombinants and sequencing (**T. Parsons**); (x) molecular organization and genetics of bacterial membranes (**Schnaitman**); (xi) yeast histone gene DNA sequences and function (**Smith**); (xii) molecular biology of leukemogenic viruses (**Thomas**); (xiii) tetanus toxin plasmids and monoclonal antibodies (**Volk**); (xiv) molecular biology of viral membrane proteins (**Wagner**); (xv) molecular events in viral transformation (**Weber**).

APPLICATIONS: Send curriculum vitae, description of research interests, and letters from three references to: **Dr. Robert R. Wagner, Chairman, Department of Microbiology, Box 441, University of Virginia Medical School, Charlottesville, VA 22908.**

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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 1987. 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**), 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.*

FELLOWSHIPS

DOCTOR OF ARTS IN BIOLOGICAL SCIENCES; FELLOWSHIPS are available for qualified persons interested in the D.A. degree in biological sciences. The program stresses preparation for undergraduate teaching at colleges and universities. Applicants should hold a master's degree in some area of biology. Deadline for receipt of application is 1 March 1987. For more information contact: **Chairman D. A. Committee, Department of Biological Sciences, Idaho State University, Pocatello, Idaho 83209. An Equal Opportunity Employer.**

DOGETT PREDOCTORAL FELLOWSHIP

The University of Tennessee, Memphis, Graduate School of Medical Sciences, announces the opening of competition for a full support predoctoral fellowship for study beginning in the summer or fall, 1987. An annual stipend of \$8500 plus tuition, renewable annually for 4 years, is included. An outstanding academic record with at least a baccalaureate degree in an appropriate field is required. Selection will be based on demonstrated achievement and future promise, rather than financial need.

Fields of study include: anatomy and neurobiology, biochemistry, microbiology and immunology, pathology, pharmacology, physiology and biophysics, and interdisciplinary program in toxicology.

Completed applications, transcripts of all previous college and university work, three letters of reference, scores from the Graduate Record Examination (verbal and quantitative), and from the TOEFL exam (if a foreign student), must be received by 1 February 1987.

Nondiscriminatory as to race, color, national origin, sex, religion, age, handicap or veteran status. For details and application materials write:

Dr. Ira Weinstein
Associate Dean for Academic Affairs
University of Tennessee, Memphis
Memphis, TN 38163

DREXEL FELLOWSHIPS IN BIOMEDICAL ENGINEERING AND SCIENCE. These fellowships are supported by the Calhoun Endowment. Students can specialize in the following areas: artificial organs, bioinstrumentation, biomedical imaging and signal processing, biomedical science, biomaterials, biomedical systems and control, cardiovascular dynamics, diagnostic ultrasound, sensors and electrodes, biomechanics and rehabilitation. Each fellowship includes a minimum stipend of \$8,500 for a 12-month appointment beginning fall 1987. With a waiver of all tuition and fees this award is worth approximately \$18,000. Deadline for applications: 28 February 1987. For application write: **Dr. Dov Jaron, Director, Biomedical Engineering and Science Institute, Drexel University, Philadelphia, PA 19104.**

GRADUATE AND POSTDOCTORAL FELLOWSHIPS IN REPRODUCTIVE ENDOCRINOLOGY—Pre- and postdoctoral fellowships are available for training in reproductive endocrinology at The University of Michigan. An interdisciplinary program involves 19 faculty in 10 basic science and clinical departments. Research activities include: protein hormone action; neuroendocrine regulation of cyclicity; endocrine rhythm; mechanisms of hormone biosynthesis; control of gene expression; sexual development and puberty; structure and function of steroid-secreting cells; hormonal regulation of follicular maturation; differentiation and atresia; and corpus luteum function. Application materials must be received 1 March 1987. *Only U.S. citizens and permanent residents are eligible.* Application information and descriptions of research programs are available from: **Dr. Thomas Landefeld, Program Coordinator, Reproductive Endocrinology Program, The University of Michigan, Department of Pharmacology, M6413 Medical Science I Building, Ann Arbor, MI 48109-0626. The University of Michigan is an Equal Opportunity/Affirmative Action Employer.**

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Design and develop diagnostic test reagents, controls and dedicated photo-optical instrumentation to meet the needs of the coagulation diagnostic laboratory. Opening exists for:

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Sr. Scientist/Scientist

MS/PhD with at least 2-3 years of professional experience, preferably in an industrial environment, with a strong background in analytical disciplines required.

