

UNISTAT Statistical Package

■ COMPLETE:

UNISTAT is a complete data handling, analysis and presentation package bringing together a spreadsheet, a wide range of statistics and powerful graphics. UNISTAT was first released in 1984.

■ EASY TO USE:

UNISTAT is fully menu / mouse driven, with optional batch processing. There are no complicated commands to learn.

■ CAPACITY:

UNISTAT supports the EMS memory. Up to 32,500 x 32,500 matrices, compute 230 x 230 corr/covar matrices or regressions with 175 variables. 1MB EMS = 250,000 points.

■ DATA HANDLING:

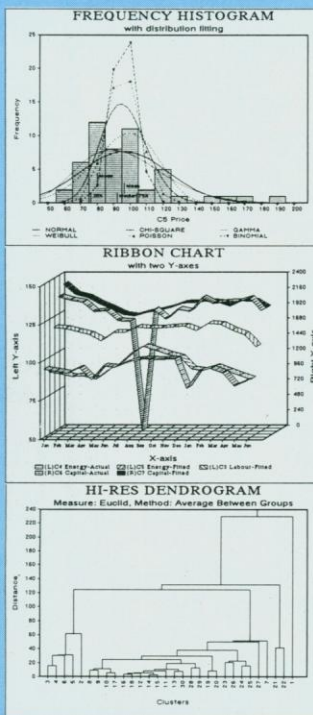
UNISTAT features a TRUE spreadsheet custom designed for statistical data handling. Import/export Lotus, dBase, Syk, DIF, ascii (free or fixed).

■ BREADTH OF COVERAGE:

A vast array of 2-D and 3-D graphics, descriptive statistics, 19 distribution functions, over 40 parametric and non parametric tests, contingency tables, cross-tabulation, break-down, weighted, polynomial, stepwise regressions, balanced/unbalanced ANOVA, ANCOVA.

■ MULTIVARIATE STATISTICS:

This is an optional module for UNISTAT incorporating the full graphical implementations of Cluster, Discriminant, Principal Components, Factor Analyses, Multi-dimensional Scaling and Canonical Correlations.



Call Toll Free 800 783 3210, or write to ADHOC Inc, 28 Brunswick Woods Dr, East Brunswick, NJ 08816. Fax: 908 254 7310

Circle No. 158 on Readers' Service Card

BURN YOUR REFERENCE CARDS!

REF-11TM

Computerizes your REFERENCES
and prepares your BIBLIOGRAPHIES

- ☐ Maintains a data base of references
- ☐ Searches for any combination of authors, years of publication, reference title, publication title, keywords or abstract
- ☐ Formats bibliographies exactly as you want them
- ☐ Reads your paper, inserts citations into the paper, and prepares a bibliography of the references cited (optional)
- ☐ Downloads references from any Online data base including NLM, BRS, DIALOG and Laserdisc formats (optional)

IBM PC/XT/AT, MS-DOS, CP/M 80 ... **\$195.00**

RT-11, TSX-Plus, RSX-11, P/OS **\$250.00**

VAX/VMS (native mode) **\$650.00**

IG SYSTEMSTM ANY MANUAL & DEMO **\$20.00**

322 Prospect Ave., Hartford, CT 06106
(203) 247-8500

Connecticut residents add 8% sales tax.

Circle No. 19 on Readers' Service Card

New Rapid Publication in

METABOLIC BRAIN DISEASE

Currently in its sixth year, *Metabolic Brain Disease* is devoted to experimental and clinical research papers that document metabolic aspects of brain diseases such as epilepsy, stroke, and other metabolic encephalopathies. Manuscripts may now appear in as little as six weeks after acceptance due to the Journal's new, high-quality, camera-ready publication method.

Send Inquiries and Manuscripts to:

Heather Scorgie, Managing Editor
Metabolic Brain Disease
Dept. of Cell Biology and Anatomy
University of Health Sciences/
The Chicago Medical School
3333 Green Bay Road
North Chicago, IL 60064
(708) 578-3210
FAX: (708) 578-3253

Circle No. 189 on Readers' Service Card

DNA by Operon.

**Right Price.
Right Now.** **\$3.60
per base**

Now the world's leading supplier of synthetic DNA is also the price leader. Operon's custom DNA is now \$3.60 per base with a \$20.00 set-up fee per sequence, and free domestic delivery. Same outstanding customer service. Same high product quality. New low price. Call for your free researcher kit.

1-800-688-2248

OPERON

OPERON TECHNOLOGIES, INC.

1000 Atlantic Ave., Suite 108 · Alameda CA 94501
Tel. (415) 865-8644 · Fax. (415) 865-5255—NIHBP 263-00033233

WORLD'S LEADING SUPPLIER OF SYNTHETIC DNA.

Circle No. 135 on Readers' Service Card

Products & Materials

Temperature Cycler

The GENE-TECH Apparatus is a self-contained, economical, programmable temperature cycler for use in the polymerase chain reaction process for amplifying DNA. Built-in Peltier thermo-electric modules al-



low full control of temperature from 4°C to 99°C without the need for an ancillary thermocirculator. The unit has a sample chamber, control key pad, and a wide-angle screen. DNA amplification takes place in 40 by 0.5 ml microcentrifuge tubes or one microtiter plate. Stuart Scientific. Circle 546.

Protein Biotinylation System

A new Protein Biotinylation System can aid researchers preparing biotin conjugates of antibodies and other proteins. The system includes a complete set of reagents for the biotinylation of 50 mg of any protein. It includes a positive control and sufficient reagents for five assays. Gibco BRL. Circle 547.

DNA and RNA Probe System

The AmpliProbe DNA/RNA Probe System is a nonradioactive detection system for all membrane-phase hybridizations. AmpliProbe makes use of patented signal amplification technology, with a chemiluminescent readout, to achieve sensitivity comparable to that of radioisotopes. The process takes the user from hybridization to results in less than 7 hours. Results are recorded on standard x-ray film. ImClone Systems. Circle 548.

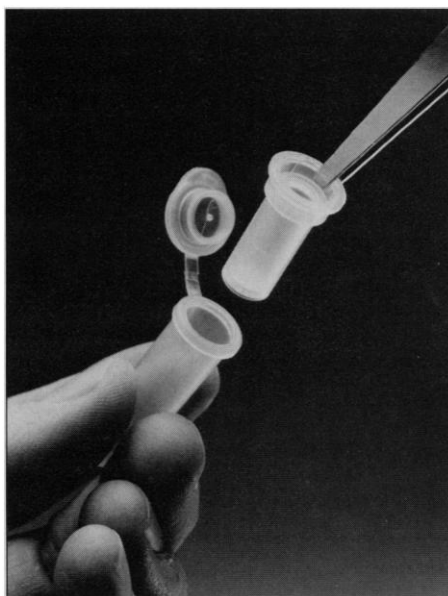
Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement 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.

Radial Arm Maze

A new Eight Arm Radial Maze for rats and mice can be assembled into systems of eight mazes. The animal's behavior is monitored by 16 infrared sensors interfaced to an IBM-compatible computer. The universal maze software provided with the system can be reconfigured for use with figure-8 or other shape mazes. Applications range from behavioral pharmacology and toxicology to experimental psychology. Columbus Instruments International. Circle 549.

Filter for Nucleic Acid Purification

The Ultrafree-Probind Filter Unit has been developed for nucleic acid purification. The device incorporates a specially modified



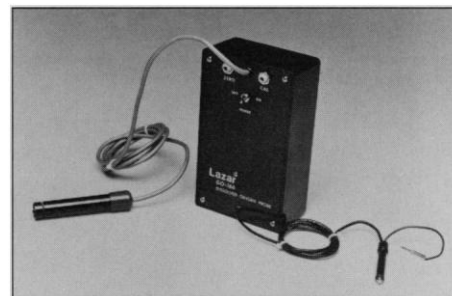
polyvinylidene fluoride membrane that exhibits preferential binding of protein over double-stranded DNA. The unit eliminates the need to perform phenol/chloroform extraction, which involves toxic solvents. Millipore. Circle 550.

Monoclonal Antibody Purification System

The QUICKMab system can purify, desalt, and concentrate monoclonal antibodies from cell culture or ascitic fluid without method development. QUICKMab can purify any class or subclass of antibody including IgG, IgM, IgA, and IgE to greater than 98% purity in about an hour. It purifies antibodies at neutral pH under protein stabilizing conditions. Sterogene Bioseparations. Circle 551.

Dissolved Oxygen Probe

The DO-166 Dissolved Oxygen Probe plugs into any standard pH meter and can measure dissolved oxygen from 0 to 14 ppm



with readability of 0.1 ppm. The probe eliminates the time-consuming wet chemistry involved with the Winkler method. Calibration is quickly done in air. A thermister temperature compensator is incorporated into the head of the probe. The probe comes in 6-, 15-, and 25-foot lengths for field and lab measurements. Lazar Research Laboratories. Circle 552.

Literature

Spectrolinker is a brochure on an ultra-violet cross-linker for use in genetic research. Spectronics. Circle 553.

Protocols and Applications Guide is a 420-page book with detailed protocols and extensive reference information on molecular biology, cellular regulation, eukaryotic gene expression, and protein analysis. Promega. Circle 554.

Factors and Cytokines: The Response Is Overwhelming details more than 70 products, including growth, attachment, and transport factors; cytokines and interleukins; antibodies to factors and cytokines; and lectins. Boehringer Mannheim. Circle 555.

Millipore Direct is a 475-page catalog of compact laboratory water systems, total water systems, environmental test kits, sample preparation devices, and chromatography chemical products. Millipore. Circle 556.

Pore-Trends is a free newsletter that provides technical information on membrane filtration. It includes application notes, new products, and trends in membrane technology. Poretics Corp. Circle 557.

1991 Sigma Molecular Biology Product Guide displays a comprehensive list of products. Sigma Chemical Co. Circle 558.

1991 Cell Biology and Life Sciences Laboratory Equipment features 88 pages of equipment for cell biology, electrophysiology, and cell culture. World Precision Instruments. Circle 559.

AIDS

Books from AAAS

AIDS 1988: AAAS Symposia Papers

Edited by Ruth Kulstad
Foreword by C. Everett Koop

This volume contains many of the groundbreaking papers on AIDS presented at the 1988 AAAS Annual Meeting.

The wide variety of the papers presented here reflects the current thinking about AIDS research today—that control over the AIDS epidemic must be achieved through a collaborative, multi-disciplinary effort that includes not only the medical and biological sciences, but the social and behavioral sciences as well.

This fully indexed volume is organized into five major sections: The first explores the epidemiology and natural history of AIDS and the HIV infection both in the United States and internationally. It also looks at the difficulty of predicting the course of the virus—statistical issues;

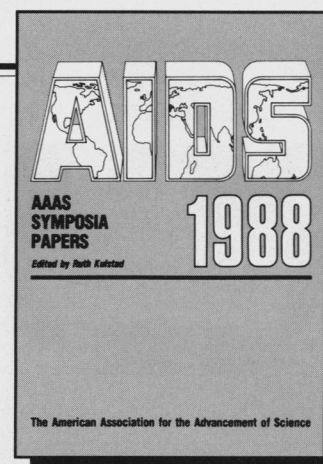
patterns of HIV-1 incubation, infectiousness, and transmission; and approaches to demographic impact modeling.

Section two discusses the social consequences of AIDS as they relate to gender, intravenous drug users, and public policy, and it examines the dilemmas that AIDS presents to the medical community.

The third section focuses on the AIDS prevention strategies currently employed around the world.

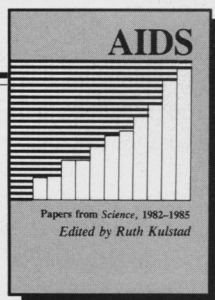
Section four considers the economic, political, ethical and legal issues surrounding the epidemic.

The final section presents several recent medical and biological studies on AIDS and HIV.



AIDS 1988 is a timely, authoritative source of information on the growing body of AIDS research being conducted around the world. It is essential for medical, biological, social, and behavioral scientists, and for everyone who is professionally or personally concerned about the AIDS epidemic.

1988; 478 pp.; softcover
index; 12 appendices
#88-19S - \$29.95 (members \$23.95)
ISBN #0-87168-335-0



AIDS: Papers from Science, 1982-1985

Edited by Ruth Kulstad

This collection includes frequently cited research papers and news reports on AIDS that were published in *Science* between August 1982 and September 1985.

Many of the papers relate directly to AIDS research, while others touch on relevant aspects of the immune system. The news stories help to explain the ongoing research, while focusing on some of the sociological questions raised by the disease. The book is arranged chronologically, enabling the reader to trace the his-

tory of the AIDS epidemic through September 1985—a history that is of great sociological interest.

This fully indexed collection is valuable not only for the experimental data and conclusions, but also as an excellent bibliographic reference of AIDS work in major journals worldwide.

1986; 654 pp.; softcover
detailed indexes and illustrations
#85-23S - \$29.95 (members \$23.95)
ISBN #0-87168-281-8

To order:

AAAS Books, Dept. SM
PO Box 753
Waldorf, MD 20604

By mail, individuals must prepay with check or charge card. By phone, (use VISA/Mastercard only) call 301-645-5643 (9am-4pm ET) and ask for AAAS. By fax, 301-843-0159. Add \$4.00 postage/handling per order. Please specify item number. For shipments to California, add applicable sales tax.

American Association for the Advancement of Science

Education books from AAAS

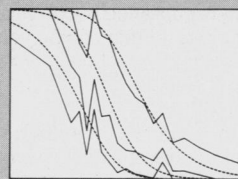
Assessing Higher Order Thinking in Mathematics

Edited by Gerald Kulm

Teaching higher order thinking is essential in today's world. And what is taught must be tested. Unfortunately, most mathematics tests focus primarily on rote computational skills and memorized facts rather than on higher order thinking. This book addresses such concerns. The authors explore new approaches to mathematics assessment, provide directions for reforming mathematics testing, and give examples of innovative test items. It is especially valuable for teachers, test publishers, researchers, and federal and state educational policy makers.

Topics include: A new world view of assessment in mathematics; power items and the alignment of curriculum and assessment; assessing student growth in mathematical problem-solving; computer-based mathematics assessment; calculators and mathematics assessment; students' theories about mathematics and their mathematical knowledge; assessing schema knowledge for arithmetic story problems; critical evaluation of quantitative arguments; investigation of structured problem-solving items; and new directions for mathematics assessment.

Assessing Higher Order Thinking in Mathematics



Edited by Gerald Kulm

1990; 216 pp.; indexed
#89-27S - softcover; \$24.95
(AAAS members \$19.95)

The Liberal Art of Science *Agenda for Action*

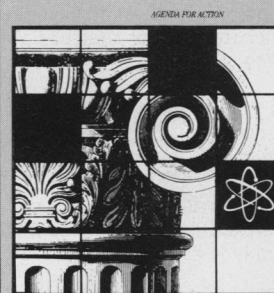
This report presents the conclusions and recommendations of the AAAS Project on Liberal Education and the Sciences. It discusses the level of scientific understanding necessary for optimal participation in 21st century life and the type of undergraduate science education required to achieve such a level of understanding. In addition, this volume supports the idea that science is a liberal art and should be taught as such. It recommends goals for liberal education in the sciences, outlining the multidisciplinary curriculum and teaching strategies necessary to achieve them.

An appendix includes descriptions of existing courses and programs, offered at institutions nationwide, that are consistent

with the project's recommendations. This report is of particular interest to undergraduate science educators as well as to all people committed to quality science education.

Topics include: Agenda for action; faculty responsibility; resource commitment; teaching materials and technologies; assessment instruments; the nature of scientific explanation; historical context; pedagogical techniques; integrating multidisciplinary content; programmatic approaches to liberal education in science; and liberal education for special groups such as future science teachers, the underrepresented in science, people with disabilities, and science and engineering majors.

The Liberal Art of Science



American Association for the Advancement of Science

1990; 142 pp.
#90-13S - softcover; \$12.95
(AAAS members \$10.30)

To order: By mail, individuals must prepay with check or charge card. Send check to AAAS Books, Dept. A4, PO Box 753, Waldorf, MD 20604. By phone, (use VISA/Mastercard only) call 301-645-5643 (9am-4pm ET) and ask for AAAS. By fax, 301-843-0159. Add \$4.00 postage/handling per order. Please specify publication number(s). For shipments to California, add applicable sales tax.

American Association for the Advancement of Science

Science

PERSONNEL PLACEMENT

LINE CLASSIFIED ADVERTISEMENTS

➤ **Deadlines:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Advertisements must be submitted in writing.

➤ **How to Submit a Classified Ad:** Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Deadline for applications stated in ad must be at least 2 weeks after date of publication. Include billing information, and desired publication date.

➤ **Mail or FAX materials to:**
Science Classified Advertising
 1333 H Street, N.W., Room 940
 Washington, DC 20005
 Telephone: 202-326-6555
 FAX: 202-682-0816

➤ **Rates:** Ads are \$41 per line; \$410 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads. If you would like *Science* to give estimated cost, indicate on letter.

➤ **Ads from Outside the U.S.:** Prepayment made in U.S. dollars by checks drawn on U.S. banks is required.

➤ **Credit Cards:** *Science* accepts MasterCard and VISA. Discount does not apply to credit cards.

➤ **Cancellations:** Deadline for cancellation is 10 a.m., Tuesday, 10 days prior to issue date.

DISPLAY PERSONNEL ADVERTISEMENTS

For rates and information about fractional display ads (all ads 1/2 page and larger) and all Marketplace listings, contact:

Scherago Associates
 11 Penn Plaza, Suite 1003
 New York, NY 10001
 Telephone: 212-730-1050
 FAX: 212-382-3725

CONDITIONS: Personnel advertising is accepted only with the understanding that the advertisers do not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap or sexual preference. The AAAS encourages employers to actively recruit and employ underrepresented minority groups. *Science* reserves the right, at its discretion, to decline to publish advertisements submitted to it.

