

### ***Inhibitor of RNA Polymerase III***

Tagetin RNA Polymerase Inhibitor is the only known compound that selectively inhibits activity of RNA polymerase III from a variety of eukaryotic organisms, including mammalian cells, yeast, *Xenopus* oocytes, and *Drosophila*. It complements the activity of alpha-amanitin, which inhibits RNA polymerase II. Tagetin RNA Polymerase Inhibitor is also a potent inhibitor for *Escherichia coli* RNA polymerase, but it does not inhibit phage-encoded polymerases such as SP6 or T7. In plants, it appears to inhibit only chloroplast RNA polymerase. Epicentre Technologies. Circle 435.

### ***Laboratory Balances Feature Microchip Technology***

The LC Series of laboratory balances features a new technological approach in which the balances are controlled by a specially designed single-chip microcomputer. The new design allows greater speed in weighing. The balances can filter out most vibrations, stabilize almost instantaneously, and generate accurate data to peripheral devices. A reflective backlit liquid crystal display is easy to read in bright or poor light. The line includes 18 models. The top models are equipped with a built-in, automatic calibration feature. Sartorius Instruments. Circle 439.

### ***T Cell Monoclonal Antibodies***

Identi-T CyM1 is the latest addition to a line of monoclonal antibodies to the human T cell antigen receptor (TCR). It recognizes all forms of the  $\gamma$  chain of the human TCR and can be used to investigate the roles of T lymphocytes in lymphoid malignancies, autoimmune diseases, and immune system disorders. T Cell Sciences. Circle 444.

This monoclonal antibody, which reacts with surface receptors on all murine  $\gamma\delta$

TCR-bearing cells and does not cross-react with receptors on  $\alpha\beta^+$  T cells, can be used in flow cytometry, direct activation of  $\gamma\delta$  TCR-bearing cells, and immunoprecipitation. Pharmingen. Circle 445.

Anti-mouse CD3- $\epsilon$ , clone 145-2C11, is a marker for targeting mature T cells expressing the TCR. In addition, the antibody can be used to directly activate T cells, independent of antigen binding. Boehringer Mannheim Biochemicals. Circle 446.

### ***Calculator Combines with Computer***

The HP 48SX scientific expandable calculator combines the ease of use of a calculator with the storage and display capabilities of a personal computer. The calculator, from Hewlett-Packard, can be linked to a computer, giving the advantage of a large monitor and keyboard for the calculator, and adding software to the computer. The handheld unit has an RS-232C serial interface to



IBM-compatible computers, a two-way infrared interface to communicate with other HP 48SX calculators and an infrared printer, and two expansion slots that accept read-only-memory and random-access-memory cards. The instrument includes many features that the manufacturer believes are the first for a calculator, such as automatic unit conversion. Circle 433.

### ***Chromatography Software***

Lab Calc is a program for straight chromatography as well as chromatography-spectroscopy techniques. Its real-time peak picking and integration capabilities allow

fast and accurate quantitative and qualitative evaluation of chromatographic samples. Users can develop their own applications, automate manual procedures, and control external devices. Lab Calc, which supports up to eight independent channels for data acquisition, runs on IBM-compatible computers. Galactic Industries. Circle 443.

### ***Lab Partner Calculator***

Lab Partner is a preprogrammed, handheld computer designed specifically for laboratory applications. Its optional printer can provide a written record with times and dates. The Lab Partner calculates the amount of material needed to prepare solutions and the amount of solvent needed. It computes the amount of concentrated solution needed to fortify an existing solution and makes instant conversions between units. It determines enzyme-specific activities, calculates equivalent weights, and performs centrifuge calculations. A Lab Partner Plus model is available with additional features, including a mixture program and radioactive decay program. J & H Berge. Circle 447.

### ***Molecular Biology Software for the Macintosh***

The abilities of Lasergene molecular biology software for the Macintosh computer include shotgun sequence gel assembly, database searches of GenBank and the National Biomedical Research Foundation Protein Identification Resource, and restriction site analysis. DNASTAR. Circle 455.

### ***Literature***

*Biotech and Lab Animal Research Equipment* is a 44-page catalog. Columbus Instruments. Circle 469.

*PC Fast Facts* is a new product-rating newsletter for personal computer users. The newsletter editors analyze the product ratings in other publications such as business magazines, computer magazines, and rating reports to determine which products rate highest. Whitney-Stearns Corp. Circle 470.