—Viral & Hormonal Diseases R&D

Involved in the development of in-vitro diagnostics for numerous disease states including tumor markers. Openings exist for:

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PhD in Biochemistry or related field plus 7-10 years experience in tumor markers required.

Associate Scientist

BS/MS with 2-5 years in Immunochemistry, preferably industrial required.

—Immunomicrobiology R&D

This department uses the most advanced test technology in its leading edge efforts in monoclonal antibody development. Openings exist for:

Sr. Scientist

PhD in Immunochemistry, Biochemistry or Microbiology plus 2-3 years of post-doctoral experience required.

Scientist

MS/BS in Biochemistry, Immunochemistry, Microbiology or related field with 2-5 years of professional experience required.

Associate Scientist

BS in Biochemistry, Microbiology or a related discipline with 1-2 years of professional experience required.

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Conduct feasibility studies related to the application of new technologies to diagnostic medicine, especially in the areas of microbiology, immunology, coagulation and clinical chemistry. Openings exist for:

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Sr. Scientist/Scientist

PhD in Organic Chemistry with 1-4 years experience in synthesis of unique compounds required.

Sr. Scientist/Scientist

PhD in Analytical Chemistry with 1-4 years research experience in development/application of new analytical methods required.

—Clinical Services

Responsible for the design, management and reporting of data concerning clinical field trials of new in-vitro diagnostic products. Openings exist for:

Sr. Scientist

PhD/MS in Clinical Chemistry, Microbiology, Biochemistry, Physiology or related field and 7+ years of experience in clinical laboratory diagnostic products required.

Our corporate location is adjacent to Research Triangle Park, North Carolina, a growing, high technology and low unemployment area that is near three reputable universities and offers its inhabitants a nationally recognized quality of life. Wouldn't you like to explore the unique opportunities that emanate from being part of a start-up team? If so, then look to the future... it begins with us.

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FELLOWSHIPS

INTERNATIONAL CANCER RESEARCH FELLOWSHIP

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

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

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

NEUROSCIENCE FELLOWSHIP IN ANESTHESIA. The Department of Anesthesia of The Pennsylvania State University College of Medicine has a position for a **research fellow in neuroscience** to join a well-established interdisciplinary group of scientists interested in cerebral energy metabolism, anesthesia, metabolic encephalopathies and other states of altered consciousness. The position will be available in June 1987 and is renewable yearly for a maximum of 3 years. A background in biochemistry, neuroscience or physiology is desirable. Interested candidates should send curriculum vitae and names of references to: **Professor Richard Hawkins, Chief, Division of Anesthesia Research, Department of Anesthesia, Pennsylvania State University College of Medicine, P.O. Box 850, Hershey, PA 17033. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIP available in event related magnetic field and EEG/EP assessment of brain function in normals and mentally ill persons. Ph.D. or M.D. with experience in EEG/EPs required. Send curriculum vitae and names of three references to: **Martin Reite, M.D., Department of Psychiatry, Box C268, University of Colorado School of Medicine, Denver, CO 80262. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP in endocrine pathology for 2 to 3 years. Applicants should have a strong background in cell or molecular biology and be interested in applying these skills to the study of pituitary tumors. Contact: **Ricardo Lloyd, M.D., Ph.D., Department of Pathology, 1500 East Medical Center Drive, Ann Arbor, MI 48109-0054.**

POSTDOCTORAL FELLOWSHIP—molecular and cellular aspects of hemostasis/thrombosis. Projects include characterizing the platelet von Willebrand factor receptor, effects of the fibrinolytic system on platelet function, defining platelet-fibrin interactions, modeling clot structure and identifying the effects of clot structure on the fibrinolytic system. A broad range of techniques are employed ranging from molecular biological to biophysical approaches. This position is funded by an NIH institutional training grant. Send curriculum vitae and names of three references to: **Dr. I. David Goldman, Division of Hematology/Oncology, Medical College of Virginia, Box 230, Richmond, VA 23298.**