POSITIONS OPEN

ECOLOGIST. The Department of Ecology and Evolution at the University of Chicago seeks to hire an ecologist with interests in evolutionary biology working on plant, animal or microbial species for a faculty position at the **ASSISTANT PROFESSOR** level. To apply please send curriculum vitae, reprints, and a statement of research interests and have three letters of recommendation sent by 15 November 1991 to: Chair, Ecology Search Committee, Department of Ecology and Evolution, The University of Chicago, 940 East 57th Street, Chicago, IL 60637. *Affirmative Action/Equal Opportunity Employer.*

TENURE-TRACK JOINT APPOINTMENT WOMEN'S STUDIES/BIOLOGICAL SCIENCES

The Women's Studies Program, University of Georgia, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level to be jointly appointed between women's studies and an appropriate field. Speciality field must be biologically related and must include women or gender-related topics. Research interests such as animal behavior, anthropology (biological, nutritional, and medical), biochemistry, nutrition, psychology, and zoology are appropriate. Ph.D. degree, promise in research and teaching, and a strong commitment to the development of women's studies are required. Send curriculum vitae, statement of research interests, evidence of women's studies commitment, and names of three referees by 15 November 1991 to: Search Committee, Women's Studies Program, University of Georgia, 230F Main Library, Athens, GA 30602. *The University of Georgia is an Equal Opportunity/Affirmative Action Institution.*

SUNY HEALTH SCIENCE CENTER SYRACUSE FACULTY POSITION IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

We invite applications for a tenure-track position. While we expect to make the appointment at the **ASSISTANT PROFESSOR** level, candidates at higher levels also will be considered. Outstanding candidates in all areas of biochemistry and molecular biology are encouraged to apply. Applicants must have a Ph.D. or equivalent degree in biochemistry or related field, postdoctoral experience, demonstrated research productivity and a commitment to excellence, in teaching medical and graduate students. Send letter of application (with curriculum vitae and summary of research plans) and have three letters of reference forwarded to: Dr. Harvey S. Penefsky, Chair, Search Committee, Department of Biochemistry and Molecular Biology, State University of New York Health Science Center at Syracuse, 750 East Adams Street, Syracuse, NY 13210. Review of applications will begin 6 December 1991 and continue until the position is filled.

An Affirmative Action/Equal Employment Opportunity Employer.

FACULTY POSITIONS UNIVERSITY DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF ARIZONA

The University Department of Biochemistry, which serves the Colleges of Agriculture and Medicine, and the Faculty of Science at the University of Arizona, invites applications for two tenure-track faculty positions at the **ASSISTANT PROFESSOR** level. Applications from candidates with research interests in any area of contemporary biochemistry are welcome. For one position, special consideration will be given to candidates interested in x-ray crystallography of macromolecules. Candidates should have a Ph.D. or equivalent degree and postdoctoral experience. *Applications from women and minorities are especially encouraged.* Applicants should send curriculum vitae, a statement of past research experience and future research plans, and arrange to have three letters of recommendation sent to:

Dr. Michael A. Wells
 University Department of Biochemistry
 Biological Sciences West
 University of Arizona
 Tucson, AZ 85721

Review of applications will begin 15 October 1991, but applications will be accepted until the positions are filled. *An Affirmative Action/Equal Opportunity/Title IX/Section 504 Employer.*

POSITIONS OPEN

DIVISION OF BIOLOGICAL SCIENCES UNIVERSITY OF KANSAS

ASSISTANT PROFESSORSHIPS in **CELLULAR AND DEVELOPMENTAL NEUROBIOLOGY** and **CELLULAR AND DEVELOPMENTAL PHYSIOLOGY**. Applicants for these tenure-track positions must have a Ph.D. in neurobiology, cell biology, or molecular biology (position 1) or cell or developmental physiology (position 2) and relevant postdoctoral experience. Successful candidates will be expected to establish strong independent research programs and be committed to teaching undergraduate and graduate students. Applications will be reviewed starting 1 October 1991, and thereafter until the position is filled. Submit curriculum vitae, a statement of present and future research interests, reprints, and three letters of reference to: Dr. William Dentler, Chair, Search Committee, Department of Physiology and Cell Biology, University of Kansas, Lawrence, KS 66045-2106.

ASSISTANT PROFESSOR, PLANT DEVELOPMENTAL BIOLOGY. Applicants for this tenure-track position must have a Ph.D. in botany or other appropriate field of biology. Successful candidates will be expected to have an established research program focusing on aspects of plant development which contribute to an understanding of whole plant structure. Applicants must also show a commitment to excellence in teaching and to the training of graduate students. Teaching responsibilities will include a course covering basic and contemporary aspects of plant anatomy and participation in an undergraduate majors course on developmental biology. Preference will be given to applicants whose research can interface with the activities of current faculty. Applications will be reviewed starting 15 November 1991, and thereafter until the position is filled. Submit curriculum vitae, reprints, grant proposals and/or manuscripts, a statement of research interests, a statement of teaching philosophy and experience, and at least three letters of reference to: Dr. Craig B. Martin, Chair, Search Committee, Department of Botany, University of Kansas, Lawrence, KS 66045-2106. Telephone: 913-864-3645. *The University of Kansas is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS IN VISION RESEARCH. The Department of Ophthalmology at the University of Alabama at Birmingham (UAB) School of Medicine invites applications for two faculty positions at the **ASSISTANT PROFESSOR** level: (1) cell or molecular biology of the retina, particularly as related to macular degeneration, and (2) neurobiology of the retina. Successful candidates are expected to conduct productive independent research programs. Laboratory space, start-up funds, and the facilities of UAB's interdepartmental Vision Science Research Center are available. Send curriculum vitae, statement of research interests, and three letters of reference by 1 November 1991 to: Dr. Harold W. Skalka, Chairman, Department of Ophthalmology, School of Medicine/Eye Foundation Hospital, University of Alabama at Birmingham, UAB Station, Birmingham, AL 35294. *UAB is an Affirmative Action/Equal Opportunity Employer.*

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) DEPARTMENT OF BIOLOGY

Candidates are sought for two tenure-track faculty positions at the level of **ASSISTANT PROFESSOR**. Candidates should have significant research experience in neurobiology, plant biology, or developmental biology. Approaches should stress genetics, molecular biology, cell biology, or/and biochemistry. The responsibilities of this position include conduct of an active research program and participation in the teaching program of the department.

Applicants should send curriculum vitae and a summary of proposed research, and arrange to have letters sent from at least three scientists who can provide an evaluation of the candidate's accomplishments and future potential for both research and teaching. Applications will not be processed until all letters of reference have been received. Applications and letters should be sent to:

Chairman, Biology Search Committee
 c/o Room 56-511, Department of Biology
 Massachusetts Institute of Technology
 77 Massachusetts Avenue
 Cambridge, MA 02139

MIT is an Equal Opportunity/Affirmative Action Employer.

Help Discover and Develop the 21st Century Drugs:

GENETIC CODE BLOCKERS

Become Part Of The Expanding Scientific Team At Hybridon.

Careers at the interface of organic chemistry and molecular biology permit the rewards of real-time drug discovery. Join our growing team committed to drug development in the broad areas of therapeutics permitted by regulation of gene message with anti-sense oligonucleotide agents.

We are seeking professionals in these areas:

CHEMICAL SCIENCES (PhD's)

Oligonucleotide Synthetic Chemists

- Experience in nucleoside, nucleotide and oligonucleotide chemistry necessary; experience in carbohydrate or heterocyclic chemistry a must

Oligonucleotide Analytical Chemists

- Experience in chromatographic and spectroscopic techniques related to nucleic acids is necessary

Oligonucleotide Scale-up Chemists

- Experience in solid phase synthesis of oligonucleotides is necessary, knowledge of computer software applications to production is desirable

Oligonucleotide Purification Chemists

- Experience in chromatographic techniques related to oligonucleotides is necessary

BIOLOGICAL SCIENCES (PhD's)

Virologists

- Three years' experience in viral infectivity assay, evaluation of anti-viral agents, immuno-chemical and chemical assays in virology and retrovirology

Pharmacokineticist

- Experience in biopharmaceutics, biochemical pharmacology or related drug kinetics and at least five years in pharmacokinetics, pharmacodynamics modeling and drug metabolism

Biochemist

- Must have experience to establish protocols and manage assays of biological and enzymatic activity and analytical bioassays.

Toxicologist/Pharmacologist

- Five years' experience in GLP drug toxicology/pathology evaluations. This is a hands-on and administrative position.

Cell Biologists

- Cell biologists or immunologists preferably with three years' experience for in vitro and in vivo assays of effects of oligonucleotides on cell dynamics and kinetics.

RESEARCH ASSOCIATES

We have a number of positions available for applicants with BS or MS degrees and experience in molecular biology, biochemistry, bioanalytical chemistry, virology, statistics and chemistry.

Hybridon offers highly competitive salaries and benefits, a relocation package, new laboratories and equipment in the modern Massachusetts Biotechnology Research Park. To apply, please send your resume to: Human Resources Manager, Hybridon, Inc., One Innovation Drive, Worcester, MA 01605. An Equal Opportunity Employer.



POSITIONS OPEN

ASSISTANT PROFESSOR IN PLANT MOLECULAR BIOLOGY AT UNIVERSITY OF ILLINOIS AT CHICAGO

Applications are invited for a tenure-track position available beginning fall of 1992 at the assistant professor level in the Department of Biological Sciences at the University of Illinois at Chicago. Candidates with postdoctoral experience and expertise in either higher or lower plants will be considered. The successful applicant will be expected to develop a strong research program in plant molecular biology and to participate in the departmental coursework offerings. Please send curriculum vitae, a statement of research goals and the names and addresses of three referees to:

Plant Molecular Biology Search Committee
c/o Dr. Sidney B. Simpson, Jr., Head
Department of Biological Sciences (M/C 066)
The University of Illinois at Chicago
Box 4348
Chicago, IL 60680

Applications will be accepted until 21 October 1991.

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

ASSISTANT PROFESSOR MEMBRANE BIOLOGY UNIVERSITY OF CALIFORNIA SANTA BARBARA

Applications are invited for a tenure-track position in the Department of Biological Sciences, effective 1 July 1992. An integrative approach to membrane biology using modern biochemistry, structural biology, molecular biology, biophysics, or physiology is desired. Areas of interest include, but are not limited to: membrane-cytoskeletal interactions, membrane turnover and biogenesis, protein trafficking (sorting, targeting, secretion), transmembrane receptors, ion channels, or membrane transport. Only applicants with a strong research record and the ability to develop extramurally supported research programs will be considered. Teaching responsibilities will include undergraduate teaching in cell biology-physiology and graduate teaching in the area of specialty. Ph.D. degree or equivalent and postdoctoral experience are required. Interested candidates should arrange to have curriculum vitae, a statement of research interests, three to five relevant publications, and three letters of reference sent to: **Chairman, Department of Biological Sciences, University of California, Santa Barbara, CA 93106** by 15 November 1991. *The University of California is an Affirmative Action/Equal Opportunity Employer. Proof of U.S. citizenship or eligibility for U.S. employment is required.*

The Seattle Biomedical Research Institute (SBRI) invites applications for the position of **SENIOR SCIENTIST** (Associate or Full Professor level) or **STAFF SCIENTIST** (Assistant Professor level). The successful candidate should have an externally funded research program that is within or complementary to the area of infectious disease, and that employs molecular, biochemical, and/or immunological approaches. SBRI is a private, nonprofit research institute near the University of Washington that conducts basic biomedical research in a cooperative, scientist-oriented environment. Current programs include research on molecular parasitology, hematopoiesis, and immunology. Please send curriculum vitae, a brief statement of proposed research, and three letters of reference, by 15 October 1991 to: **Search Committee, Seattle Biomedical Research Institute, 4 Nickerson Street, Seattle, WA 98109-1651. Equal Opportunity Employer.**

FACULTY/BIOCHEMISTRY

Faculty position in biochemistry available 1 July 1992, at rank of **ASSISTANT PROFESSOR** or higher dependent upon qualifications. Major responsibility is teaching medical biochemistry to osteopathic, podiatric, and physician assistant students. Development of an independent research program is encouraged. Ph.D. in biochemistry required; background in one or more of the other basic medical sciences desirable. Prior teaching experience at college or professional school level desirable. Send curriculum vitae and the names of three references to: **Biochemistry Search Committee, Department of Biochemistry, University of Osteopathic Medicine and Health Sciences, 3200 Grand Avenue, Des Moines, IA 50322.**

POSITIONS OPEN

STAFF SCIENTIST (EQUIVALENT TO ASSISTANT/ ASSOCIATE PROFESSOR) SENIOR SCIENTIST (EQUIVALENT TO FULL PROFESSOR)

WEIS CENTER FOR RESEARCH GEISINGER CLINIC

We are seeking a cell biologist, biochemist or molecular biologist with an imaginative established research program related to mammalian cell physiology, growth, differentiation or development. The Weis Center is a fully equipped basic research facility currently staffed by approximately 50 scientists and support personnel. The research building was completed in May of 1987, and is designed to accommodate 20 separate laboratories. Scientists are provided with generous institutional funds for start-up, salaries, postdoctoral fellows, research technicians, supplies and equipment. The Geisinger Medical Center is located in an attractive rural setting in central Pennsylvania, within driving distance of New York City, Philadelphia, and Washington, D.C. It is affiliated with the Jefferson Medical College, and there are several colleges and universities nearby. Employment should begin on or before 1 July 1992. Applications will be accepted until the position is filled. Curriculum vitae, statement of research interests, and names of three references should be sent to: **Dr. Howard E. Morgan, Senior Vice President for Research, Weis Center for Research, Geisinger Clinic, Danville, PA 17822-2601. Equal Opportunity Employer, M/F/H/V.**

FACULTY POSITIONS IN CELL BIOLOGY AND GENETICS UNIVERSITY OF UTAH

The biology department at the University of Utah seeks applications for two tenure-track positions, one in the area of cell biology and one in genetics. While the positions are nominally at the **ASSISTANT PROFESSOR** level, more senior applicants will also be considered. Interested individuals should submit curriculum vitae, three letters of reference, and a statement of research interests to the appropriate search committee. Review of applications will begin on 15 October 1991, and continue until the positions are filled.

Dr. Baldomero Olivera
Cell Biology Search Committee

or
Dr. John S. Parkinson
Genetics Search Committee
Biology Department
University of Utah
Salt Lake City, UT 84112

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

ASSISTANT PROFESSOR HARVARD MEDICAL SCHOOL DEPARTMENT OF BIOLOGICAL CHEMISTRY AND MOLECULAR PHARMACOLOGY (BCMP)

The Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, invites applications for two tenure-track positions at the assistant professor level.

We seek individuals with strong experimental backgrounds in biochemistry, molecular biology and molecular pharmacology, and a commitment to excellence in research and teaching. We are particularly interested in applicants with expertise in membrane biology, receptor-ligand interactions and signal transduction processes for one position. Applicants should submit, prior to 15 November 1991, curriculum vitae, bibliography, statement of research plans and arrange for three letters of recommendation to be sent to: **Professor Christopher T. Walsh, Chairman, BCMP, Harvard Medical School, 240 Longwood Avenue, C1-213, Boston, MA 02115.**

Harvard University is an Equal Opportunity/Affirmative Action Employer and encourages the applications of qualified women and minorities.

POSITIONS OPEN

BIOLOGICAL CHEMISTRY—ASSISTANT PROFESSOR. University of Florida (UF). The Department of Chemistry invites applications for a tenure-track position at the assistant professor rank starting in 1992-93. Evidence of ability to establish and conduct an innovative and vigorous research program and to help expand our biochemistry curriculum at the undergraduate and graduate levels is required. This position represents a continued expansion as part of a new initiative in the area of biological chemistry, in conjunction with UF's Interdisciplinary Center for Biotechnology Research (ICBR). Applicants should send curriculum vitae, research plans, and teaching interests, and arrange to have three letters of reference forwarded to: **Professor Richard A. Yost, Search Committee Chairman, Department of Chemistry, University of Florida, Gainesville, FL 32611.** Deadline for applications is 31 October 1991. *The University of Florida is an Affirmative Action/Equal Opportunity Employer.*

DEVELOPMENTAL BIOLOGY

The Department of Biological Sciences invites applications for a tenure-track position, at the **ASSISTANT PROFESSOR** level, in the area of developmental biology. The position requires a Ph.D., or equivalent, and significant postdoctoral experience. We are particularly interested in candidates who use molecular genetic approaches, in a model eukaryotic organism, to investigate problems in cell biology, developmental biology, or neurobiology.

The position entails participating in teaching at the graduate and undergraduate levels. Applicants should send curriculum vitae, containing a statement of future research and teaching interests, and have three letters of reference sent directly to the search committee chair. Application review will begin on 15 October 1991.

Address: **Dr. Victor Ambros, Chair, Developmental Biology Search Committee, Department of Biological Sciences, Dartmouth College, 6044 Gilman, Hanover, NH 03755-3576. FAX: 603-646-1347.**

Dartmouth is an Equal Opportunity/Affirmative Action Employer.

BIOLOGICAL PSYCHOLOGY

The Department of Psychology, University of Wisconsin-Madison, anticipates making one or more faculty appointments beginning August 1992. One of the appointments is in biological psychology, at the **ASSISTANT PROFESSOR** level. Candidates working on any aspect of the biological bases of behavior, including animal behavior, neuroethology, behavioral neuroscience, etc. will be considered.

Curriculum vitae plus three letters of evaluation and selected reprints should be sent to: **Search Committee, Biological Psychology, Department of Psychology, University of Wisconsin-Madison, 1202 West Johnson Street, Madison, WI 53706.** *The University of Wisconsin-Madison is an Equal Opportunity/Affirmative Action Employer and especially encourages women and minorities to apply.* To ensure consideration, applications should be received by 1 November 1991.

FACULTY POSITION IN PHARMACOLOGY

Applications are invited for a tenure-track position at the level of **ASSISTANT PROFESSOR**. Candidates should document experience in the broad area of molecular pharmacology. The position requires a Ph.D. degree, preferably in pharmacology, with proven accomplishments in modern areas of molecular pharmacology. Areas of special interest are receptor structure and function, nucleic acid metabolism, signal transduction, and toxicology.

Clear capabilities for generating extramural research support and for working as an independent investigator are critical factors in the selection process. Start-up funds are available and salary will be competitive. The successful applicant will participate in teaching pharmacology to graduate and medical students.

Please send curriculum vitae, three representative reprints, and the names and addresses of three references to: **Dr. Elliot S. Vesell, Department of Pharmacology, Pennsylvania State University College of Medicine, Hershey, PA 17033.** Applications must be received no later than 13 December 1991.

*An Affirmative Action/Equal Opportunity Employer.
Women and minorities are encouraged to apply.*

Battelle: Where your ideas become reality.



Energy Sciences Department

Battelle, Pacific Northwest Laboratories, has been developing solutions to complex problems for over 60 years. Last year alone, we conducted over 1,700 research programs, valued over \$350 million, for more than 94 federal agencies, 302 industry clients, 9 foreign countries and several U.S. states.