*The Temperature Handbook* contains more than 1000 pages of equipment for temperature measurement, including thermocouple probes and wire, handheld meters, relative humidity measuring devices, digital and dial thermometers, computer interfaces, superconductivity and cryogenic instruments, and a technical books library. Omega Engineering. Circle 477.

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

# Personnel Placement

**SCIENCE** publishes each Friday, except the last Friday of the year, and is mailed on issue date. Personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference. **SCIENCE** reserves the right, in its discretion, to decline to publish advertisements submitted to it.

## LINE CLASSIFIED ADVERTISEMENTS

**DEADLINE:** Thursday, 10 a.m., 2 weeks prior to issue date. Advertising is accepted only in writing.

**POLICIES:** All classified ads will be edited and typeset according to **SCIENCE** style guidelines. NO ABBREVIATIONS. Any deadline for applications stated in ad must be at least 2 weeks after date of issue in which ad appears.

**CLASSIFICATION:** **SCIENCE** publishes line classified ads under the following headings: **Positions Open, Employment Agencies, Fellowships, Situations Wanted, Courses and Training, Meetings, Announcements, and Marketplace.** Advertisers should specify classification desired; however, **SCIENCE** reserves the right to decline classification requests which it believes may be misleading to readers.

**RATE:** \$41 per line, \$410 minimum, per week. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces per line. No charge for use of blind box number. No agency commission for ads less than 40 lines. To ESTIMATE ad cost, structure ad copy on a 52-character line; include any desired heading on 32-character lines. Each line of heading, one line of white space between heading and body of ad, and all partial lines (including centered reply information, if desired) are counted as full lines. Multiply total number of lines  $\times$  \$41 = approximate cost of ad, per week. (This is an approximate cost ONLY. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment. **SCIENCE** cannot provide proofs of typeset ads.)

**PREPAYMENT DISCOUNT:** A 3% cash discount is granted to all prepaid line ads. Prepayment in U.S. dollars by checks drawn on U.S. banks is required for all foreign ads.

**BOXES AND LOGOS:** Any 1-column line classified ad can be boxed and/or published with logo. No extra production charge for use of box or logo. For boxed ads, one line equals 48 characters and spaces; two additional lines will be added to cost of ad to allow for top and bottom box rules. Logos are billed according to number of lines needed to accommodate logo.

**SITUATIONS WANTED ADS:** As a service to AAAS members in good standing, **SCIENCE** offers free placement of Situations Wanted ads for individuals seeking full-time or part-time employment. A blind box may be used. Ads must be submitted in writing with text of 20 words or less, not including address or box number, and are limited to two insertions per member in each calendar year. Please enclose **SCIENCE** mailing label including AAAS membership number when submitting ad.

**CANCELLATIONS:** Deadline for cancellations is 10 a.m. Tuesday, 10 days prior to issue date.

Address ad copy or requests for information to:

**SCIENCE Classified Advertising**  
1333 H Street, NW, Room 940  
Washington, DC 20005  
Telephone: 202-326-6555  
FAX: 202-682-0816

## MARKETPLACE AND DISPLAY PERSONNEL ADVERTISEMENTS

For rates, deadlines, and information about fractional display ads (1/6 page and larger) and all **Marketplace** listings of available products and services, contact:

**Scherago Associates, Inc.**  
1515 Broadway  
New York, NY 10036  
Telephone: 212-730-1050  
FAX: 212-382-3725

## RESPONSES TO EMPLOYMENT ADS

Applicants should read Positions Open ads carefully in order to submit all required material when responding, and should especially check for any stated deadline for receipt of applications. **SCIENCE** encourages applicants for positions to investigate employment laws, nondiscrimination policies, visa requirements, and cultural differences in the country advertising for employees.

To reply to a blind box ad, address correspondence to:

**Box (give number)**  
**SCIENCE Classified Advertising**  
1333 H Street, NW, Room 940  
Washington, DC 20005

## POSITIONS OPEN

### ANATOMY/PHYSIOLOGY SEARCH REOPENED

**ASSISTANT PROFESSOR** of anatomy/physiology position at Indiana University-Purdue University at Indianapolis (IUPUI) is available in Purdue School of Science at IUPUI Columbus campus. Ph.D., a record of scholarly activity, evidence of an active program of current research, and 3 years of university teaching experience are required. Special consideration will be given to candidates whose research would benefit from access to newly created two-dimensional protein electrophoretic facilities. Salary commensurate with experience. Review of completed files will begin 21 May 1990. Send résumé and names and addresses of three references to: **Dr. Paul Bippin, IUPUI Columbus, 4601 Central Avenue, Columbus, IN 47203.** An Affirmative Action/Equal Opportunity Employer.