POSTDOCTORAL FELLOWSHIP in fisheries oceanography is available now at University of Washington. Appointment is for 2 years. Applicant should be either physical oceanographer with interest in fluid dynamics, numerical simulation of hydrodynamic systems, transport mechanisms, to study ocean currents and transport of larval pollock in eastern Bering Sea; or biologist with interest in x-ray microprobe analysis, otolith morphometrics to study stock origins of eastern Bering Sea juvenile pollock. Fellow will work with cooperative group of oceanographers and biologists at University of Washington and NOAA. Send curriculum vitae and names of three references to: **R. C. Francis, Fisheries Research Institute, WH-10, University of Washington, Seattle, WA 98195. The University of Washington is an Affirmative Action/Equal Opportunity Employer.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS in gastroenterological research for 1 to 2 years beginning 1987. Faculty employs multidisciplinary approach using biochemical, immunological, physiological and electrophysiological techniques. Applicant may focus on either clinical or basic studies. Applicants should have M.D. or Ph.D. Send curriculum vitae and names of three references to: **N. F. LaRusso, M.D., Program Director, NIH Training Grant, Mayo Clinic, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Institution.**

POSTDOCTORAL FELLOWSHIP(S)—Comparative studies on sandy coastlines in Southern Africa. Available immediately for 3 years, renewable annually. Salary approximately R25 000 per year. Applicants with experience in benthic and/or phytoplankton ecology, coastal geomorphology or related disciplines should send curriculum vitae and three letters of reference to: **Professor Anton McLachlan, Institute for Coastal Research, University of Port Elizabeth, P.O. Box 1600, Port Elizabeth 6000, South Africa. Telephone 041-531-1425. Applicants will be considered without regard to race, national origin or religion.**

POSTDOCTORAL FELLOWSHIPS: DISORDERS OF IMMUNE REGULATION

Applications are invited from qualified individuals for **postdoctoral training fellowships in DISORDERS OF IMMUNE REGULATION**. A central theme of Class II MHC-dependent, helper T cell dysregulation unites five interactive projects in a federally supported Program Project. Trainees will learn research strategies using the technologies of modern cellular and molecular biology as applied to the study of lymphocytes, accessory cells, and target tissues/organs in the pathogenesis of both human diseases and relevant murine models. Specific projects include Immunopathogenesis of CMV retinitis; Beta Cell Specific T cell Responses in Diabetes; Molecular Biology of B Lymphocytes, and Localized Class II MHC Expression in Graves' Disease; Pulmonary Natural Killer Cells in *Pneumocystis carinii*; and Cellular and Molecular Bases of Acquired Immunologic Tolerance. Applicants with an M.D. and/or a Ph.D. in immunology, microbiology and/or molecular biology are preferred. Highly successful trainees will be encouraged to compete for independent grant support and may be considered for entry level faculty positions in the future. Send curriculum vitae and three letters of reference to: **J. Wayne Streilein, M.D., Principal Investigator, Program Project on Disorders of Immune Regulation, Department of Microbiology and Immunology (R-138), University of Miami School of Medicine, P.O. Box 016960, Miami, FL 33101. Affirmative Action/Equal Opportunity Employer.**

Predocutorial fellowships in anthropology, biomedical engineering, ceramic science and engineering, chemical and biochemical engineering, chemistry, computer science, ecology, food science, geological sciences, mathematics, mechanical and aerospace engineering, mechanics and materials science, microbiology, nutrition, operations research, pharmacology, physics, plant pathology, psychology, statistics, and toxicology.

GRADUATE SCHOOL—NEW BRUNSWICK RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

Outstanding applicants are invited to apply to the above doctoral programs and compete for our Excellence or Marion Johnson Fellowships for the fall semester, 1987. Stipends of up to \$10,000, plus tuition remission, renewable for up to 4 years of full-time study, are available to support high-quality students entering these graduate programs at Rutgers University in New Brunswick. Applicants are required to submit complete transcripts, results of the GRE, and recommendations from individuals who are willing to attest to the strength of the applicant's academic and research potential. Applicant credentials should be submitted before 1 March 1987 to ensure consideration. For application information contact: **The Director, Fellowship Program, Graduate School-New Brunswick, Rutgers University, 25 Bishop Place, New Brunswick, New Jersey 08903, or telephone: 201-932-7034. Equal Opportunity/Affirmative Action Institution.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS IN HEALTH PSYCHOLOGY RESEARCH