The staff of our Energy Sciences Department focuses its expertise on the design and operating efficiencies of energy utilizing and producing systems. Our mission is to develop new and novel approaches that improve the efficiency of energy conversion, transmission, storage, and end use. To do this, we require world-class capabilities in:

- **Power Systems Analysis**
- **Thermodynamic Systems**
- **Energy System Design and Operation**
- **Building Thermo-physics and Evaluation**
- **Performance Measurement and Evaluation**
- **Demand-Side Management Optimization**
- **Alternative Energy Concepts**

Our location in the Tri-Cities area of southeastern Washington provides an outstanding quality of life, excellent schools, low cost of living, and numerous recreational opportunities. If you'd like to contribute to our exciting work in Energy Sciences, send your resume to: **Battelle, Pacific Northwest Laboratories, Staffing Center, P.O. Box 1406, Dept. #1170, Richland, WA 99352. FAX (509) 376-9099.** We are an Equal Opportunity Employer. U.S. citizenship is required.



Battelle

...Putting Technology To Work

A New Matrix For Success!

The Du Pont Merck Pharmaceutical Company is driven by creative and innovative science to help meet society's healthcare needs through the discovery of novel pharmaceuticals. We currently have exciting and challenging positions for:

SENIOR RESEARCH SCIENTIST Cancer Research Group

The Cancer Group is seeking a Ph.D. scientist with a minimum of 2 years postdoctoral experience to be part of a multi-disciplinary approach to drug discovery. The candidate should have demonstrated skills in biochemical pharmacology or biochemistry with some experience in tumor or cell biology. The candidate will work as part of a team to define mechanisms of actions of novel therapeutic agents and participate in the discovery of new mechanism-based agents. Candidates with more experience will also be considered.

BIOLOGIST/PHARMACOLOGIST Cardiovascular Diseases Research Group

In this role, you will be involved in drug discovery and will execute and analyze cardiovascular, pulmonary and renal experiments. Candidates will have an M.S./Ph.D. in biology and experience with in vitro preparation and in vivo techniques. Must be willing to learn new skills. Both strong communication and interpersonal skills are also required.

Our location, near Wilmington, DE, offers an attractive lifestyle with easy access to all the cultural, academic and recreational activities of the Eastern Seaboard. The Du Pont Merck Pharmaceutical Company can offer you an excellent compensation and benefits package. Qualified candidates should send a resume to: Manager of Human Resources, The Du Pont Merck Pharmaceutical

Company, Dept. SCI-0913, Barley Mill Plaza, Bldg. 25, Wilmington, DE 19899. An Equal Opportunity Employer M/F.

**DU PONT
MERCK**

The Du Pont Merck Pharmaceutical Company
Merging Strengths...Emerging Opportunities.

POSITIONS OPEN

FACULTY POSITION DEPARTMENT OF BIOCHEMISTRY

A tenure-track faculty position at the **ASSISTANT PROFESSOR** level is available in the Department of Biochemistry at Baylor College of Medicine. Research interests of the biochemistry faculty include protein structure and function, gene expression, cell cycle control, molecular embryology, mechanism of recombination, and signal transduction. Baylor College of Medicine offers an excellent opportunity to build a program within a large and interactive research community. Highly qualified individuals should send their curriculum vitae, a brief statement of future research plans, and the names of three references to:

Search Committee
Department of Biochemistry
Baylor College of Medicine
One Baylor Plaza
Houston, TX 77030
Equal Opportunity Employer.

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

Duke University Comprehensive Cancer Center invites applications for tenure-track positions in the Section of Cell Growth, Regulation and Oncogenesis at the level of **ASSISTANT PROFESSOR**. Research within the section is focused on the genes and biochemical pathways that regulate cell growth and the molecular analysis of the disruption of such controls in cancer cells. Investigators working at the molecular level on signal transduction, oncogenes/antioncogenes, angiogenesis, metastasis, and apoptosis are especially encouraged to apply. Minimally, applicants must have a doctorate, and 2 years of postdoctoral training. Candidates must have demonstrated high potential for imaginative, substantial independent research. Successful candidates will also be appointed into a basic science department within the Medical Center.

Applicants should send curriculum vitae and a brief description of present and proposed research to: **Dr. Robert M. Bell, Head, Section of Cell Growth, Regulation and Oncogenesis, Duke Comprehensive Cancer Center, Box 3686, Durham, NC 27710**. Applicants should arrange for three or more letters of recommendation to be forwarded to the same address.

To be assured of full consideration, the applications should be received by 1 December 1991.

Duke University is an Equal Opportunity/Affirmative Action Employer.

DEPARTMENT OF PHYSIOLOGY—ASSISTANT PROFESSOR—FACULTY POSITION, cellular and molecular physiology. The Department of Physiology, University of Wisconsin—Madison, invites applications for a tenure-track, junior level faculty position with emphasis on cardiovascular physiology. The search will favor individuals whose research involves biochemical, biophysical or molecular biological probes of cellular and molecular processes. Opportunities for participation in campuswide interdisciplinary research and training programs are excellent. *Women and minorities are especially encouraged to apply.*

Applicants should send curriculum vitae, a summary of research interests and plans, and three letters of reference to: **Dr. Richard L. Moss, Chair, Department of Physiology, University of Wisconsin, 1300 University Avenue, Madison, WI 53706**. Deadline for application is 1 November 1991. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSISTANT/ASSOCIATE PROFESSOR. To conduct research on scrapie in sheep. For information, contact: **Animal, Dairy and Veterinary Science Department, Utah State University (USU), Dr. Jay Call, 801-750-1885**, by 1 November 1991. *USU is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

The Department of Biological Sciences, University of Illinois at Chicago (UIC), has a tenure-track position at the **ASSISTANT PROFESSOR** level for a neurobiologist using modern cellular and/or molecular approaches to problems that may involve: neurophysiology; neurodevelopment; neurogenetics; or intercellular or intracellular communication. The successful candidate will be expected to develop a strong research program and contribute to teaching of undergraduate and graduate students in the neurobiology program. Consideration of candidates will begin on 15 October 1991; application deadline is 22 November 1991. Candidates should send curriculum vitae, a brief statement of research plans, and the names and addresses of three referees to:

Neurobiologist Search Committee
c/o Dr. Sidney B. Simpson, Jr., Head
Department of Biological Sciences (M/C 066)
The University of Illinois at Chicago
Box 4348
Chicago, IL 60680

UIC is an Affirmative Action/Equal Opportunity Employer.

ACADEMIC POSITIONS

ASSISTANT PROFESSORSHIPS. The Department of Chemistry and Biochemistry of The University of Texas at Austin solicits applications for tenure-track assistant professorships anticipated to be available September 1992. Exceptional candidates in all areas of chemistry/biochemistry will be considered. Candidates who have demonstrated outstanding research ability and show promise in teaching should forward curriculum vitae, short descriptions of research plans, and three letters of reference by 1 November 1991 to: **Search Committee, Department of Chemistry and Biochemistry, The University of Texas at Austin, Austin, TX 78712**. *Equal Opportunity/Affirmative Action Employer.*

DEVELOPMENTAL BIOLOGIST. The Department of Biology, Vanderbilt University, invites applications for a tenure-track position in developmental biology at the level of **ASSISTANT PROFESSOR**. The successful candidate will be expected to develop a strong externally funded research program studying cellular or molecular aspects of development in either plants or animals. Teaching responsibilities will complement the needs of the department, and will include a course in the candidate's area of specialization. Applicants should submit curriculum vitae and a description of research interests, and arrange to have three letters of recommendation sent by 30 November 1991 to: **Developmental Biology Search Committee, Department of Biology, Box 1812 B, Vanderbilt University, Nashville, TN 37235**. *Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.*

WATERSHED MANAGEMENT RESEARCH ASSISTANT PROFESSOR

Candidates sought with demonstrated expertise in formulation, verification, application of ecosystem models and geographic information systems to natural resource issues. Earned doctorate with emphasis on interdisciplinary training relevant to issues in watershed management (forestry, ecology, geology, hydrology, or quantitative sciences). Three-year, nontenured-track position. Send letter of application, transcripts, résumé, a statement of how modeling-gis can address land-water interactions and three references to: **Dr. Robert J. Naiman, Director of Center for Streamside Studies, College of Forest Resources, AR-10, University of Washington, Seattle, WA 98195**. Closing date: 29 October 1991.

ASSISTANT OR ASSOCIATE PROFESSOR, Harvard Medical School. The Department of Anatomy and Cellular Biology at Harvard Medical School invites applications for two positions at the Assistant or Associate Professor level. Applicants should have an active research program in the general area of cellular, developmental or reproductive biology. Applicants should be willing to teach in an innovative 8-week course on microscopic and gross anatomy for medical students, and to participate in the graduate student teaching program. Send curriculum vitae, a brief statement of research interests and four letters of recommendation by 15 November 1991 to: **The Search Committee, Department of Anatomy and Cellular Biology, Harvard Medical School, 220 Longwood Avenue, Boston, MA 02115**. *Harvard University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR. The Department of Pathology, Brigham and Women's Hospital and Harvard Medical School, invites applications for a tenure-track position to join an expanding departmental division concentrating on cancer biology. The department offers excellent facilities, trainees, and experimental materials through its own programs and affiliations with the Dana-Farber Cancer Institute, Children's Hospital, and the Harvard Medical School. Applicants should have postdoctoral training, preferably of a molecular nature, in a field relevant to cancer. Some teaching and/or clinical supervision will be involved, depending on the applicant's background and expertise. Send curriculum vitae and the names of three references to: **Drs. Ramzi S. Cotran or Jeffrey Sklar, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115**. *Applications from minority and women candidates are encouraged.*

YALE UNIVERSITY SCHOOL OF MEDICINE CLINICAL MICROBIOLOGIST

The Department of Laboratory Medicine at Yale University School of Medicine has an opening at the rank of **ASSISTANT/ASSOCIATE PROFESSOR** with clinical responsibilities as Assistant Director of the Clinical Microbiology Laboratory at Yale-New Haven Hospital. The successful candidate will be expected to establish a research program, participate in the direction of the Clinical Microbiology Laboratory, and teach residents and medical students. We prefer applicants who are Board-certified or Board-eligible in clinical pathology and/or medical microbiology. Candidates must have M.D./Ph.D., M.D., or Ph.D. degree. Send curriculum vitae and addresses of three references to: **Stephen Edberg, Ph.D., Chair, Search Committee, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510** before 31 October 1991. *Yale is an Equal Opportunity/Affirmative Action Employer. Women and minority applicants are encouraged to apply.*

FACULTY POSITIONS OREGON HEALTH SCIENCES UNIVERSITY

The Oregon Health Sciences University is building additional facilities and is seeking new faculty for an expanding program in basic science research. Over the next 12 to 18 months several new faculty will be added in concert with the completion of a new building. Depending on rank, individuals will be expected to develop or transfer active research programs, be willing to participate in teaching, and to interact with other faculty in a vigorous research environment. Space, start-up funds and salaries are competitive.

• **Department of Microbiology and Immunology—SENIOR IMMUNOLOGIST**. The Department of Microbiology and Immunology has been newly reorganized and staffed to emphasize the molecular basis of microbial pathogenesis and immunity. This active and expanding department is now recruiting a **FULL OR ASSOCIATE PROFESSOR** with an outstanding record in the field of immunology. Special consideration will be given to individuals studying the molecular aspects of antigen processing and presentation. The applicant must have a record of substantial accomplishment as demonstrated by publications in major scientific journals and a history of continuous grant support from national agencies. Interested persons should send their curriculum vitae, statement of research interest and names of three references to: **M. B. Rittenberg, Search Committee, Department of Microbiology and Immunology, Oregon Health Sciences University, 3181 Southwest Sam Jackson, Portland, OR 97201**.

• **Department of Cell Biology and Anatomy—CELL AND MOLECULAR BIOLOGIST**. The faculty of the Department of Cell Biology and Anatomy is focused on molecular mechanisms of cellular control. This active department is seeking an **ASSISTANT OR ASSOCIATE PROFESSOR**, whose research interests lie in areas such as the control of growth and differentiation, intracellular trafficking, or the regulation of gene activity. Individuals working in either higher or lower eukaryotes are encouraged to apply. Applicants at the associate professor level should have an established research program with extramural funding. Interested persons should send their curriculum vitae, a statement of research interest and names of three references to: **C. Enns, Search Committee, Department of Cell Biology and Anatomy, Oregon Health Sciences University, 3181 Southwest Sam Jackson, Portland, OR 97201**. *An Equal Opportunity Employer.*



The Swiss Federal Institute of Technology Zurich (ETHZ) invites applications for a

Faculty Position in Organic Chemistry

Research will focus on the preparative aspects of organic chemistry, either methods-based or target-oriented. Teaching duties comprise courses in organic chemistry at all university levels.

Candidates must have worked successfully in research for several years. They are further expected to be skilled teachers and should be willing to interact with colleagues within and outside the ETHZ.

Please submit your application together with a detailed résumé and a list of publications to the **President of ETH Zurich, Prof. Dr. J. Nüesch, ETH Zentrum, CH-8092 Zurich, no later than October 15, 1991.** In its effort to increase the number of women in academic top positions, the ETHZ specifically invites applications from women.

DISCOVER ABBOTT'S COMMITMENT TO RESEARCH.

Begin a career with Abbott Laboratories, a company that committed over \$500 million to R&D last year alone. As a Fortune 100 health care pioneer, we can offer you the support of our worldwide leadership and the challenge to start your career right.

CELL BIOLOGIST

We're currently seeking a recent Ph.D. graduate in Cell Biology to join our Department of Cellular and Microscopic Research. The selected individual will help establish a new cell biology research program consistent with the department's on-going drug localization and ultrastructural pathology activities.

The ideal candidate will have leadership potential, broad academic exposure to classical cell biology concepts and some hands-on electron microscopy, bioassay, cell culture, cytochemistry, and cytotoxicity assay experience. This opportunity may begin as a renewable postdoctoral appointment or as a permanent position for the more experienced applicant.

Abbott offers an excellent salary and benefits package including profit sharing and a stock retirement plan. We are located in an attractive area approximately 30 miles north of Chicago. For consideration, please send a resume to: **Patricia Handy, Corporate Placement, Job #53376, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064.** Abbott is an Affirmative Action Employer/Smoke-Free Environment.

ABBOTT LABORATORIES



Experience The Abbott Edge.

FACULTY POSITIONS

Plant Molecular Biologist

The Department of Molecular Genetics and Cell Biology invites applications for new faculty positions in the field of molecular biology of plants at the assistant professor level, although exceptional candidates at any level will be considered. We are especially interested in candidates using developmental genetic approaches to understand pattern formation, but the quality of the research program and its relationship to existing strengths in the Department will be the most important considerations. Complete applications with three letters of recommendation should be sent by November 1, 1991 to:

Dr. Anthony P. Mahowald
Chairman, Department of Molecular Genetics
and Cell Biology
THE UNIVERSITY OF CHICAGO
920 E. 58th St.
Chicago, IL 60637

An Affirmative Action Equal Opportunity Employer
(Women and members of minority groups are strongly encouraged to apply)



U.S. Arms Control and Disarmament Agency Physical Scientist, GS-15 \$61,643-\$80,138

The U.S. Arms Control and Disarmament Agency is seeking an outstanding nuclear scientist or engineer to serve as a national/international authority in the development and implementation of nuclear nonproliferation policy. This policy is designed to decrease the likelihood of additional countries or of subnational groups acquiring nuclear explosives. The successful candidate for this senior position should combine a strong scientific background with an interest in foreign policy applications. Ideally, applicants will combine an understanding of scientific and engineering principles and of political decision-making, especially in the area of arms control. U.S. citizenship and Top Secret level security clearance by ACDA are required before entry on duty. Applicants should contact Mr. Wiles at (202) 647-2034 for a vacancy announcement and submit form SF-171 before September 30, 1991.

EQUAL OPPORTUNITY EMPLOYER

Science at Synergen

Synergen, a biotechnology company located in Boulder, has three products in clinical trials with many promising applications for some serious human medical conditions — everything from cystic fibrosis and genetic emphysema to rheumatoid arthritis and septic shock. All this combined with strong financial backing and top scientific talent means there's never been a better time to join us.

QC Biochemist

If you have a Ph.D. in biochemistry or a related field and two years of pharmaceutical experience, explore this opportunity to assist in managing and building a QC/analytical team. You'll be responsible for developing and validating analytical tests on biotech products, ensuring that all procedures follow FDA guidelines and cGMP regulations. You must have a strong working knowledge of HPLC, gel electrophoresis, enzymatic assays, ELISA, DNA assays and LAL tests.

Research Associates

We're looking for individuals well-versed in performing tests using HPLC, gel electrophoresis, enzymatic assays, ELISA, DNA assays or LAL test. You must have a bachelor's degree in life or health science and a minimum of two years of related experience.

Synergen is your chance to make an immediate contribution in an open, non-traditional work environment. You'll enjoy competitive salaries, generous benefits, corporate financial stability and all the opportunities that life in the Boulder area has to offer. Simply send your résumé to Synergen, Inc., Director of Recruitment, Box AT 1885, 33rd Street, Boulder, Colorado 80301. All résumés will be held in confidence. We're an equal opportunity employer.



POSITIONS OPEN

FACULTY POSITIONS ASSISTANT/ASSOCIATE/FULL PROFESSOR DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE

Applications and nominations are invited for tenure-track faculty positions for September 1992. We are seeking candidates who are using contemporary approaches to investigate problems in the general areas of cell growth control and differentiation, enzymology, and structural biology. Applicants in other areas will also be considered. Applicants should have a Ph.D., postdoctoral experience, a strong record of research accomplishments, and demonstrable potential for the development of an independent research program. At the tenured level, applicants must have a strong record of research accomplishment. The department consists of 19 full-time faculty and has hired several new faculty in recent years. The department and college are well equipped and have research support facilities that include nucleic acid and protein synthesis and sequencing, NMR, EM, etc. Applications should include curriculum vitae, a summary of current and future research plans and the names of at least three individuals for references. Application deadline is 31 December 1991.

Send applications or nominations to:

Chairman, Search Committee
Department of Biochemistry (M/C 536)
University of Illinois College of Medicine
1853 West Polk Street
Chicago, IL 60612

Affirmative Action/Equal Opportunity Employer.

MOLECULAR CARDIOBIOLOGY BOYER CENTER FOR MOLECULAR MEDICINE YALE UNIVERSITY SCHOOL OF MEDICINE

The Yale University School of Medicine is seeking applicants at the level of ASSISTANT OR ASSOCIATE PROFESSOR for the Molecular Cardiobiology Program in the newly created Boyer Center for Molecular Medicine. Research in the program will focus on the general area of endothelial cell pathobiology. Applicants should have research experience in one of the following areas: cell surface adhesion and homing proteins, growth factors and their receptors, immunological reactions and inflammation, angiogenesis, hemostasis, or some aspect of vascular differentiation. M.D. or Ph.D. appointees will hold regular faculty positions in one of the existing departments of the School of Medicine.