**AQUATIC MICROBIOLOGIST. ASSISTANT PROFESSOR** in the School of Natural and Applied Sciences at the University of South Carolina (USC) Coastal Carolina College. Full-time, tenure-track position available 16 August 1990. Search reopened. Ph.D. required. Preference given to candidates with research interests in environmental and aquatic toxicology or wetlands processes. Responsibilities include teaching introductory biology, microbiology for biology majors and prehealth professionals, and the possibility of an upper level course, as appropriate. The successful candidate is expected to develop a research program which includes undergraduate majors. USC Coastal Carolina College, the fastest growing 4-year campus of the University of South Carolina System, is located 9 miles west of Myrtle Beach. Each applicant should submit a letter of application, curriculum vitae, and names and telephone numbers of three references to: **Human Resources and Affirmative Action Office, USC Coastal Carolina College, P.O. Box 1954, Conway, SC 29526.** Screening of applications will begin immediately and will continue until position is filled. USC Coastal Carolina College is an Equal Opportunity/Affirmative Action Employer.

**ASSISTANT/ASSOCIATE AGRONOMIST/PLANT BREEDER.** Research responsibilities will be breeding and genetics of soybean in narrow row production systems. Emphasis on photoperiod groups IV through VII and host plant resistance to major disease, insects, and nematode pests are an integral part of the assignment. A Ph.D. in agronomy/plant breeding or genetics with emphasis on host plant resistance breeding required; research experience preferred. Position located at the Delta Branch, Mississippi Agricultural and Forestry Experiment Station, Stoneville, Mississippi. Send résumé, transcript, list of publications, and three letters of reference to: **Dr. William L. Barrentine, Chairman of Search Committee, Delta Branch Experiment Station, P.O. Box 197, Stoneville, MS 38776.** Mississippi State University is an Affirmative Action/Equal Opportunity Employer.

**ASSISTANT PROFESSOR, NEUROBIOLOGY/PHARMACOLOGY.** At Tufts University School of Medicine. We seek an investigator with experience or potential in supervising an independent research program. Preferred research interests include postsynaptic receptors or neurotransmitter interactions. Molecular biology experience preferred but not essential. Research support is available. Send curriculum vitae to: **Dr. Lawrence Miller, Box 1007, New England Medical Center, 750 Washington Street, Boston, MA 02111.**

### ASSISTANT PROFESSOR OF WILDLIFE ECOLOGY

The Department of Wildlife Ecology at the University of Wisconsin-Madison seeks applicants for a 12-month, tenure-track position as assistant professor. Application deadline is 1 June 1990 or until position is filled. An earned Ph.D. in wildlife ecology/management/biology is required and postdoctoral research and teaching experience is desirable. The successful applicant is expected to conduct research with large ungulates and carnivores, and to teach two courses each year. Send curriculum vitae, college transcripts, three to five letters of reference, and statement of research interests to: **Dr. Robert L. Ruff, Chair, Department of Wildlife Ecology, 226 Russell Laboratories, University of Wisconsin, Madison, WI 53706.** Telephone: 608-262-2671. The University of Wisconsin is an Equal Opportunity Employer.

## POSITIONS OPEN

**ASSISTANT PROFESSOR.** Anticipated 1-year appointment beginning September 1990 for biologist to teach two courses in area of specialty (ecology or ethology preferred), team-teach a course in evolution, and offer a course for nonscience majors. Ph.D. and teaching experience desired. Send résumé, transcripts, and three letters of recommendation by 11 May 1990 to: **Dr. Carolyn R. Newton, Department of Biology, Kalamazoo College, Kalamazoo, MI 49007.** Affirmative Action/Equal Opportunity Employer. Kalamazoo College is committed to diversity and particularly encourages women and minorities to apply.

**ASSISTANT PROFESSOR, ZOOLOGY.** Applications are invited for a full-time, tenure-track teaching and research position beginning in August of 1990. Applicants must have a Ph.D. in zoology, postdoctoral experience desirable, and a strong background in animal parasitology. Candidates should be bilingual in English and Spanish. The candidate will participate in the teaching program at the undergraduate and graduate levels and establish an independent research program. Send curriculum vitae, three letters of reference, and copies of recent publications to: **Dr. Carlos A. Delannoy, Chairperson, Department of Biology, University of Puerto Rico, Mayagüez, PR 00709-5000.** Applications must be received by 25 May 1990. The University of Puerto Rico is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.