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

POSTDOCTORAL FELLOWSHIP (Microbiology): in the Ocular Microbiology Laboratory, Department of Ophthalmology, Baylor College of Medicine, Houston. Opportunity for motivated individual with Ph.D. in microbiology or infectious disease, to be involved in NIH and privately funded studies of the biology and pharmacology of *Acanthamoeba*. Please send curriculum vitae and names of three references to: **K. R. Wilhelmus, M.D., Cullen Eye Institute, One Baylor Plaza, Houston, TX 77030.**

POSTDOCTORAL RESEARCH TRAINING FELLOWSHIPS in developmental psychobiology available for qualified M.D.'s or Ph.D.'s. NIMH-sponsored program includes core curriculum and research opportunities in areas including developmental biochemistry and pharmacology, electrophysiology, cognitive and emotional development, learning disorders, neuromagnetism, behavior and physiology in nonhuman primates, behavioral immunology, and clinical research in infants and children. One-year program with a possible 1-year renewal beginning summer 1987. Apply by 1 March 1987. For information: **Martin Reite, M.D., Department of Psychiatry, Box C268, University of Colorado School of Medicine, Denver, CO 80262. An Affirmative Action/Equal Opportunity Employer.**

VIRAL AND CHEMICAL CARCINOGENESIS UNIVERSITY OF SOUTHERN CALIFORNIA SCHOOL OF MEDICINE

Two fellowships are available early in 1987 in the area of viral and chemical carcinogenesis at the University of Southern California (USC). The fellowships are supported by an NIH training grant and faculty research interests include molecular genetics of human cancer (**W. Benedict**); oncogenes (**S. Rasheed, P. Roy-Burman**); molecular analysis of liver-specific genes (**K. Fournier**); mutagenesis (**J. Landolph, M. Goodman**); DNA methylation (**P. Jones**); neoplastic transformation (**W. Benedict, J. Landolph**); glucose starvation-specific genes (**A. Lee**); tumor proteases (**W. Laug, P. Jones**); and molecular basis of oncogenic transformation (**J. Landolph**).

Interested individuals, who should be U.S. citizens or hold permanent resident visas, should submit their curriculum vitae, together with the names of three references, as soon as possible to: **Dr. William F. Benedict, USC/Childrens Hospital of Los Angeles, 4650 Sunset Boulevard, Los Angeles, CA 90027. Affirmative Action/Equal Opportunity Employer.**

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Applicants for this position should possess a doctoral degree and have postdoctoral experience in plant biochemistry and plant enzymology. Additional experience in molecular biology and protein purification is also desired. Responsibilities will include enzyme isolation and characterization, development of new screens, and investigation of metabolism and mode-of-action of pesticides in plants. The applicant will join a multidisciplinary team studying pesticide-receptor interactions.

Senior Computational Chemist

Applicants for this position should possess a doctoral degree in organic chemistry and have postdoctoral experience in computer science. Prior experience in application of molecular mechanics, quantum mechanics, and molecular modeling to chemical and biochemical problems is desirable. The candidate must have an extensive background in organic chemistry and computer sciences with demonstrated ability to design original software. This Senior Scientist will be part of a multidisciplinary team working to define new concepts for pesticides and will play a key role in guiding chemists and biologists in rational approaches to pesticide design.

Qualified candidates should send their curriculum vitae to:



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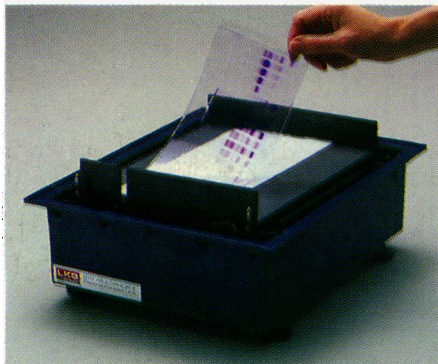
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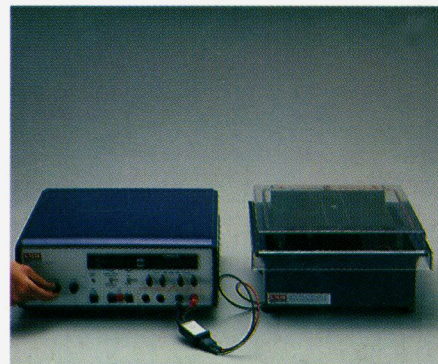
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