Salary and partial research support will be provided. Curriculum vitae and three letters of reference should be submitted by 1 January 1992 to:

Jordan S. Pober, M.D., Ph.D.
Chair, Molecular Cardiobiology
Search Committee for the
Boyer Center for Molecular Medicine
Yale University School of Medicine
454 BCMM
295 Congress Avenue
P.O. Box 9812
New Haven, CT 06536-0812

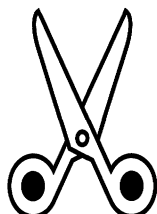
Yale University is an Equal Opportunity/Affirmative Action Employer.

PENNSYLVANIA STATE UNIVERSITY BIOLOGY FACULTY POSITIONS

The Department of Biology, Pennsylvania State Commonwealth Educational System, invites applications for three tenure-track positions available August 1992.

Altoona Campus, Altoona, Pennsylvania, and Mont Alto Campus, Mont Alto, Pennsylvania: positions require teaching general biology, anatomy and physiology. Fayette Campus, Uniontown, Pennsylvania: position requires teaching general biology and genetics; an ecology background desirable.

Candidates must have Ph.D. degree. Continuing scholarly activity, including research and publication, will be required. Salary and rank commensurate with qualifications. Application deadline: 1 November 1991 or until suitable applicants are found. Separate application materials are required for each campus. Send curriculum vitae, transcripts, statements of research goals and teaching philosophy, and three letters of reference to: Search Committee, Box G, 208 Mueller Laboratory, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.



SCIENCE

CLIP AND FAX CLASSIFIED AD ORDER FORM

To: Science Classified Advertising

From: _____

Phone: (____) _____

Please publish attached ad in

☐ Next available issue ☐ The issue(s) of _____
(give date or dates)

Send invoice to:

Name _____

Organization _____

Address _____

City _____ State _____ Zip _____

Purchase Order Number _____

Simply send completed form and ad text to be published
(double-spaced without abbreviations, please) to:

FAX NUMBER 202-682-0816

POSITIONS OPEN

PRESIDENT-CEO CORIELL INSTITUTE FOR MEDICAL RESEARCH

The President reports to an active and supportive Board of Trustees but has full responsibility and authority as our Chief Executive Officer to manage the scientific and administrative affairs of our laboratory.

Our present staff is aware of this search. This is an excellent and rewarding opportunity for a "take charge" scientist/manager with an entrepreneurial desire to run and develop his/her own laboratory.

Coriell occupies a new 46,000-square-foot laboratory facility on the campus of the University of Medicine and Dentistry of New Jersey adjacent to the Cooper Hospital/University Medical Center.

Coriell is currently under long-term contract to maintain the NIGMS Human Genetic Mutant Cell Repository, the NIA Aging Cell Repository, and the NIMH National Mental Health Cell Repository which serve as resources to research scientists worldwide. A developing, vigorous basic research program focuses on cancer, genetic defects, heart, infectious diseases, and diseases of aging.

Candidates should contact:

Chairman, Search Committee
c/o Brian Kaiser, Director of Personnel
Coriell Institute for Medical Research
401 Haddon Avenue, Camden, NJ 08103
Telephone: 609-757-4824

An Affirmative Action/Equal Opportunity Employer.

DEAN GRADUATE SCHOOL OF EDUCATION UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA)

Applications and nominations are invited for the position of Dean of the Graduate School of Education at UCLA, effective 1 July 1992. The dean has responsibility for the academic and administrative operation of the school, which currently has some 60 faculty positions and 700 graduate students, as well as a range of specialized research centers. The Dean also carries the administrative responsibility for various associated professional programs (including the University Elementary School, with a full-teaching staff of approximately 25, and the Center for Academic Inter-institutional Programs, an in-service teacher education program). The school grants the Ph.D., Ed.D., M.Ed., and M.A. degrees, and maintains active professional relationships with school systems in the state and the nation.

The dean participates in campus-wide planning and is responsible for supervision of the school's budget, allocation of resources, development and administration of academic and research programs, alumni relations and development, and direction of the school's professional relations. The qualifications must include the capacity to exercise policy leadership not only locally, but at the state, national, and international levels. Applicants should have academic qualifications appropriate to the rank of full professor and strong scholarly visibility within the educational research community. Salary will be commensurate with background and experience.

To be ensured of full consideration, nominations and letters of application should be sent by 31 October 1991 to: GSE Dean Search Committee, c/o Connie Chittick, Office of the Chancellor, University of California, Los Angeles, CA 90024. *UCLA is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT CENTER DIRECTOR CENTER FOR BUILDING SCIENCE

The Center for Building Science, in the Energy Environment Division of Lawrence Berkeley Laboratory, coordinates three broad research programs in the areas of: building technologies, indoor environment, and energy analysis. In this career position, you'll assist the Center Director in coordinating research, developing initiatives, maintaining relations with other institutions, and hosting meetings. You'll coauthor review papers for technical journals, semi-technical papers for magazines such as *Scientific American*, and popular articles. Possibility of independent research on a part-time basis. Requirements: Ph.D. (preferred) and experience in science, engineering, energy and resources, or public policy. For full job description call 415-486-4226, or send résumé to: Lawrence Berkeley Laboratory, Job #B/6737 Employment Department, 90/1042, One Cyclotron Road, Berkeley, CA 94720. *We are an Equal Opportunity Employer. Women and minorities are encouraged to apply.*



Assistant Director, Ophthalmic Pharmaceutical Research

Develop A Glaucoma And Anti-Infective Research/Screening Program For A Leader In Ophthalmic Pharmaceuticals.

Storz Ophthalmic Pharmaceuticals, a division of American Cyanamid Company, is a leading developer and manufacturer of ophthalmic pharmaceuticals in the U.S.

An opportunity has been created for an experienced Scientist to serve as the Assistant Director of Ophthalmic Pharmaceutical Research responsible for the development of a research/screening program to identify product candidates for the treatment of glaucoma and ocular infections.

Your qualifications must include a Ph.D. in pharmacology, biochemistry or a related field and 5-10 years' experience in ophthalmic research, preferably dealing with glaucoma or anti-infective research. Related industry experience as well as experience with animal models of glaucoma is preferred.

This position offers excellent opportunities for growth along with a competitive salary and comprehensive benefits. For consideration, send resume with salary history to: Director, Personnel, Room 3098F, American Cyanamid Company, One Cyanamid Plaza, Wayne, NJ 07470. Equal opportunity/affirmative action employer.

POSTDOCTORAL FELLOW POSITIONS

University of Minnesota Army High Performance Computing Research Center (AHPCRC)

The AHPCRC runs an interdisciplinary research program that focuses on the high performance computational aspects of engineering, physical sciences, computer science and mathematics. The primary computational system is a 32K Connection Machine, CM-2 with 1,024 64-bit Vector Floating Point units and 4 gigabytes of main memory. Other computational resources include a Graphics and Visualization Laboratory and access to a Cray-2/4-512, a Cray X-MP-EA/4-64, and a Cray X-MP-EA/2-64. The Center is currently emphasizing research activities in four focus areas:

Computational Continuum Mechanics, including computational fluid dynamics and solid mechanics with finite volume and finite element techniques;

High Performance Computing Issues in Nonlinear Dynamics, with special emphasis on long-time dynamical issues arising in fluid flows, convective flows, and reacting flows;

Computer Science, including parallel algorithms for matrix computations and optimization, systems environment tools, and performance evaluations.

Emerging Focus Areas, covering computational biomedical sciences, computational chemistry, and modern materials.

We are inviting applications for appointments beginning in September 1992, but alternative starting dates may be requested. All requirements for a doctorate must be completed prior to the starting date. The materials listed below must be received by January 15, 1992:

1. Description (maximum two pages) of research background and plans for participating in one of the AHPCRC focus areas. (A description of project opportunities in these focus areas is available from the AHPCRC; please refer to "Research Opportunities for AHPCRC Postdoctoral Fellows.")
2. Curriculum vitae including a list of publications.
3. Three letters of recommendation, to be sent directly to the AHPCRC.

All Correspondence should be directed to:
Tayfun E. Tezduyar, Director of Fellows Program
AHPCRC/University of Minnesota
1100 South Washington Avenue
Minneapolis, Minnesota 55415

The University of Minnesota is an equal opportunity educator and employer.

POSITIONS OPEN

CHAIR DEPARTMENT OF BIOLOGY HOWARD UNIVERSITY

Applications and nominations are invited for the position of chairperson of the Department of Biology, which will be established upon the merger of the existing Departments of Botany and Zoology on 1 July 1992. The new department will have 30 faculty members, approximately 600 undergraduate majors, and 50 graduate students. Candidates should have a distinguished record of consistent research productivity and extramural support, a commitment to teaching, and a willingness to exercise innovative and resourceful leadership in building the department to a level of prominence. The area of concentration is open. Applicants should qualify for the rank of full professor. Salary is commensurate with qualifications and experience. Applicants should send, by 15 October 1991, curriculum vitae, names and addresses of three references, and a statement of educational and administrative philosophies to:

**Dr. Theodore A. Bremner, Chairman
Biology Search Committee
P.O. Box 619, Administration Building
Howard University
Washington, DC 20059**

Howard University is an Equal Opportunity Employer.

TENURE-TRACK POSITION MARINE BIOTECHNOLOGY

The College of Ocean and Fishery Sciences at the University of Washington invites applications for a unique position in marine biotechnology. The successful applicant will be active in research applying biotechnology to marine microbes (phytoplankton, bacteria or protozoans) and will occupy a new, state-of-the-art, 1500-square-foot laboratory. Tenured appointment at a senior level will be in the School of Oceanography. In addition to participating actively in research and teaching in marine biotechnology, the successful applicant will act as liaison with extensive ongoing biotechnological research and teaching programs in other university units, including the Colleges of Arts and Sciences, Engineering, and Forest Resources, the School of Medicine, and the Friday Harbor Laboratories, notably on problems of marine bioremediation. Closing date for applications is 31 October 1991. Applicants should send curriculum vitae, a statement of research interest, a list of publications, recent reprints, and the names of four references to: **Professor A. R. M. Nowell, Director, School of Oceanography, WB-10, University of Washington, Seattle, WA 98195.** *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR AND DEVELOPMENTAL NEUROBIOLOGY BOYER CENTER FOR MOLECULAR MEDICINE YALE UNIVERSITY SCHOOL OF MEDICINE

The Yale University School of Medicine is seeking applicants for a **FACULTY POSITION** at the junior level for the Molecular and Developmental Neurobiology Program in the newly created Boyer Center for Molecular Medicine. Research in the program will focus on various aspects of neurobiology, with potential application to human disease. Any area of neurobiology at the molecular or genetic levels will be considered. Researchers working with either vertebrate or invertebrate model systems are encouraged to apply. M.D. or Ph.D. appointees will hold regular faculty positions in one of the existing departments of the School of Medicine.

Salary and partial research support will be provided. Curriculum vitae and three letters of reference should be submitted by 1 January 1992 to:

**Dr. Spyridon Artavanis-Tsakonas
Chair, Search Committee
Molecular and Developmental
Neurobiology Program
Boyer Center for Molecular Medicine
Howard Hughes Medical Institute
Yale University School of Medicine
295 Congress Avenue
P.O. Box 9812
New Haven, CT 06536-0812**

Yale University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

NATIONAL SCIENCE FOUNDATION (NSF)

NSF is accepting Intergovernmental Personnel Act Mobility (IPA) nominations from colleges, universities, or state and local governments for an assignment as **PROGRAM ASSOCIATE** in the Latin America Programs of the Division of International Programs. Assignments are for 1 to 2 years. Starting time is July 1992. Applicants should have a Ph.D. or equivalent training in a scientific or engineering field supported by NSF with experience in teaching, research, and/or science- and education-related administration. Familiarity with at least one of the languages, the culture, and the scientific infrastructure within the particular region would be advantageous. Assignments will include program development, work with permanent staff on proposal and grant management, and interaction with NSF's counterpart organizations in Latin America, as well as with scientific visitors, foreign embassies, and U.S. government agencies.

The individual selected for the assignment will remain an employee of his/her institution which will be reimbursed by NSF for a portion of his/her salary and other costs related to the assignment. Nominations should be forwarded by the applicant's institution (not by the individual applicant) to: **The National Science Foundation, Staffing and Classification Branch, 1800 G Street, N.W., Room 208, Washington, DC 20550; Attention: Catherine Handle** no later than 15 December 1991. For further information, contact: **Dr. Harold Stolberg (telephone: 202-357-9564) or Mr. Roger Doyon (telephone: 202-357-9550).** Hearing impaired individuals should call 202-357-7492. *NSF is an Equal Opportunity Employer.*

TWO FACULTY POSITIONS IN BIOCHEMISTRY—MOLECULAR BIOLOGY UNIVERSITY OF CALIFORNIA, SANTA BARBARA

The Biochemistry and Molecular Biology Program and the Departments of Biological Sciences and Chemistry invite applications for two tenure-track teaching/research positions: (1) **EUKARYOTIC CELL MICROBIOLOGY**, including the areas of retroviruses, oncogenes, receptors and signal transduction mechanisms; and (2) **BIOLOGICAL CHEMISTRY**, including the areas of atomic level structural analysis of biologically important molecules (x-ray crystallography) and novel catalytic structures (abzymes, ribozymes). Appointment may be at either the junior or senior level depending upon area of research and the record of applicant. Applicants must have a Ph.D. degree and postdoctoral training. The successful applicants will be expected to conduct vigorous independent research programs, and to contribute to teaching in molecular cell biology and biochemistry at the graduate and undergraduate levels. The positions are effective 1 July 1992.

Submit curriculum vitae, selected reprints, and a brief description of previous and anticipated research, and arrange to have at least three letters of reference sent to: **Director, c/o Frances McCutcheon, Interdepartmental Biochemistry—Molecular Biology Program, Department of Biological Sciences, University of California, Santa Barbara, CA 93106.** Application deadline is 15 October 1991, or until the positions are filled. *Proof of U.S. citizenship or eligibility for U.S. employment will be required prior to employment (Immigration Reform and Control Act of 1986).* *An Equal Opportunity/Affirmative Action Employer.*

BIOLOGIST

TENURE-TRACK POSITION. Available beginning August 1992. Faculty rank negotiable. Ph.D. in zoological discipline with specialization in physiology or experience teaching anatomy and physiology required. Candidates must provide evidence of teaching and research effectiveness. *Minorities and women are especially encouraged to apply.* Responsibilities include teaching human anatomy and physiology and other courses and establishing a research program that will involve undergraduates. Send letter of application, curriculum vitae, transcripts, a statement of long-term goals, and three (3) letters of recommendation to: **Dr. Carolyn Steglich, Search Committee Chairperson, Department of Biology, Slippery Rock University, Slippery Rock, PA 16057.** To ensure consideration, application materials should be received by 1 November 1991.

Slippery Rock University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

The Montreal Neurological Institute is expanding its basic research effort in the cellular and molecular mechanisms involved in cerebrovascular function. It seeks candidates for **TWO TENURE-TRACK POSITIONS.** Preference will be given to those interested in applying techniques of molecular biology and neurophysiology to investigate channel and receptor functions relevant to cerebral ischemia. The candidates should have a Ph.D., M.D. or both and have at least 2 years of postdoctoral experience in a basic research laboratory. Strengths within the present cerebrovascular research theme include multimodality evaluation of ionic channels in vivo, analysis of neurotransmitter functions, kinetic evaluation of drug receptor interactions, and a sophisticated computer environment. Candidates should submit curriculum vitae, a description of their research interest and experience and the names of three references to: **Dr. A. M. Hakim, Montreal Neurological Institute, 3801 University Street, Montreal, Quebec H3A 2B4, Canada.**

University of California, San Diego. **TENURED/TENURE-TRACK POSITION IN ORGANIC CHEMISTRY.** The Chemistry Department of the University of California, San Diego, is recruiting for a position in the area of organic chemistry. Candidates must have a Ph.D. and a demonstrated ability for creative research and for teaching at the undergraduate and graduate levels. Candidates at all levels are encouraged to apply. Open position subject to availability of funds. All applications received through 15 November 1991 will be given thorough consideration. Salary commensurate with experience and based on the University of California pay scale. Candidates should send curriculum vitae, a list of publications, reprints of up to five representative papers, a summary of research plans, and names and addresses of three references to: **Chairman, Organic Chemistry Search Committee, University of California, San Diego, Department of Chemistry-0332, 9500 Gilman Drive, La Jolla, CA 92093-0332.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

University of Wisconsin—Madison. The Department of Psychiatry is seeking **TWO FACULTY MEMBERS** (M.D. or Ph.D.) for positions in the area of addiction and drug abuse. Responsibilities include developing an independent research program in the area of drug abuse involving either preclinical or clinical research and developing a training or teaching program for residents and medical students. Candidates will be expected to obtain outside grant funding for his/her research. Send curriculum vitae and cover letter to: **Dr. Ned Kalin, Chairman, Department of Psychiatry D6/252B, University of Wisconsin Medical School, 600 Highland Avenue, Madison, WI 53792.** *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

SABBATICAL REPLACEMENT. The Department of Biology of Illinois Wesleyan offers a one-semester faculty position February through May 1992. Teaching lecture and two laboratory sections in vertebrate developmental biology, 12-contact hours. Send letter of application, résumé, and have three letters of recommendation sent to: **Dr. Bruce Criley, Chair, Biology Department, Illinois Wesleyan University (IWU), P.O. Box 2900, Bloomington, IL 61702.** *IWU is an Equal Opportunity Employer and applications from women and minorities are strongly encouraged.*

MOLECULAR AGING

Two **POSTDOCTORAL POSITIONS** now available for persons to characterize novel genes relevant to cell senescence [*Science* 249, 1129-33 (1990); *Molecular and Cellular Biology* 11, 3905-14]. NIH salary scale. Send curriculum vitae and names of four referees to: **Dr. S. Goldstein, University of Arkansas Medical School and Veterans Hospital, 151/Research, Little Rock, AR 72205.** Telephone: 501-660-2069; FAX: 501-660-2034.

POSTDOCTORAL POSITION. Available for research on the role of the inositol phosphate cascade in visual transduction in laboratory using electrophysiological and pharmacological techniques.

Send curriculum vitae and references to: **Dr. Alan Fein, Department of Physiology, University of Connecticut Health Center, Farmington, CT 06030.**

An Affirmative Action/Equal Opportunity Employer, M/W/H.