### ASSISTANT PROFESSOR DEPARTMENT OF CHEMISTRY

A 1-year, temporary, nontenure-track position is available starting in August 1990. The position may be renewable for a maximum of 3 years of service. Applicants should be qualified to teach in the areas of biochemistry and pharmacology. The successful candidate will teach both on campus and in an off-campus master's program and provide graduate advising and supervision of master's theses research. Qualifications: Ph.D. required, postdoctoral experience desirable. Position subject to final budgetary approval. Applicants should submit curriculum vitae, an outline of research interests, a list of publications, and three letters of reference to: **Dr. James E. Girard, Chair, Department of Chemistry, The American University, 4400 Massachusetts Avenue, N.W., Washington, DC 20016.** Application deadline: 18 May 1990. The American University is an Equal Opportunity/Affirmative Action University. Minority and women candidates are encouraged to apply.

### JOHNS HOPKINS CENTER FOR ALTERNATIVES TO ANIMAL TESTING (CAAT)

CAAT is seeking an assistant to the director to participate in the administrative, educational, and research activities of the center. This appointment will be at the **ASSISTANT PROFESSOR** level in the Division of Toxicological Sciences of the Department of Environmental Health Sciences, The Johns Hopkins School of Hygiene and Public Health. The successful candidate will have a Ph.D. or equivalent; teaching and laboratory experience, including cell culture expertise; significant publications demonstrating experience in the areas of molecular biology and/or toxicology; excellent writing and speaking skills; and interests in the area of toxicology policy.

Interested individuals should submit curriculum vitae, a letter describing background and experience appropriate for pursuing a career in toxicology policy and in vitro toxicology, and have three letters of recommendation forwarded directly to:

**Search Committee**  
c/o A. M. Goldberg, Ph.D.  
Johns Hopkins Center  
for Alternatives to Animal Testing  
615 North Wolfe Street  
Baltimore, MD 21205

Application deadline: 30 May 1990.

Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**ASSISTANT PROFESSOR.** The Department of Biochemistry and Biophysics, John A. Burns School of Medicine, University of Hawaii, is seeking to fill a nontenure-track faculty position. Teach undergraduate, graduate, and medical courses; carry out active research program in structure and function of proteins. Experience in site-directed mutagenesis studies is desirable. The applicant is expected to have demonstrated potential or ability to obtain extramural funding and have postdoctoral experience. Annual salary: \$35,376. Send curriculum vitae and names of three references to: **Chair, Department of Biochemistry and Biophysics, University of Hawaii at Manoa, 1660 East West Road, Honolulu, HI 96822.** An Equal Opportunity Employer.

## THE UNIVERSITY OF WESTERN ONTARIO DEPARTMENTS OF CHEMISTRY AND GEOLOGY

The Departments of Chemistry and Geology invite applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level in environmental chemistry. Candidates should have a Ph.D., should show exceptional promise in research, and have a strong commitment to developing a strong research program in any area of environmental chemistry or geochemistry. Candidates with expertise in analytical environmental chemistry, atmospheric chemistry, surface chemistry and geochemistry, biogeochemistry, and other facets of environmental geochemistry are particularly encouraged to apply. Responsibilities may include teaching courses in our new analytical/environmental chemistry programs, supervising graduate students and developing a vigorous, independent research program. The appointment may be in the chemistry department or joint in the chemistry and geology departments.

The Departments of Geology and Chemistry have modern analytical facilities at both the undergraduate and graduate levels, including particular expertise and excellent facilities for stable isotope studies and surface analytical research.

Application materials, including curriculum vitae, publication list, brief statement of research plans and teaching interests, and names and telephone numbers of three referees, should be sent to: **W. S. Fyfe, Dean of Science, Room 100, Natural Sciences Center, University of Western Ontario, London, Ontario N6A 5B7, Canada** by 30 June 1990. For further information, please contact: **G. M. Bancroft, Chairman, Department of Chemistry, or R. W. Hodder, Chairman, Department of Geology.** In accordance with Canadian immigration requirements, this ad is directed to Canadian citizens and permanent residents of Canada. This position is subject to budget approval.