NUCLEAR WASTE TECHNICAL REVIEW BOARD

Geochemist and/or Hydrogeologist

The U.S. Nuclear Waste Technical Review Board (NWTRB) is seeking a senior staff geochemist and/or hydrogeologist to assist in the evaluation of radionuclide transport and retardation, water/rock interactions, and unsaturated/saturated groundwater flow in the vicinity of Yucca Mountain, Nevada. A site at Yucca Mountain is being considered by the Department of Energy (DOE) for the potential location of a high-level waste repository.

The NWTRB is an independent federal agency in the executive branch, whose purpose is to advise the Congress and the Secretary of Energy on the technical and scientific validity of the DOE's repository site-characterization activities and on activities relating to the packaging and transport of civilian high-level radioactive waste. The individual selected will join a small, full-time professional staff located in Arlington, Virginia, who assist the Board's Presidentially appointed members.

Applicants should have a Ph.D., and a minimum of ten years' experience in geochemistry or hydrogeology, and can not be currently employed by the DOE. Starting annual salary will be commensurate with qualifications and experience. Interested individuals should send a cover letter together with a resume or completed Standard Form 171 by October 1, 1991, to:

Dr. William Barnard
Executive Director

U.S. Nuclear Waste Technical Review Board
1100 Wilson Boulevard, Suite 910
Arlington, VA 22209

Chemical/Metallurgical Engineer

The U.S. Nuclear Waste Technical Review Board (NWTRB) is seeking a senior staff chemical/metallurgical engineer with background in chemical kinetics, engineering economy, and/or statistics to assist in the evaluation of the effects of repository conditions on the engineered barrier system's ability to contain radionuclides. This evaluation is part of the NWTRB's technical and scientific review of the Department of Energy's (DOE) civilian high-level radioactive waste management program. A site at Yucca Mountain, Nevada, is being considered by the DOE for the potential location of a high-level waste repository.

The NWTRB is an independent federal agency in the executive branch, whose purpose is to advise the Congress and the Secretary of Energy on the technical and scientific validity of the DOE's site-characterization activities and on activities relating to the packaging and transport of civilian high-level radioactive waste. The individual selected will join a small, full-time professional staff located in Arlington, Virginia, who assist the Board's Presidentially appointed members.

Applicants should have a Ph.D., and a minimum of ten years' experience in chemical or metallurgical engineering and can not be currently employed by the DOE. Starting annual salary will be commensurate with qualifications and experience. Interested individuals should send a cover letter with a resume or completed Standard Form 171 by October 1, 1991, to:

The University of Oklahoma Health Sciences Center College of Public Health Center for Epidemiologic Research

The newly established Center for Epidemiologic Research in the College of Public Health, University of Oklahoma Health Sciences Center, invites applications for a fellowship/visiting professor position. As the primary research unit of the College, the Center is a multidisciplinary, multiprofessional, interdepartmental and interinstitutional program in research, training and continuing education. The overall objectives of the Center are to provide comprehensive biometric and epidemiologic resources for the Southwestern United States, to perform research on determinants of morbidity and mortality and health care monitoring, and to advance methods and technologies for data management and statistical analysis. The University of Oklahoma Health Sciences Center offers a stimulating research environment and a variety of excellent research and computational facilities.

The successful candidate for this position will have an earned doctorate with a strong interest in epidemiology, a demonstrated record of successful research and the ability to provide biometric or epidemiologic consultation in a multidisciplinary environment. Applications from individuals who plan to take a one-year sabbatical leave from their current positions are welcome.

The University of Oklahoma is committed to the principles and practices of equal opportunity.

A statement of interest and curriculum vitae should be submitted by November 30, 1991 to:

Elisa T. Lee, Ph.D.
Co-Director, Center for Epidemiologic Research
College of Public Health
The University of Oklahoma Health Sciences Center
P.O. Box 26901
Oklahoma City, OK 73190
(405) 271-3090

Chair, Committee on Comparative Medicine and Pathology and Director, Animal Resources Center

The Division of the Biological Sciences of the University of Chicago solicits applicants to lead an academically based Committee on Comparative Medicine and an Animal Resources Program. The successful candidate will be a nationally recognized veterinarian, and will have a proven research record and a background in animal resources management. The candidate selected will be appointed to a senior level faculty position. Board certification in Laboratory Animal Medicine, Veterinary Pathology, or equivalent is expected.

The Committee on Comparative Medicine and Pathology is the academic base for the veterinary faculty. At present, the Committee includes 6 veterinary faculty, and it would be expected to grow substantially under the new leadership. The faculty are appointed in appropriate academic departments and are expected to pursue independent scholarly work, in addition to clinical and teaching activities. The Animal Resources Center is a 60,000 sq ft operation and is undergoing major renovations. Candidates should have a solid understanding and proven experience in the management and operations of an extensive animal facility. The reorganized Animal Resources Center is key to the activities of the Committee and to a prestigious general research program of the University's faculty in the Division of the Biological Sciences.

Please address nominations and letters of interest, along with a current curriculum vitae, to: Dr. Harry Fozzard, Chair, ARC Search Committee, The University of Chicago, 5841 S. Maryland Ave., Box 440, Chicago, IL 60637.



**THE UNIVERSITY
OF CHICAGO**

The University of Chicago is
An Affirmative Action Equal Opportunity Employer

Schering

Toxicologist

THE SCIENCE OF SUCCESS.

As a highly recognized division of a \$3 billion health care company, we've maintained our leadership role by developing life saving and life enhancing pharmaceuticals for both humans and animals. To help us achieve continued success, we look for talented professionals who share our goals.

Working in our Safety Evaluation Center, you will be involved with the drug safety program supporting Schering-Plough's product registrations. This will entail ensuring the timely planning, execution, reporting and interpretation of appropriate animal and environmental toxicology studies and integration of study results with information from other functions, such as drug metabolism and pharmacokinetics.

To be successful, you should possess a Ph.D. in Toxicology or related field with up to 3 years' experience in inhalation or immunotoxicology.

We offer a very attractive salary and benefits package, with the opportunity to make a significant contribution to our organization. For immediate consideration, please forward your resume with salary requirements to: Mr. W. Decker, Schering-Plough Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.



Senior Scientist Pharmaceutical Development

Excellent opportunity for Ph.D. in pharmacology, immunology or biochemistry with 2+ years of postdoctoral experience or equivalent to investigate recombinant receptor protein and/or monoclonal antibody based therapeutics. Candidate should have solid background in the human immune system. Hands-on experience with animal modeling, receptor-ligand interaction, immunoassays and bioassays required. Experience in autoimmune and tumor experimental models in an industrial environment a plus. Position offers key project responsibility as part of a multidisciplinary team for preclinical development of human therapeutic products.

Senior Associate Scientist Molecular Biology

Growth position for BS/MS with minimum 2 years in molecular biology. Requires demonstrated proficiency in enzymatic manipulations of DNA, plasmid constructions, DNA sequencing, site-directed mutagenesis, RNA isolation and analysis, and mammalian tissue culture. Should be organized, strongly motivated and eager to work in a fast-paced lab for development of human therapeutics.

T Cell Sciences, Inc. is utilizing proprietary T cell receptor and soluble receptor technology to develop pharmaceutical products to treat heart disease, inflammatory diseases, autoimmune diseases and cancer. We offer competitive compensation, comprehensive benefits and the opportunity for career advancement. Please forward C.V. to Paula R. Freeman, T CELL SCIENCES, INC., 38 Sidney Street, Cambridge, MA 02139.

An Equal Opportunity Employer M/F/H



DEPARTMENT HEAD OF BIOCHEMISTRY AND BIOPHYSICS TEXAS A&M UNIVERSITY

Applications and nominations are invited for the position of Head of the Department of Biochemistry and Biophysics at Texas A&M University. The Department of Biochemistry and Biophysics, with a faculty of 25, is in the College of Agriculture and Life Sciences, offers B.S., M.S. and Ph.D. degrees in Biochemistry and Genetics, and is a unit of the Texas Agricultural Experiment Station. The Department occupies a new 90,000 sq. ft. research and teaching building and will be a key component of the new Institute of Biosciences and Technology.

Candidates for the position must have a Ph.D. or equivalent degree, a record of research excellence in Biochemistry and/or Molecular Biology, demonstrated leadership in scholastic activities and a strong commitment to excellence in academic and research programs. The successful candidate will have a major influence in filling several vacant faculty positions, including one endowed Chair.

The position is expected to be filled by September 1, 1992. Nominations and applications should include resumes and names and telephone numbers of at least three references. Review of applications will begin on October 1, 1991; however applications will be accepted until a suitable candidate is identified. These materials should be submitted to: Dr. Robert D. Wells, Department Head Search Committee, Department of Biochemistry and Biophysics, Texas A&M University, College Station, Texas 77843-2128.

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

Molecular Biologist

The Department of Cellular and Molecular Biology at Merck, Sharp and Dohme Research Laboratories in Rahway has an opening for a highly motivated Ph.D. or M.D. with at least 3 years post-doctoral experience interested in pursuing a career in drug discovery.

The successful candidate will be involved in the application of state-of-the-art molecular and cellular biological tools to ongoing drug discovery programs within a multi-disciplinary environment. Responsibilities will include gene cloning, expression of proteins in mammalian cells and analysis of function. Current programs include research in immunology, virology and cardiovascular regulators. The candidate should have a demonstrated ability to find creative solutions to a broad range of biological problems. Excellent communication abilities and interpersonal skills are essential.

Please send curriculum vitae with cover letter and the names of three references to Ms. Susan Jenkins, R80-A3, AD #93, Merck Sharp & Dohme Research Laboratories, P.O. Box 2000, Rahway, NJ 07065.

EEO/AA/VH Employer



Merck & Co., Inc.

RESEARCH OPPORTUNITIES IN PLANT BIOTECHNOLOGY.

ICI Seeds Research is looking for an individual with a BS/MS in plant science to join the Maize Doubled Haploid project. Applicants should have a strong interest in the use of tissue culture techniques for crop improvement. Experience in cytology, histology, biochemistry, molecular biology and transformation techniques would also be advantageous. The position is at our recently completed research facility in Slater, IA. (30 miles north of Des Moines). Salary and benefits will be competitive. Please send a letter of application and resume by October 4, 1991 to:

Pam Twedt
Bioscience Secretary,
ICI/Garst Seed Company
PO Box 500
Slater, IA 50244
ICI/Garst Seed Co. is an E.O.E.



World Problems,
World Solutions, World Class

1992

HOWARD HUGHES MEDICAL INSTITUTE

PREDOCTORAL FELLOWSHIPS IN BIOLOGICAL SCIENCES

66 Fellowships will be awarded by the Howard Hughes Medical Institute for study toward a Ph.D. or Sc.D. degree in the biological sciences listed below. Awards, based on an international competition each year, focus on research directed to an understanding of basic biological processes and disease mechanisms. Fellowships may be held at any academic or research institution with appropriate degree programs.

- **Fellowship Terms**
- Full-time study toward the Ph.D. or Sc.D.
 - Up to five years of support possible
 - \$14,000 annual stipend, effective June 1992
 - \$11,700 annual cost-of-education allowance

- **Fields of Study**
- Continuing as eligible fields:

biochemistry	immunology	pharmacology
biophysics	microbiology	physiology
cell biology	molecular biology	structural biology
developmental biology	neuroscience	virology
genetics		
 - New eligible fields:

biostatistics	epidemiology	mathematical biology
---------------	--------------	----------------------

- **Eligibility**
- Beginning graduate study (prior study toward an M.P.H. or a medical degree does not rule out eligibility)
 - college seniors
 - first year graduate students
 - medical students and physicians (M.D., D.O., D.D.S., or D.V.M.) not past the first year of a Ph.D. or Sc.D. degree program
 - Not in a funded M.D./Ph.D. program
 - No citizenship requirements: U.S. citizens may study abroad, but others must study in the United States

- **Schedule**
- Application deadline: November 8, 1991
 - Awards announced: early April 1992
 - Fellowships start: June 1992 - January 1993

For 1992 Program Announcements, Eligibility Guidelines, and Applications

Hughes Fellowship Program • The Fellowship Office
National Research Council • 2101 Constitution Avenue, N.W.
Washington, D.C. 20418 • United States of America
Telephone (202) 334-2872

The Howard Hughes Medical Institute welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.

POSITIONS OPEN

POSTDOCTORAL POSITION IN ENVIRONMENTAL STRESS MOLECULAR BIOLOGY is immediately available to participate in a multi year collaborative project on the cDNA cloning of cold responsive genes and RFLP mapping of cold and salt stress tolerance loci in citrus. Experience in genetics and/or molecular biology is required. Knowledge of plant biology is desirable, but not essential. Send curriculum vitae and the names of three references to: **Dr. Charles Guy, Department of Environmental Horticulture, University of Florida, Gainesville, FL 32611. Telephone: 904-392-7934; FAX: 904-392-3870.**

POSTDOCTORAL POSITION IN EXPERIMENTAL PATHOLOGY. A position is available to study receptors and signal pathways in the cerebral vasculature in aging and Alzheimer's disease. Experience in biochemistry/molecular biology is required. Applicants should submit curriculum vitae, statement of research interests and a list of three references to: **Paula Grammas, Ph.D., Department of Pathology, University of Oklahoma Health Sciences Center, Post Office Box 26901, Biomedical Sciences Building 434, Oklahoma City, OK 73190. The University of Oklahoma is an Affirmative Action/Equal Opportunity Employer.**

HAHNEMANN UNIVERSITY GRADUATE PROGRAM IN EXPERIMENTAL PATHOLOGY OFFERS RESEARCH TRAINING LEADING TO A Ph.D. IN MOLECULAR GENETIC AND IMMUNOLOGIC APPROACHES TO PATHOLOGIC PROCESSES

A core curriculum consisting of courses in biochemistry, molecular genetics, immunology, and pathology is followed by specialty courses and research in the student's chosen area of concentration. State-of-the-art research facilities are available.

Present research interests of faculty members in this program include: molecular and cellular basis of cytokine action, host/retrovirus interactions, antibody genes in agammaglobulinemia, organization and expression of rDNA genes, tumor and transplantation immunology, initiation and regulation of cell growth, cytoskeletal alterations in neuropathologic processes, and bioenergetics.

Students are provided with a waiver of tuition and a competitive stipend. This program can be combined with a Residency Program in Pathology.

For further information regarding September 1992 admission call **Ms. Del Malatesta at 215-448-3760** or write: **Graduate Program in Experimental Pathology, Hahnemann University, Department of Pathology and Laboratory Medicine, M.S. 435, Broad and Vine, Philadelphia, PA 19102.**

Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. To study conformation, stability and folding of triple-helical peptides as models for collagen diseases. Techniques include CD, NMR and molecular modeling. Send curriculum vitae and three letters of reference to: **Dr. Barbara Brodsky, Department of Biochemistry, University of Medicine and Dentistry of New Jersey (UMDNJ)—Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635. The UMDNJ is an Affirmative Action/Equal Employment Opportunity Employer, M/F/H/V, and a member of the University Health System of New Jersey.**



POSTDOCTORAL POSITION WALTHER ONCOLOGY CENTER INDIANA UNIVERSITY SCHOOL OF MEDICINE

Available immediately to study the interactions between *ras* p21 and proteins involved in the *ras* mitogenic pathway [Mol. Cell. Biol. 11, 3997-4004 (1991)]. Experience in molecular and cellular biology is preferred. Please send curriculum vitae and three references to: **Dr. Mark Marshall, Walther Oncology Center, Indiana University School of Medicine, 975 West Walnut Street, Room 501, Indianapolis, IN 46202-5121. Walther Oncology Center is an Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION MARINE SCIENCE

Catalina Marine Science Center, University of Southern California (USC). Postdoctoral position available to conduct research at the USC Marine Laboratory located on Santa Catalina Island. The position is available for 1 year, with the possibility of renewal for a second year. The position will start early in 1992. Applicants will be expected to have a close collaboration with a member of the USC faculty in marine science. Applicants in any field of marine science are encouraged to apply, but preference will be given to applicants in two general areas: (1) the effects of environmental change on the physiological ecology and dynamics of algal communities, (2) the biology of larval forms or zooplankton. Applications should include curriculum vitae, two selected reprints, and the names and addresses of three referees. Send applications by 31 October 1991 to: **Director, Hancock Institute of Marine Studies, University of Southern California, Los Angeles, CA 90089-0373.**

A **POSTDOCTORAL POSITION** is available for a molecular cell neurobiologist to investigate the regulation of gene expression and protein synthesis in secretory tissue of the nasal/respiratory/olfactory mucosae. Areas of investigation include the regulatory mechanisms associated with perireceptor events in chemosensory transduction, processing of secretory glycoconjugates and the secretory immunology of the olfactory mucosa. Basic molecular and cell biological techniques are essential. Salary is competitive based on experience. Send curriculum vitae and the names of three references to: **Dr. Thomas Getchell, Department of Physics and Biophysics, University of Kentucky Medical Center, Lexington, KY 40536-0084.**

POSTDOCTORAL POSITION. To study the molecular pharmacology of antitumor agents and chemotherapeutic drug resistance. Current interests focus on the mechanisms of carrier-mediated membrane transport of methotrexate and related drugs, including the structure and function of the transport system, and the regulation of its expression in mammalian cells. Requirements include a Ph.D. in biochemistry, pharmacology, or a related discipline. Some experience in molecular biological techniques/protein chemistry is desirable. Excellent benefit package. Please send curriculum vitae and names of three references to: **Dr. Larry H. Matherly, Michigan Cancer Foundation, 110 East Warren Avenue, Detroit, MI 48201.**

MOLECULAR OR CELLULAR BIOLOGIST POSTDOCTORAL POSITION

One- or two-year postdoctoral positions beginning 1 October 1991, in a major research laboratory concerned with all aspects of the biochemistry, molecular biology, and endocrinology of vitamin D and its biologically active hormone $1,25(\text{OH})_2\text{D}_3$. Ongoing projects include: (1) molecular biological studies of the vitamin D-dependent calcium binding protein calbindin- $\text{D}_{28\text{K}}$; (2) biochemical studies on the $1,25(\text{OH})_2\text{D}_3$ receptor; (3) studies on the role of $1,25(\text{OH})_2\text{D}_3$ in human leukemia; (4) mechanism of intestinal calcium transport, both genomic and nongenomic; and (5) interaction of insulin with the vitamin D endocrine system. Starting salary from \$25,000. Send curriculum vitae and names of three references to: **Anthony W. Norman, Professor of Biochemistry and Biomedical Sciences, University of California, Riverside, CA 92521. The University of California is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION. Available to study lipid transport in cellular and model membrane systems. Freeze fracture, monolayer, calorimetric and NMR techniques will be used to define cerebroside and ganglioside-induced changes in membrane structure that regulate interactions between glycolipid transfer protein and biological surfaces. Requires Ph.D. in biochemistry or related discipline, and preference will be given to individuals with experience in the above techniques. Salary is above NIH scale with fringe benefit package. Send curriculum vitae and names of three references by 15 October 1991, to: **Dr. Rhoderick E. Brown, The Hormel Institute, University of Minnesota, 801 16th Avenue N.E., Austin, MN 55912. Telephone: 507-433-8804. The University of Minnesota is an Equal Opportunity Educator and Employer.**

MOLECULAR NEUROBIOLOGY RESEARCH

An opening for a Technician skilled in molecular biology laboratory methods exists at Mayo Clinic Jacksonville. A bachelor's degree with 2-5 years experience or M.S. degree in molecular biology/genetics is required. Among other activities, this person will assist in RT/PCR analyses of genes in rat brain or cultured cells involved in plasticity and survival of cholinergic neurons in aging or disease models. Send resume and list of references by October 15, 1991 to: **Dr. M. McKinney, Associate Professor of Pharmacology,**

**mayo MAYO CLINIC
JACKSONVILLE
4500 San Pablo Road
Jacksonville, FL
32224**

Equal Opportunity Employer
Smoke-Free & Drug-Free Workplace

NATIONAL INSTITUTES OF HEALTH POSTDOCTORAL POSITION

The Laboratory of Cell Biology investigates central nervous system function utilizing techniques ranging from expression cloning and homologous recombination to *in situ* hybridization and immunohistochemistry. We will have a NIH Intramural Research Training Award (IRTA) post-doctoral position available September 1, 1992, for a recent graduate with 3 or fewer years of post-doctoral research experience in molecular biology. Stipends range from \$25,000 to \$28,000, depending on experience. The successful candidate will join a group studying the regulation of gene expression in the hypothalamus. Interested applicants should send their Curriculum Vitae, bibliography, three letters of reference emphasizing research potential, official copy of graduate or medical school transcripts and brief summary of doctoral dissertation, if applicable, to:

**W. Scott Young, III, M.D., Ph.D.
Laboratory of Cell Biology
National Institute of Mental Health
National Institutes of Health
Building 36, Room 2D10
9000 Rockville Pike
Bethesda, Maryland 20892**

U.S. Citizenship Required
NIH is an Equal Opportunity Employer

FACULTY POSITIONS

Developmental and Cell Biologists

The Department of Molecular Genetics and Cell Biology invites applications for new faculty positions in the field of developmental and cell biology at the assistant professor level, although exceptional candidates at any level will be considered. The quality of the research program and its relationship to existing strengths in the Department will be the most important considerations. Complete applications with three letters of recommendation should be sent by November 1, 1991 to:

Dr. Anthony P. Mahowald
Chairman, Department of Molecular Genetics
and Cell Biology

THE UNIVERSITY OF CHICAGO

920 E. 58th St.
Chicago, IL 60637

An Affirmative Action Equal Opportunity Employer
(Women and members of minority groups are strongly encouraged to apply)

R & D...A New Twist

In the scientific world, "R & D" stands for Research and Development. It's an important part of your professional life. But when it comes to your personal life, "R & D" could stand for *Responsibilities* and *Dreams*. And in this day and age, it takes a lot of both to see a family through.

That's why the American Association for the Advancement of Science makes the AAAS Term Life Insurance Plan available to you. It's an easy and affordable way to protect your family's future. The Plan provides benefits that can be used to help with basic living expenses and can enable your family to follow through with the plans you made together. You can request up to \$240,000 of coverage for yourself. And generous protection is available for your family too.

Don't experiment with your family's financial security! Contact the Administrator of the AAAS Term Life Insurance Plan today. We'll send a brochure and application right away.

Administrator
AAAS Group Insurance Program
1255 23rd Street, N.W., Suite 300
Washington, D.C. 20037
Toll-Free: 1 800 424-9883
Washington, D.C.: (202) 457-6820

Managers, Scientists and Postdoctoral Fellows in Pharmacology and Toxicology

Mallinckrodt Medical, Inc. is a leading company in the healthcare industry, providing innovative diagnostic products for the fields of radiology, cardiology and nuclear medicine. Continued strong growth of the company in these medical markets has allowed for several new positions in its Pharmacology and Toxicology Department.

Research Managers must have a Ph.D. in Pharmacology, Toxicology or a related field and at least five years of industrial experience in drug development, including supervisory experience. They will manage a staff of four to six scientists and research/senior research scientists, and will administer preclinical pharmacology, GLP toxicology, and ADME programs, including the preparation of nonclinical summaries for FDA submissions and clinical investigator's brochures.

Candidates for senior research scientists will have a Ph.D. in toxicology, pharmacology, biopharmaceutics or a related field and at least two years of industrial or contract laboratory experience in drug development. Duties entail preclinical evaluation of diagnostic and therapeutic drugs/radiopharmaceuticals, including supervising one or two technologists and staff scientists, and serving as study director on internal nonclinical laboratory studies and as scientific monitor of contract laboratory work.

The area of research for the first of two postdoctoral fellows involves the biochemical toxicology of transition metal and lanthanon complexes used in diagnostic medicine. Requirements for this position include a recent Ph.D. in biochemical toxicology or a related field and research experience in the biochemistry of transition metals or lanthanides. The second postdoctoral fellow will assess the receptor pharmacology of peptide receptor-imaging radiopharmaceuticals useful in the diagnosis of cancer. Candidates for this position will have a recent Ph.D. in biochemical pharmacology or a related field and research experience in receptor techniques.

Excellent salary, benefits programs and relocation package accompany each of these positions at our modern research facilities on a large campus in suburban St. Louis, Missouri. Please send curriculum vitae with cover letter to:

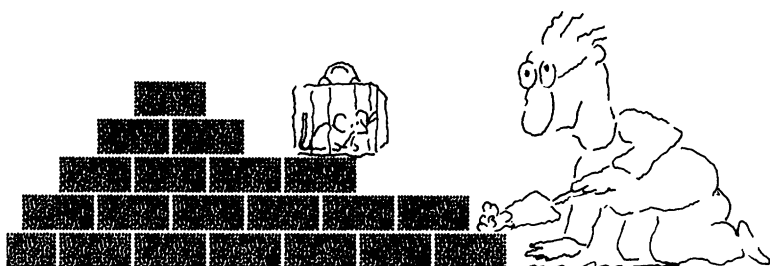
Sara E. Hamlin
Manager, Human Resources

MALLINCKRODT®

MALLINCKRODT MEDICAL, INC.
675 McDonnell Boulevard
St. Louis, MO 63134

We are an Equal Opportunity
Employer M/F/H/V

We'll Help You Build A New Lab



Let the free Science product information service put you in touch with the vendors whose products you will need.

Simply write us a letter stating the specifics about your proposed lab and the instruments and supplies you need. We will do the rest. Write to:

SCIENCE Magazine
New Lab Service Department
1515 Broadway, New York, NY 10036

The Global Weekly of Research
SCIENCE

VIROLOGY RESEARCH OPPORTUNITIES

Research associates will participate in virology research programs emphasizing either in vitro assay development or in vivo model development for the discovery of agents effective in the treatment of human viral diseases. Qualified candidates must have a bachelor's or master's degree and several years experience in virology, which may include HIV and/or other viruses.

Successful candidates should have either:

- a strong background in molecular virology, cell culture, molecular biology, and in vitro virology and experience with immunological assays, biochemical and genetic techniques, or
- a good foundation in cell culture, viral propagation and assay methods with experience in evaluating antiviral agents using PCR, molecular virology, immunological and animal handling techniques.

The Upjohn Company is located in Kalamazoo, Michigan, a medium-sized university city, midway between Chicago and Detroit, offering varied cultural events, reasonable housing costs and numerous lakes and recreational advantages. For confidential consideration please send your cover letter and resume to: THE UPJOHN COMPANY, POSITION CODE 910563-073, 7000 PORTAGE ROAD, KALAMAZOO, MI 49001. An Equal Opportunity Employer M/F.

Our Commitment to Scientific Excellence Continues...

Upjohn

POSITIONS OPEN

POSTDOCTORAL POSITION for cell/molecular biologist with demonstrated background in the area of extracellular matrix biology. Areas of research include growth factor sequestration by matrix proteins, characterization of intermolecular binding properties of new ECM molecules, and delineation of functional domains. Interested applicants should send curriculum vitae, three letters of reference and statement of research interests and future goals to: **W. Scott Argraves, Ph.D., American Red Cross, Biochemistry Laboratory, 15601 Crabbs Branch Way, Rockville, MD 20855. Telephone: 301-738-0725; FAX: 301-738-0794. Equal Opportunity Employer M/F/V/H.**

COMPUTATIONAL NEUROSCIENCE

POSTDOCTORAL POSITION in biologically based simulation of hippocampus in collaboration with B. L. McNaughton, J. L. McClelland and M. L. Wilson. Preference will be given to those with backgrounds in mathematics, computations and/or neurobiology. Review of applications begins 15 October 1991 and will continue until position is filled. Send letter of interest, résumé, and names and addresses of three references to: **B. L. McNaughton, Life Sciences North Building, University of Arizona, Tucson, AZ 85724. The University of Arizona is an Equal Employment Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION. To work on the isolation and characterization of cannabinoid receptors. Background in protein purification and receptor binding techniques desirable. Salary is competitive and commensurate with experience. Send curriculum vitae and names of three references to: **Sumner Burstein, Ph.D., Department of Biochemistry and Molecular Biology, University of Massachusetts Medical School, Worcester, MA 01655.**

THE BLAUSTEIN INTERNATIONAL CENTER FOR DESERT STUDIES BLAUSTEIN FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS are available for basic or applied research in the physical, life and social sciences in arid zones. Deadline for application is 31 December 1991. Decisions will be announced by 15 February 1992. Send curriculum vitae, letter describing research interests, and have three letters of reference forwarded to: **Professor Joseph Gale, The Jacob Blaustein Institute for Desert Research, Ben Gurion University of the Negev, Sede Boker Campus, 84993, Israel, FAX: 972 (57) 555-058, Telex: 5280 DIRBG IL.**

POSTDOCTORAL FELLOWSHIPS IN VECTOR BIOLOGY

The Center for Insect Science, through a grant from the John D. and Catherine T. MacArthur Foundation, is offering fellowships to study various aspects of vector biology. Ongoing research projects, mostly on mosquitoes, include biochemistry and pharmacology of salivation, biochemistry and molecular biology of gut enzymes, the molecular basis of lipid and iron transport, hormonal control of development and oogenesis, and the search for effective molecular transformation tools in mosquitoes.

The Center for Insect Science includes over 60 research laboratories in the Departments of Biochemistry, Ecology and Evolutionary Biology, Entomology, Molecular and Cellular Biology, Neurobiology, Pharmaceutical Science and Veterinary Science at the University of Arizona in Tucson, the USDA-ARS Carl Hayden Bee Research Center in Tucson, and the Department of Zoology at Arizona State University in Tempe. Appointments are for 2 years, depending on availability of funds and satisfactory performance. In addition to a stipend, fellows receive funds to support their research and are expected to develop independent and collaborative projects.

Applicants should send an introductory cover letter with statement of research interests, curriculum vitae, evidence of academic background and degrees earned, and three letters of recommendation to: **Dr. Henry Hagedorn, Director, Center for Insect Science, 430 Forbes Building, University of Arizona, Tucson, AZ 85721.** The review of applications will begin 11 October 1991 and continue until positions are filled. *Applications from women and members of minority groups are encouraged. The University of Arizona is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS

THE GOLDA MEIR FELLOWSHIP FUND
THE HEBREW UNIVERSITY OF JERUSALEM
JERUSALEM, ISRAEL

The Hebrew University of Jerusalem invites applicants for Postdoctoral Fellowship in Humanities, Social Sciences, Natural and Applied Sciences, Agriculture and Medicine for the 1992-93 academic year.

Candidates may apply at an early stage of their professional career (not later than 3 years after completion of their doctoral dissertation).

The fellowships are tenable for one academic year and may be extended for another year. The fellowship provides a 12-month stipend (with COL adjustments), rent allowance and return ticket to Israel.

Application forms can be obtained from the University Grants Office, P.O. Box 1255, Jerusalem, 91904, Israel.

Completed application forms must be returned by 1 December 1991.

POSTDOCTORAL FELLOW

Postdoctoral position available immediately to study the effect of dietary fat on the immune response in humans. The candidate should have a Ph.D. in nutrition, immunology, or related fields. Research experience in immunology and/or fatty acid metabolism especially as it relates to eicosanoid production is highly desirable. Send curriculum vitae and three references to: **Dr. Simin Meydani, Chief of Nutritional Immunology Laboratory, USDA HNRC at Tufts University, Boston, MA 02111. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIPS GLADSTONE INSTITUTE OF VIROLOGY AND IMMUNOLOGY

The Gladstone Institute of Virology and Immunology at the San Francisco General Hospital and University of California, San Francisco, invites applications from individuals seeking postdoctoral fellowship training in human virology and immunology. A primary focus of this institute will be the study of the molecular biology, biochemistry and immunology of the type I human immunodeficiency virus (HIV-1). The institute occupies 27,000 square feet of new laboratory space and offers an excellent compensation and benefits package from the Gladstone Foundation. Interested candidates should send their curriculum vitae and the names of three references to:

Warner C. Greene, M.D., Ph.D., Director
Gladstone Institute of Virology and Immunology
c/o Emily J. C. Belanger
P.O. Box 40608
San Francisco, CA 94140-0608

The Gladstone Foundation is an Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP. Available immediately to study the mechanistic basis of increased clearance of drugs in Cystic Fibrosis. Background in molecular biology is desirable. Experience with molecular biology techniques (e.g., Southern and Northern analysis, DNA sequencing, cDNA, PCR) and isolation and characterization of hepatic metabolic enzymes (e.g., P-450), is preferred. Send curriculum vitae and three letters of references to: **Dr. Arnold Smith, Division of Infectious Diseases, c/o J. D. Unadkat, Ph.D., Department of Pharmacetics, BG-20, University of Washington, Seattle, WA 98195. Telephone: 206-685-2869. Equal Opportunity Employer.**

Position available for a **POSTDOCTORAL FELLOW** (M.D., Ph.D.) interested in experimental carcinogenesis, and having experience with molecular biology. Please submit curriculum vitae and three letters of reference to: **Ms. A. Roman-Koller, Administrative Director, University of Pittsburgh, Department of Pathology, School of Medicine, 720 Scaife Hall, Pittsburgh, PA 15261. The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer.**

SCIENCE recruitment ads reach thousands of scientists in all disciplines, worldwide. Classified Advertising telephone: 202-326-6555. FAX: 202-682-0816.

Research Scientist

Regulation of Insulin Action

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert Company has fostered an innovative and exciting environment for discovery research. A critical component of this effort is the constant push to look forward for new therapeutic advances in diabetes and other states of altered insulin action. In this regard, we are committed to exploring structure/function relationships of the insulin receptor as they relate to the molecular events that underlie the actions of insulin.

This scientist will initiate and direct a research effort to study basic mechanisms involved in the binding of insulin by the receptor and the molecular changes that cause the activation of the signaling components. She/he will join a highly interactive and creative group focused on intracellular signaling for peptide hormones and growth factors. The successful candidate should be an energetic and productive protein chemist with a Ph.D. degree and at least 3 years of postdoctoral experience as well as a proven record of accomplishments. He/she should also have experience with techniques of cell and molecular biology.

Our modern facilities are located adjacent to the University of Michigan campus. Excellent compensation and benefits are only a part of the package. Our dynamic and challenging research environment offers ample opportunities for personal and professional creativity and growth. If you are qualified and wish to be considered, please send a curriculum vitae and list of references, in confidence to **Human Resources Department, Box JDM-91151, PARKE-DAVIS Research Division, Warner-Lambert Company, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment."**

"Equal Opportunity in Action"



PARKE-DAVIS

A DIVISION OF **WARNER LAMBERT**

ROCHE

GRADUATE FELLOWSHIPS

Roche Institute Of Molecular Biology

Applications are invited for graduate fellowships in a program sponsored jointly by the Roche Institute of Molecular Biology and the Department of Biological Sciences at Columbia University. Selected students will complete their thesis research at the Roche Institute while academic requirements will be fulfilled in the Department of Biological Sciences at Columbia. This program is limited in size and highly competitive. Upon completion of the program, students will receive a PhD degree from Columbia University. Persons holding a doctoral degree earned at any time and in any field are not eligible to apply. The Predoctoral Fellowships are intended for students who are at or near the beginning of their graduate study.

The Roche Institute of Molecular Biology, founded in 1967, is dedicated to basic research in emerging areas of molecular biology. Staff members enjoy complete independence in their choice and pursuit of research problems. The Institute is located in suburban New Jersey, approximately 10 miles west of Manhattan, making it readily accessible for lectures and courses at Columbia University and other educational centers in New York City.

Fellowships include a stipend (equivalent to the Columbia University graduate stipend) and paid tuition. GRE and TOFEL scores are required. **Applications must be received by January 1 to be considered for the following academic year.**

For further information and application form, please contact: **Administrative Office, Roche Institute of Molecular Biology, Nutley, New Jersey 07110; (201) 235-2783.** We are an equal opportunity employer.

ROCHE

Hoffmann-La Roche

Group Leader Drug Delivery

NOVA PHARMACEUTICAL CORPORATION, a leading Research & Development company in Baltimore, MD, seeks a scientist who will lead our drug delivery technology group in the development of new drug delivery based pharmaceutical products. The Group Leader will participate in business discussions and interface with clinical, regulatory and manufacturing groups both internally and externally.

Qualified candidates should have a Ph.D. in Pharmacy, Chemistry or Chemical Engineering and several years' experience with bioresorbable polymers and/or drug delivery systems, project management and product development involving drug delivery. Proven leadership skills and excellent oral and written communication skills are required.

NOVA PHARMACEUTICAL CORPORATION is a small and growing company providing a challenging work environment. We offer a competitive salary and benefits package which includes paid health (including prescription plan), life and dental insurance; profit sharing; 401(k) savings plan; stock options and relocation assistance.

For immediate consideration, please send your CV with salary history to:

NOVA PHARMACEUTICAL CORPORATION
Personnel-91-015
6200 Freeport Centre
Baltimore, MD 21224-6522.

Nova is an equal opportunity employer offering a smoke-free work environment.



Postdoctoral Fellowship Molecular Pathology

Genentech, Inc., a leader in biotechnology research, currently has the following exceptional opportunity.

This unique postdoctoral research position offers you the opportunity to investigate a transgenic mouse model of diabetes to determine the molecular pathogenesis and its relevance to the human disease. You will work closely with scientists of both the pathology and transgenic groups, in state-of-the-art facilities. This position requires a Ph.D. with emphasis in pathology. A D.V.M. or M.D. with advanced training in pathology will also be considered.