The University of Western Ontario is an Equal Opportunity Employer.

**ASSISTANT/ASSOCIATE PROFESSOR.** Tenure-track position available immediately for a molecular biologist with experience in prokaryotic molecular genetics. Independently funded research programs and experience in teaching, including directing graduate students at the Ph.D. level, is required. Candidate will also participate in ongoing projects in molecular analysis of virulence factors of pathogenic oral bacteria. Salary and title are commensurate with experience. Send curriculum vitae and names of three references to: **Dr. Robert Genco, State University of New York at Buffalo, Department of Oral Biology, 3435 Main Street, 115 Foster Hall, Buffalo, NY 14214.** An Equal Opportunity/Affirmative Action Employer.

Florida International University (FIU), the State University of Florida at Miami. Tenure-track position at **ASSISTANT OR ASSOCIATE PROFESSOR** level for a person with research interests in environmental chemistry. Position is a joint, 12-month appointment between the Department of Chemistry and the Drinking Water Research Center. Available either August 1990 or January 1991. Ph.D. required; postdoctoral experience desirable. Active research program expected. Teaching responsibilities at both graduate and undergraduate levels in candidate's area of expertise. Closing date: 24 May 1990. Send curriculum vitae, transcripts, research plans, and three letters of reference to: **L. Keller, Department of Chemistry, Florida International University, Miami, FL 33199.** FIU is rapidly growing with over 19,000 students. A new chemistry/physics building will open in 1990. FIU is an Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR

The newly established Division of Neuroscience in Psychiatry at the University of Minnesota seeks applicants for two positions at the assistant professor (tenure track) or associate professor (tenure) level. The objectives of the division are to pursue research questions in basic neural mechanisms. Neuroscientists with expertise in electrophysiology, molecular neurobiology, or receptor mechanisms are particularly encouraged to apply. A Ph.D. in a neuroscience-related field or M.D. degree is required. Candidates at the assistant professor level should have postdoctoral or residency training and have demonstrated potential for developing an independent research career and involvement in quality research accepted or published in peer-reviewed journals. Associate professor applicants should have professional distinction in research and writing and demonstrated effectiveness in teaching and advising. Associate professor candidates are also expected to have an extramurally funded research program. The successful applicants will join the rapidly expanding multidisciplinary neuroscience community at the university. Opportunities are numerous for collaborations, intramural funding, and joint appointments in other basic and clinical departments. Applicants should provide curriculum vitae, the names and addresses of three references, and a statement of present and future research goals by 1 June 1990 to: **Dr. Boyd K. Hartman, Director of Neuroscience Research in Psychiatry, Box 392 UMHC, Department of Psychiatry, University of Minnesota Medical School, Minneapolis, MN 55455. Telephone: 612-626-4034.**

The University of Minnesota is an Equal Opportunity Educator and Employer, and specifically invites and encourages applications from women and minorities.

### HANNAH ENDOWED CHAIR MICHIGAN STATE UNIVERSITY

Michigan State University is seeking an experienced scientist who will conduct innovative research relating to the competitiveness, diversity, or function of microorganisms in natural or managed habitats. Relevant research areas would include, but are not limited to, plant-microbial interactions, microbial population genetics, genetic exchange mechanisms, molecular phylogeny, microbial biotransformation, and engineering of microbial systems. It is expected that the successful candidate will become an active member of the National Science Foundation Science and Technology Center for Microbial Ecology recently instituted on campus.

A distinguished record of academic achievement is required. The appointment will be made at the **PROFESSOR** level with a salary commensurate with experience. An attractive equipment and start-up package will be available and funds from the endowment will provide a substantial level of continuing research support.

Applications will be accepted up to 31 July 1990 or until an appropriate candidate is identified. Interested parties should send curriculum vitae to: **M. F. Thomashow, Chair, Hannah Search Committee, Department of Crop and Soil Sciences, Michigan State University, East Lansing, MI 48824.** Michigan State University is an Equal Opportunity/Affirmative Action Employer.

As a leader in the field of cell transplantation research, we currently have three openings:

**CELL BIOLOGIST:** Requires a Ph.D. scientist with experience in isolating progenitor mammalian cell types and studying their differentiation. Experience with hepatic or islet cells is highly desirable.

**BIOMATERIAL SCIENTIST:** Requires a Ph.D. with postdoctoral experience in biomedical engineering, cell biology, physiology, and/or artificial organs to work in the field of encapsulated cell transplantation.