Our extensive benefits package includes fully paid dental/medical/vision coverage for you and your dependents, child care facilities, free health club membership, and an employee stock purchase plan. For immediate consideration, please send your resume to Yvonne Davino, Genentech, Inc., Human Resources Dept. YSNG, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

Genentech, Inc.



THE SCIENCE RECRUITMENT "FOUR-DAY CLOSE"

Now you can see your ad in SCIENCE four days after submission

Scientific recruiters can now advertise positions almost as soon as the need arises. Instead of reserving space a month or more in advance, you can now place your ad four days before the magazine mailing date. **SCIENCE** is mailed on the cover date.

Film (right-reading, emulsion face down) or full camera-ready art and insertion order must reach: **SCIENCE, Short Close Desk, 1515 Broadway, New York, NY 10036** by NOON Mondays (except for legal holidays when material must reach New York by NOON Fridays). Because space is limited, the four-day close page will be reserved on a first-come, first-served basis, at a 15% premium. 1/4, 1/2 or full page only.

Now you don't have to wait to find the researchers you need immediately, nor must you advertise in a Sunday paper that pans a lot of sand but not much gold. Scientific employers know that **SCIENCE** ads fill the job better. Now they fill it faster too.

You can call it "INSTANT RECRUITMENT."

For further information, telephone Ed Keller, Recruitment Advertising Manager, or Gwen Cantor, Advertising Traffic Manager at **SCIENCE**: 212-730-1050, or write to:

SCIENCE, 1515 Broadway, NY, NY 10036

CURRENT DISTRIBUTION 160,000

STAFF SCIENTISTS

Immunex Corporation, a Seattle-based biopharmaceutical company focused on the discovery, development, manufacture and marketing of products to treat immune system disorders, has created two challenging new positions in our Protein Chemistry Department:

■ Protein Chemist, 2D-PAGE

This is an exciting opportunity to develop a program in 2-D polyacrylamide gel electrophoresis (2-D PAGE). Our successful candidate will use this 2-D program to analyze proteins from tissues and cell lines for use in the discovery of new factors involved in the functioning and regulation of the immune system. 2-D PAGE databases will also be established for the identification of proteins which play a role in cytokine signal transduction events and cell surface proteins involved in cell-cell communication. Techniques used for analyzing polypeptides isolated by 2-D PAGE will include micro sequencing, capillary electrophoresis, capillary HPLC and mass spectrometry.

Applicants should possess a Ph.D. or a BS/MS with several years laboratory experience in biochemistry or a related discipline. Additional requirements include proven competence in the manipulation of small samples, radiolabeling cell cultures, complex data analysis using micro-computers, and excellent communication skills. Preference will be given to candidates with experience running a 2-D PAGE program.

■ Biophysical Protein Chemist

This position was created to enhance our understanding of the structure-to-function relationships between cytokines and their cognate receptors and to explore new areas of investigation in cytokine signal transduction. In addition to using spectroscopy, chemical modification and other classical methods of analysis, our successful candidate will apply modern techniques including mutagenesis and molecular modeling. Additional responsibilities will include purification and analysis of protein reagents for outside collaborations in structural analysis via X-ray crystallography and heteronuclear, multidimensional NMR.

Candidates should possess a Ph.D. in biochemistry or a related discipline and 2+ years post-doctoral experience. Additional qualifications include a working knowledge of modern protein biochemistry and excellent communication skills.

Immunex Corporation offers a fast-paced, stimulating environment, competitive salaries and an excellent benefits package. For consideration, please send or fax resume to:

IMMUNEX CORPORATION
Attn: Human Resources Dept.
51 University Street
Seattle, WA 98101

Fax: (206) 621-7977

Equal Opportunity Employer

RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

Amgen is an innovative and creative leader in the biotechnology industry pioneering the discovery and development of human therapeutic products through applied biotechnology. We have the following research opportunities available immediately.

MOLECULAR BIOLOGY

Dept. #609

Several positions are available for individuals at the BS or MS level with experience in molecular biology (basic molecular biology skills including cDNA cloning and gene expression), mammalian cell culture, and some experience with *in vivo* assays. Experience in hematopoietic systems and transgenic animals is highly desirable.

BIOCHEMISTRY

Dept. #610

These positions require a BS or MS in Biochemistry or a related discipline and a minimum of two years' relevant experience. Candidates should have experience in the purification and characterization of proteins, including polyacrylamide gel electrophoresis and column chromatography. Experience with HPLC, FLPC and RIA is highly desirable and required for some positions.

ASSAY DEVELOPMENT

Dept. #611

This position requires a BS in Biochemistry or a related field and a minimum of one year's experience in SDS-PAGE, IEF, and Western Blotting. Prior background in methods development and assay validation is particularly desirable.

Amgen offers a stimulating and challenging environment on the leading edge of biotechnology as well as an excellent compensation and benefits package. If you have the necessary skills and qualifications and would like to be a part of an organization that places a high priority on its human resources, please send a resume, in confidence, to:

AMGEN, INC.
Recruitment, Dept. # (please specify)
Amgen Center
Thousand Oaks
CA 91320-1789

Equal
Opportunity
Employer

AMGEN

POSITIONS OPEN

M.D./Ph.D. FELLOWSHIPS

The Medical University of South Carolina offers stipends (\$10,200 to \$15,000) for studies leading to combined M.D./Ph.D. degrees in each of the basic biomedical sciences and molecular and cellular biology/medicine. Contact: **Director, Medical Scientist Training Program, College of Graduate Studies, MUSC, 171 Ashley Avenue, Charleston, SC 29425.**

MAJOR NATIONAL PATENT LAW FIRM located in New York City seeks highly qualified Ph.D. scientists in biomedical fields interested in second career opportunities in Intellectual Property law. Demonstrated technical writing skills essential. Competitive salaries and benefits, and opportunities for challenging assignments. Send résumé to:

Box 10
SCIENCE Classified Advertising
1333 H Street, N.W., Room 940
Washington, DC 20005

POSTDOCTORAL/RESEARCH ASSOCIATE

POSTDOCTORAL POSITIONS are immediately available in the area of molecular and cellular biology of growth factors and their roles in the control of hepatocytes growth. Projects include molecular mechanisms of growth factor gene activation, receptor-ligand interaction, site-directed mutagenesis, and transgenic mice production. Experience in genomic and cDNA cloning, DNA sequencing, protein purification and other techniques in molecular and cellular biology and biochemistry are preferred. Send curriculum vitae to: **Dr. George Michalopoulos, M.D. Ph.D., Professor and Chairman, Department of Pathology, University of Pittsburgh, School of Medicine, 720 Scaife Hall, Pittsburgh, PA 15261. Telephone: 412-648-8657; FAX: 412-648-1916.**

POSTDOCTORAL RESEARCH ASSOCIATE.

To study the gene-specific actions of synthetic oligonucleotides in the modulation of a collection of enzymes gene expression. A background in molecular biology and/or molecular pharmacology would be useful. Send curriculum vitae and the names of three references to: **Patrick Iversen, Ph.D., Department of Pharmacology, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-6260. The University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

Position available for recent Ph.D. to study the regulation of dihydrodiol dehydrogenases involved in the detoxication of polycyclic aromatic hydrocarbons. Previous experience in recombinant DNA techniques required. Career advancement possible. Send curriculum vitae and names of three references to: **Dr. Trevor M. Penning, Department of Pharmacology, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6084.**

POSTDOCTORAL RESEARCH ASSOCIATE, NEUROCHEMISTRY/MOLECULAR BIOLOGY. Position available immediately in established laboratory. Salary commensurate with experience, annual renewal. Send curriculum vitae, description of laboratory experience, and names of three references to: **Dr. Dennis Drescher, Laboratory of Bio-otology, Wayne State University School of Medicine, 540 East Canfield Avenue, Detroit, MI 48201. Wayne State University is an Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA)

ASSISTANT RESEARCH IMMUNOLOGIST

Immediate opening for assistant research immunologist to perform research on the correlation of the HLA-DP antigen with kidney and bone marrow transplant outcome and disease. Ph.D. or M.D. with minimum of 3 years of experience in HLA-DP serology and genetics and in molecular biology required. Salary: \$41,600 per year. Send curriculum vitae, statement of research interests, and names of three references to: **Paul I. Terasaki, Ph.D., UCLA Tissue Typing Laboratory, 950 Veteran Avenue, Los Angeles, CA 90024-1652. UCLA is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

RESEARCH ASSOCIATE. For university/medical research and treatment in southwestern Ohio. Studies of proto-oncogene expression in human leukemia cells or solid tumor cells by molecular biological techniques. Electing the genes (C-myc, C-myb, histone-3, C-fms, C-fes and C-fos) associated with proliferation and differentiation in neoplastic cells. Comparing and quantitating the level and pattern of express transcripts in mature and immature myeloid cells. Investigating p-glycoprotein expression associated with multidrug resistance (MDR) to cytostatic antineoplastic drugs using four monoclonal antibodies and immunohistochemical method. Measuring and comparing the content of MDR-RNA in drug resistance (CEM/VLB 500) and drug-sensitive (CCRF-CEM) human cells. Studies involving proliferation, differentiation and expressed transcripts of *abl/bcr* gene in chronic leukemia cells cultured under the control of growth factors (IL-3, GM-CSF, etc.) in vitro. Analysis of mutation in vitro and in vivo. Job requires 5 years of college studies in medicine and 4 years of experience as research associate or staff physician. Experience must be in following: (1) Oncogene studies in leukemia and lymphoma using oncogene cDNA probes (C-myc, C-abl, C-myb, C-fms, C-fos and C-fes); labeling cDNA probes by nick translation; and analysis of oncogene polymorphism and transcript pattern with gel electrophoresis and (Southern/Northern) blot-hybridization system. (2) Identification of mutation in vitro and in vivo, and the characterization of the types of mutations. (3) Cell culture, monoclonal antibodies and immunohistochemical techniques. (4) Cryopreservation of bone marrow cells and reconstitution hematopoietic function under the condition of high dosage of chemotherapy and irradiation. (5) Clinical research on allogeneic and autologous bone marrow transplantation in lymphoma and leukemia. (6) Experimental and pathological studies on graft versus host disease (GVHD) in allogeneic bone marrow transplantation. Forty hours per week; 8:00 a.m. to 5:00 p.m. Salary: \$27,256.45 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **J. Davies, JO#1099710, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

RESEARCH ASSOCIATE. Stanford University/Pulmonary and Critical Care Medicine. Searching for Ph.D. who will help direct NIH-supported laboratory studying neutrophil-mediated acute lung injury; goals are to understand mechanisms of neutrophil stimulation and suppression at cellular, biochemical, and molecular biology level and devise strategies which can minimize neutrophil-mediated acute lung injury in animal models and eventually in humans; involves use of animal models, cell culture, basic biochemical, immunologic, and molecular biologic techniques, including HPLC, electrophoresis, and ELISA assays; will be expected to apply initiative and judgment based on knowledge and understanding of scientific theory and function independently and supervise a variety of research fellows in training in proper use of laboratory, instruments, and techniques, data analysis and reporting of findings. Send curriculum vitae and three references to: **Thomas A. Raffin, M.D., Chief, Division of Pulmonary and Critical Care Medicine, Stanford University Medical Center, Room H3149, Stanford, CA 94305-5236. Stanford University is an Equal Opportunity Employer through Affirmative Action.**

RESEARCH ASSISTANT. Pennsylvania State University: Environmental Resources Research Institute invites applications for a research assistant in molecular enzymology. Requires M.S., or equivalent, in medicine with specialization in biochemistry, and 2 years of experience. Expertise in IRS kinetics of multiple and hydrophobic substrate reactions, chemical modification of enzyme active sites, HPLC and GC-MS analysis of plasmalogenlyglycerol, prostaglandins and leukotrienes is required. A record of relevant publication in well-referenced journals is necessary. Salary range: \$23,000 to \$25,000. Location: Pennsylvania State University, University Park, Pennsylvania. Application deadline: 13 October 1991. Send letter of application, résumé, copies of two publications and two letters of recommendation to: **Dr. C. Channa Reddy, Environmental Resources Research Institute, Pennsylvania State University, 226 Fenske Laboratory, Department #SM, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.**

POSITIONS OPEN

POSTDOCTORAL/RESEARCH ASSOCIATE MOLECULAR BIOLOGY—MOLECULAR TOXICOLOGY

To study molecular mechanism(s) involved in the expression of proteins following xenobiotic insult. Techniques include cell culture, immunoblot analysis, hybridization analysis (Northern, Southern, etc), PCR, primer extension, DNA library construction/screening, cloning, sequencing, mobility shift assays, transfection, cell-free translation and transcription. Send curriculum vitae and the names of three references to: **Dr. Raymond F. Novak, Director, Institute of Chemical Toxicology, 2727 Second Avenue, Room 4000, Detroit, MI 48201. Wayne State is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE. Maintain and develop scanning tunneling, electrochemical scanning tunneling, atomic force and electrochemical atomic force microscope facilities. Investigate variety of material structures using STM's and AFM's. Manage and coordinate activities within STM-AFM laboratory. Salary: \$31,000 per year. Requirements: Ph.D. in analytical chemistry; published research in physics, surface analysis, electrochemistry and analytical instrumentation; 2 years of experience as research assistant or associate, including supervising or teaching in laboratory environment; experience in characterization and design of materials. Résumés to: **Dick Hewetson, #1-206, MDJT, 390 North Robert Street, St. Paul, MN 55101.**

UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA)

ASSISTANT RESEARCH IMMUNOLOGIST

Immediate opening for assistant research immunologist to perform research on the identification and characterization of HLA and non-HLA antigens on monocytes and granulocytes and on kidney graft survival. M.D. or Ph.D. with minimum of 3 years of experience in histocompatibility, HLA serology and methodology and molecular biology/genetics required. Salary: \$41,600 per year. Send curriculum vitae, statement of research interests and names of three references to: **Paul I. Terasaki, Ph.D., UCLA Tissue Typing Laboratory, 950 Veteran Avenue, Los Angeles, CA 90024-1652. UCLA is an Equal Opportunity/Affirmative Action Employer.**

TOXICOLOGIST. The Environmental Protection Agency's regional office in Denver, Colorado, is seeking applications from qualified individuals for the position of toxicologist. The position involves evaluation of human health and/or ecological hazards associated with environmental contamination in the Superfund Program. An individual with a Ph.D. in an appropriate discipline or field of biological, medical, or veterinary sciences or in toxicology and 3 years of specialized experience in or directly related to toxicology is preferred.

The position will be filled at the GS 12/13 level; salary range 37,294 to 57,650 per annum depending upon qualifications. *Candidate must be a U.S. citizen. An Equal Opportunity Employer.* To receive announcement and application form when formally announced, contact Ms. Valerie Taylor, telephone: 303-293-1499, no later than 27 September 1991.

We'll Help You Build A New Lab



Let the free Science product information service put you in touch with the vendors whose products you will need.

Simply write us a letter stating the specifics about your proposed lab and the instruments and supplies you need. We will do the rest. Write to:

SCIENCE Magazine
New Lab Service Department
1515 Broadway
New York, NY 10036 **SCIENCE**

THE LADY DAVIS FELLOWSHIP TRUST

P.O. BOX 1255, JERUSALEM 91904, ISRAEL
TEL./FAX 972-2-663848

GRADUATE, POST-DOCTORAL AND PROFESSORIAL FELLOWSHIPS FOR 1992-93 AT THE HEBREW UNIVERSITY OF JERUSALEM OR THE TECHNION-ISRAEL INSTITUTE OF TECHNOLOGY, HAIFA

APPLICATION INFORMATION: Lady Davis Graduate and Post-Doctoral Fellows are selected on the basis of demonstrated excellence in their studies and promise of distinction in their chosen fields of specialization.

Graduate applicants may apply during their senior undergraduate year or after they have undertaken study in a graduate school. Post-doctoral applicants to the Hebrew University may apply not later than 3 years after completion of their doctoral dissertation. The Fellowships are tenable for one academic year and may be extended for another year. The grant covers travel, tuition fees and reasonable living expenses.

VISITING PROFESSORSHIPS are intended for candidates with the rank of Full or Associate Professor at their own institution. They are tenable from one semester to a full academic year. The grant includes a professorial salary and travel.

Deadline : November 30, 1991.

Requests from applicants (including Israelis), indicating category of Fellowship, should be sent to above address.

POSTDOCTORAL POSITION is available to study the regulation of macrophage growth by CSF-1 and cAMP. Recent Ph.D.'s interested in joining a multidisciplinary group applying techniques of molecular biology and biochemistry to investigate the mechanism by which signal transduction pathways coordinate membrane phospholipid synthesis with the cell cycle should send their curriculum vitae and names of three references to: **Dr. Charles O. Rock, Department of Biochemistry, St. Jude Children's Research Hospital, Memphis, TN 38105. An equal opportunity/affirmative action employer.**

W.M. KECK CENTER FOR COMPUTATIONAL BIOLOGY

A joint program of
BAYLOR COLLEGE OF MEDICINE & RICE UNIVERSITY

SECOND KECK SYMPOSIUM ON COMPUTATIONAL BIOLOGY

NOVEMBER 14, 1991 HOUSTON, TEXAS

SPEAKERS

David Agard, University of California, San Francisco
"Acquisition, Processing, Display and Analysis of Three and Four-Dimensional Biological Image Data"

Bruce Buchanan, University of Pittsburgh
"Symbolic Computation for Scientific Investigation, or What More Is There Beyond Supercomputers?"

Chris Fields, Institute for Neurological Disorders & Stroke, NIH
"Informatics Support for Large Scale Sequencing"

J. Andrew McCammon, University of Houston
"Computational Molecular Biophysics"

Gerald Myers, Los Alamos National Laboratory
"Analyses of AIDS Viruses"

POSTER PRESENTATIONS ARE INVITED. Abstracts due 11/1/91

For further information contact: Sue K. Wong
W. M. Keck Center
P. O. Box 1892
Houston, Texas 77251
TEL: (713) 285-5352
FAX: (713) 283-5154
Internet: keck@rice.edu



MacroNex, a newly-emerging drug discovery and research company located in the Research Triangle area of North Carolina, is positioning itself to be a world leader in developing human therapeutics based on the physiological regulation of macrophages. We currently have openings available for the following key professionals.

MACROPHAGE BIOLOGIST

The successful candidate will have a Ph.D. Degree with a minimum of 3+ years experience in cell biology, immunology or a related area. Experience in bioassays for monocyte/macrophage function is required; experience in immunoassay development and the measurement of cytokines is desired. We seek an energetic, highly-motivated individual who possesses excellent interpersonal skills. Selected individual will lead a team of 3-5 scientists. **Refer to Job # 101 on all resumes.**

CELL/MOLECULAR BIOLOGIST

The successful candidate will have a Ph.D. Degree with a minimum of 3+ years experience in cell or molecular biology or a related area. Experience in working with monocytes/macrophages of human or murine origin is required; experience in the study of receptor coupling and gene activation is highly desired. Preference will be given to candidates experienced in molecular biology techniques, particularly the isolation of RNA and Northern blotting. **Refer to Job # 103 on all resumes.**

We offer competitive salaries and benefits including employee stock participation. Candidates interested in either of the above positions should send their resume, indicating the corresponding Job #, and CV with names, addresses and phone numbers of three references, to: **MacroNex, Inc., 1000 Park Forty Plaza, Suite 300, Durham, NC 27713.**

MacroNex, Inc.
The Macrophage Company

An Equal Opportunity Employer

POSITIONS OPEN

RESEARCH

MycoGen Corporation, a progressive agricultural biotech company located in San Diego, California, currently has the following openings:

FERMENTATION RECOVERY. Entry-level research assistant position to assist in development, scale-up and validation of recovery processes for biopesticide products. B.A./B.S. in food science, microbiology or engineering. Some laboratory experience and knowledge of industrial processing/drying equipment preferred. Coursework in microbiology and math necessary.

DOWNSTREAM PROCESS DEVELOPMENT. Entry-level research assistant position to assist in implementing methods to stabilize microbial cells for use as biopesticides and in the scale-up of methods to manufacturing. Will help develop methods for characterization and evaluate product stability. B.A./B.S. in microbiology, biochemistry, or food science. Some laboratory experience and knowledge of computer programming and statistics classes preferred.

BIOANALYTICAL CHEMIST. Develop and validate analysis methods for recombinant proteins and fatty acids; research fundamental chemistry of protein and fatty acid products. Experience with SDS-PAGE, HPLC and GC. Team-oriented, excellent communicator required. Ph.D. in analytical chemistry or biochemistry; 2 to 5 years of experience in development/validation of analytical methods.

We offer a competitive compensation and benefits package, including medical/dental, stock purchase plan, 401k, and a fitness center. Please send résumé identifying position applied for and salary requirements to: **MycoGen Corporation, Human Resources Department, 5451 Oberlin Drive, San Diego, CA 92121. Equal Opportunity Employer.**

ASSOCIATE RESEARCH SCIENTIST/BIOCHEMIST. To conduct independent investigation of pulmonary surfactant proteins and protein-lipid interactions by various biochemical means, including chromatography, electrophoresis, electroblotting, immunostaining and protein sequencing. M.D. or Ph.D. in life sciences plus 2 years of experience required. Salary: \$46,000 per year. Place of employment/interview: Los Angeles, California. Send this ad and your résumé to: **NOF #311, P.O. Box 9560 Sacramento, CA 95823-0560** no later than 28 September 1991.

POPULATION BIOLOGIST

The Department of Biology at Davidson College plans to appoint a population biologist with strong quantitative, computer and teaching skills. The rank of the appointment is open. The successful applicant will teach in an introductory biology course and will develop courses in quantitative biology and in his/her specialty. The appointment is expected to start 1 July 1992. Interested persons should send curriculum vitae, a statement of teaching philosophy, selected reprints and three letters of reference to: **Dr. John H. Williamson, Department of Biology, Davidson College, Davidson, NC 28036**, by 15 October 1991. *Women and minorities are encouraged to apply.*

SOMATIX THERAPY CORPORATION

Somatix Therapy Corporation is a leading biotechnology company utilizing gene transfer and cellular transplantation technologies to develop cell-based protein delivery systems for human therapeutics. Positions are available immediately for highly motivated and qualified individuals.

RESEARCH SCIENTIST (MOLECULAR BIOLOGY): Candidates should have experience with gene expression in mammalian cells. Ph.D. plus postdoctoral experience required.

RESEARCH SCIENTIST (CELL BIOLOGY): Position requires experience studying the role of extracellular matrices, cell-cell interactions and/or cell adhesion molecules in mammalian cell growth and differentiation. Ph.D. plus postdoctoral experience required.

We offer a competitive salary and compensation package. Please submit curriculum vitae to: **Department #31, Somatix Therapy Corporation, 850 Marina Village Parkway, Alameda, CA 94501. Equal Opportunity Employer.**

POSITIONS OPEN

MICROBIOLOGIST

AMVAX, Inc., a human vaccine research, development, and manufacturing company, has these position openings:

Ph.D./masters in microbiology/biochemical engineering with 2 to 6 years of industrial experience. The selected candidate will be responsible for bacterial fermentation process development and improvement.

PROCESS/VALIDATION ENGINEER

M.S./B.S. chemical or biochemical engineering with 3 to 7 years of pharmaceutical GMP experience. Proven validation track record is essential. Scale-up work, process transmittals, technology innovations and computerized process control experience necessary.

PROTEIN CHEMIST

Ph.D./masters in biochemistry with 2 to 6 years of industrial experience. The selected candidate will be responsible for GMP purification process development/improvement and assay development. Hands-on experience in protein downstream processing, immunoassay development, PLPC and large-scale LC columns is desirable.

An Equal Opportunity Employer. Mail or fax résumé to:

**AMVAX, Inc.
Personnel Director
12040 Indian Creek Court
Beltsville, MD 20705
FAX: 301-470-6198**



**Agricultural United States
Research Service Department of
Agriculture**

MOLECULAR GENETICIST

The U.S. Department of Agriculture (USDA), ARS, Avian Disease and Oncology Laboratory, East Lansing, Michigan, is seeking a molecular geneticist (permanent, full time, GS-12/13) to lead research to develop a map of the chicken genome and to identify and map genes that determine disease resistance and other economic traits. This is a base-funded, high priority ARS program conducted in cooperation with Michigan State University. Knowledge of genetics and molecular biology required. *U.S. citizenship required.* A Ph.D. and experience in mapping eukaryotic genes desirable. Salary commensurate with experience (range: \$37,294 to \$57,650). For information about application procedures, call **517-337-6825**. Incomplete applications will not be accepted. Applications must be marked **1N072** and must be postmarked by 15 October 1991. For information about the position, call **Dr. R. L. Witter at 517-337-6828**. *An Equal Opportunity Employer.*

STATISTICIAN. Position available for a Ph.D. level statistician, preferably with experience in an academic biomedical setting, to head an academic biostatistics facility at the University of Connecticut Health Center. Responsibilities include consultative support for ongoing research programs. Opportunities exist for interaction with federally funded research centers, participation in academic programs, collaborative research efforts and independent research. Salary and possible faculty appointment (not leading to tenure) will be commensurate with experience. Applications should be sent to: **Leonard P. Paplauskas, Assistant Vice President for Research, University of Connecticut Health Center, Farmington, CT 06030**. Include curriculum vitae, description of relevant experience, and names of at least three references. *An Affirmative Action/Equal Opportunity Employer, M/W/H.*

STATISTICAL BIOSTATISTICIAN

To develop statistical techniques for analysis of Human Event Related Brain Potential including bipole localization and topographic analyses. A Ph.D. is required for faculty appointment. Knowledge of nonlinear optimization techniques as well as UNIX quite essential. Send résumé to:

**Dr. Henri Begleiter
SUNY Health Science Center
Neurodynamics Laboratory
450 Clarkson Avenue, Box 1203
Brooklyn, NY 11203**

POSITIONS OPEN

STAFF VIROLOGIST. Position will involve secondary in vitro evaluation of candidate antivirals found active in a primary screening operation, mechanism of action studies, and further evaluation in several animal studies. Additional duties include training junior staff and overseeing their work, writing independent research proposals and reports. M.D. or Ph.D. degree required with 2 years of postdoctoral research experience. Experience should include postgraduate work experience in antiviral research with filoviruses (Ebola), arenaviruses (Lassa fever), and bunyaviruses (Hantaan) in BSL-3 and BSL-4 containment facility. Demonstrated administrative and technical supervisory skills are also required. Forty hours per week, 7:45 a.m. to 4:30 p.m. Salary: \$4000 per month. Mail résumé and copy of ad to: **Department of Economic and Employment Development, 1100 North Eutaw Street, Room 212, Baltimore, MD 21201. Job Order No. 9048636.** Job location: Fort Detrick, Maryland. *Equal Opportunity Employer/Affirmative Action.*

COURSES AND TRAINING

SINGLE CELL GEL (SCG) WORKSHOP 18 TO 20 NOVEMBER 1991 INTEGRATED LABORATORY SYSTEMS RESEARCH TRIANGLE PARK NORTH CAROLINA

The SCG assay is a microelectrophoretic technique for the sensitive detection of intercellular differences in DNA damage and repair using small numbers of individual cells. The workshop includes both seminars and hands-on demonstrations of in vivo, in vitro and human applications. Cost: \$650.

Contact: **Integrated Laboratory Systems, Genetic Toxicology Department, P.O. Box 13501, Research Triangle Park, NC 27709. Telephone: 919-544-4589.**

ANNOUNCEMENTS

REQUEST FOR PROPOSALS

The Minnesota Pollution Control Agency announces the publication of a Request For Proposals (RFP) for the writing of an Ecological Risk Assessment Guidance Document. Closing date for receipt of proposals is 7 October 1991. Copies of the RFP can be obtained by calling or writing: **Dr. David A. Belluck, Minnesota Pollution Control Agency, 520 Lafayette Road, St. Paul, MN 55155. Telephone: 612-296-7874.**

MARKETPLACE

HIGH PURITY PHOSPHOLIPIDS

Grams to kilograms, top quality, good prices. DSPC, DPPC, DMPC, DLPC, DOPC, EPC, DLoPC, H-SPC



Princeton Lipids
1-800-678-LIPIDS (5474)

Circle No. 24 on Readers' Service Card

DNA SEQUENCING

- Fast. Accurate. Affordable.
- Definitive Nucleotide Sequence
- Subcloning, Mapping, *in vitro* Mutagenesis, Library Construction
- Complete Molecular Biology Services

Ambion 1-800-888-8804
1-512-445-7139 FAX

Circle No. 125 on Readers' Service Card

Custom DNA Purified and Delivered in 48 hours.

\$10.00 a base for the first 15 bases, \$7.50 for each additional base. No additional charges.

Research Genetics
1-800-533-4363

Circle No. 7 on Readers' Service Card

Discover new solutions to your bioanalysis problems

Gel Electrophoresis

Electroelutor/ minigel apparatus:

Little Blue TankTM recovers proteins and DNA quickly from gels and other sample matrices. As a running apparatus, it also separates your DNA samples in a convenient 10 x 9 cm minigel format.

Power supplies: Isco quality power supplies put an end to problems of safety, reliability, and reproducibility.

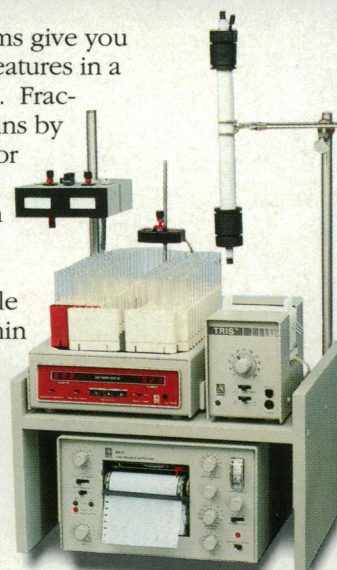
Circle # 106



Low-pressure LC

Compact LC systems give you big capacity and features in a small bench space. Fractionate your proteins by time, drop count, or peak shape. Solve difficult separation problems with optional gradient programming. Scale up easily to liter/min flow rates. And forget about lost samples and coldroom troubles.

Circle # 107



Capillary Electrophoresis

CE is a powerful new tool for separation and analysis of proteins, peptides, organic acids, nucleotides, and other sample mixtures.

Isco's two CE systems give you femtomole detection sensitivity with nanoliter samples.

One system is automated with computer data management; the other is a compact, affordable "personal CE".

Circle # 108



HPLC

Robust, reliable HPLC systems give you modular flexibility and programmability at a fair price—so you can still get great HPLC value even on a tight budget. And for prep chromatography, a Foxy[®] 200 programmable fraction collector will always get the most out of your LC system.

Circle # 109



Phone (800)228-4250 now!

**Outside U.S.A., contact distributor below
or fax Isco Europe AG (41-1)920 62 08**

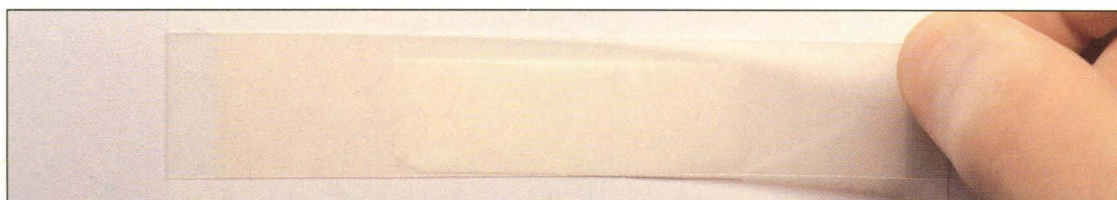
Isco, Inc.
P.O. Box 5347
Lincoln, NE 68505 U.S.A.

Isco Europe AG
Brüschstr. 17
CH8708 Männedorf, Switzerland

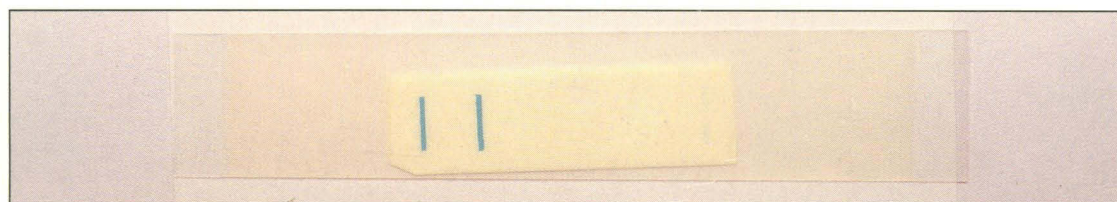


Distributors • Australia: Australian Chromatography Co. • **Austria:** INULA • **Belgium:** N.V. Mettler-Toledo S.A. • **Canada:** Canberra Packard Canada, Ltd. • **Denmark:** Mikrolab Aarhus • **Finland:** ETEK OY • **France:** Ets. Roucaire, S.A. • **Germany:** Colora Messtechnik GmbH • **Italy:** Analytical Control Italia S.p.A. • **Japan:** JSI Co. Ltd. • **Korea:** Sang Chung, Ltd. • **The Netherlands:** Beun-de Ronde B.V. • **Norway:** Dipl. Ing. Houm A.S. • **Spain:** CHEMICONTROL, S.L. • **Sweden:** Spectrochrom AB • **Switzerland:** IG Instrumenten-Gesellschaft AG • **U.K.:** Jones Chromatography Ltd. •

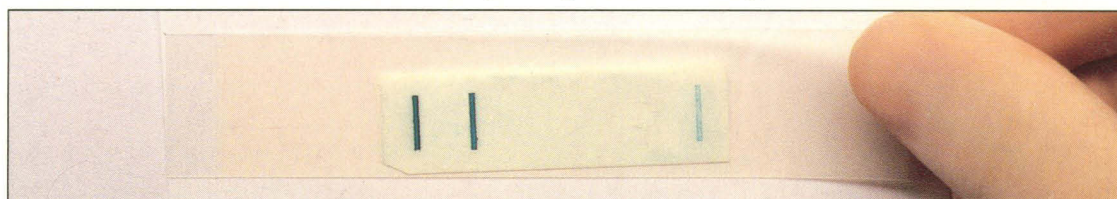
Watch A One Minute Western.



Simply overlay the Enzygraphic Web on your prepared Western.



Within seconds your target bands start to appear.



Bang...your target bands appear detected and amplified, in under 60 seconds!

IBI's Enzygraphic Web™ Delivers All The Action In Under A Minute.

Quick and ultra-sensitive Western Blot detection. With IBI's Enzygraphic Web you've got the fastest results in the business.

With the Web you can forget about messing with substrate chemicals or fumbling around in the dark. It performs flawlessly under room light, using a patented dry chemistry process that keeps you free and clear of radioactive probes.

Dead-On Accuracy And A Quick Draw. The Best Western Every Time.

Our High Sensitivity version of the Enzygraphic Web is more sensitive than any other colorimetric system for visualiz-

ing HRP conjugated proteins and antibodies. In less than a minute it out-draws anything in the Western territory. And even at that incredible speed, the High Sensitivity Web provides detection sensitivity that is at least 10 times more revealing than radioactive methods using ^{125}I labeled probes and autoradiography detection.

The Rapid Screening Enzygraphic Web is your hired gun when cost-effective speed is your target.

Designed for researchers who screen a high volume of samples, the Rapid Screening Web provides an economical way to obtain one minute results with detection sensitivity that is comparable or

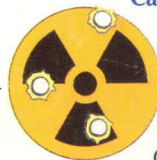
better than conventional colorimetric systems.

IBI's Enzygraphic Web is available in High Sensitivity (Catalog No. IB833 0532) or Rapid Screening (Catalog No. IB821 7051) versions in 15-count boxes of 4"x 5" sheets.

Call On The Cavalry.

In the U.S., place a quick order with your local **VWR** Sales Office or contact IBI Technical Resources (800) 243-2555 for more information.

Outside of the U.S., contact the IBI International Sales Department at (203) 786-5600 for the name of the distributor nearest you.



INTERNATIONAL BIOTECHNOLOGIES, INC.
Subsidiary of Eastman Kodak Company
P.O. Box 9558, New Haven, CT 06535

Distributed in the U.S. by

VWR Scientific

A **VWR** COMPANY

* Australia Integrated Sciences (02) 436 2611, Canada Terochem Scientific (416) 940-1831, Denmark KEBO A/S 44 681800, Finland KEBO OY 90 437 5640, France Amilabo 78 905688, APELEX 1-69306970, India Biotech India (542) 311473, Israel TAMAR 02 520279, Italy M-Medical 055 676 441, Japan DRG International Japan 03 3358 1822, Korea LRS Laboratories 02 924 8697, Norway KEBO AS 02 301120, Portugal Quimigranel 8581564, Spain Quimigranel 91 5561614, Sweden KEBO AB 08-621 3400, Switzerland Tecnomara (01) 830 2277, Taiwan Janson Technology Co. 02 363 9113, United Kingdom IBI Ltd. 0223 242813, USA VWR Scientific, West Germany Tecnomara (06404) 8090.

Circle No. 88 on Readers' Service Card