**MOLECULAR BIOLOGIST:** Requires a Ph.D. scientist with experience in current recombinant DNA techniques used to over express proteins in mammalian cells utilizing gene targeting/homologous DNA recombination techniques. Postdoctoral experience desirable.

Please submit curriculum vitae to: **Department #952, Administration Department, Hana Biologics, Inc., 850 Marina Village Parkway, Alameda, CA 94501.** Equal Opportunity Employer.

## POSITIONS OPEN

**ASSISTANT PROFESSOR, HAZARDOUS MATERIALS MANAGEMENT.** Applications are invited for a tenure-track position in the Department of Environmental Health Sciences at the University of South Carolina. The applicant should have a doctoral degree and research strength in the assessment and/or remediation of environmental contamination. Teaching experience and familiarity with technology and regulations related to the handling and disposal of hazardous chemicals is desirable. Submit résumé, a statement of teaching and research interests, and the names and addresses of three references no later than 1 June 1990 to: **Dr. E. R. Blood, Chair of Search Committee, Department of Environmental Health Sciences, University of South Carolina, Columbia, SC 29208.** The university is an Affirmative Action/Equal Opportunity Employer.

### ASSISTANT/ASSOCIATE PROFESSOR INSTITUTE FOR MOLECULAR GENETICS BAYLOR COLLEGE OF MEDICINE

The Institute for Molecular Genetics has two faculty positions open at the Assistant or Associate Professor level. A **YEAST GENETICIST** is sought with strong interest in using molecular genetic approaches to study current problems in genetics and cell biology, e.g., cell cycle regulation, chromosome segregation, meiosis, gene regulation, etc. A **DEVELOPMENTAL GENETICIST** is sought with strong interest in molecular genetics of development, using mouse, *Drosophila*, *C. elegans*, *Xenopus*, or other organisms. Excellent start-up funding and new laboratory space are available. Please send curriculum vitae, brief description of current and future research plans, and three letters of recommendation to: **Search Committee, Institute for Molecular Genetics, Baylor College of Medicine, Houston, TX 77030.**

### EMINENT SCHOLAR IN PROTEIN ENGINEERING THE OHIO STATE UNIVERSITY

The Department of Biochemistry at the Ohio State University invites applications and nominations of distinguished individuals for an Ohio eminent scholar faculty position at the rank of **FULL PROFESSOR**. The eminent scholar position is an endowed chair created by the governor and the board of regents of the state of Ohio. We seek an individual who has an outstanding record and an imaginative and highly productive research program utilizing protein engineering to investigate significant problems in protein structure-function relationships. Representative areas of interest would include protein folding, protein structure and stability, DNA-protein interactions, macromolecular assembly, hormone-receptor interactions, and signal transduction. The successful candidate will command a highly competitive salary, a generous set-up package, and a recurring annual budget for support of research. The eminent scholar is expected to direct a vigorous research program in protein engineering and to participate in some teaching in this area. The eminent scholar will also play a leadership role in determining future directions of biochemistry at Ohio State. Individuals may be nominated or may themselves apply for this position. Please submit a résumé and a concise statement of research interests to: **Dr. George Marzluf, Eminent Scholar Search Committee, Department of Biochemistry, Ohio State University, 484 West 12th Avenue, Columbus, OH 43210.** The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

### SCIENCE DIRECTOR

The American Type Culture Collection (ATCC) is seeking an associate director for science to promote and coordinate efforts for departments of Applied Sciences and Workshops, Bacteriology, Bioinformatics, Cell Culture, Molecular and Plasmid Biology, Mycology and Botany, and Protistology and Virology. A key leadership job for enhancement of the research potential of ATCC while keeping in balance traditional service role of institution.

Applicants must have a Ph.D. or equivalent in relevant discipline, an outstanding record of grant or contract support, and demonstrated program management experience plus research and scholarly achievement. Successful candidate must work effectively in a multidisciplinary environment. Submit résumé, salary expectations, and three references to: **Personnel Office, ATCC, 12301 Parklawn Drive, Rockville, MD 20852.** Equal Opportunity Employer.

## SCIENTIFIC COMPUTING SPECIALISTS

Merck Sharp & Dohme Research Laboratories is currently offering excellent career opportunities for enterprising individuals with a blend of scientific and computer expertise who will contribute to our dynamic scientific research environment. The successful candidates for these positions will use their strong technical and interpersonal skills, as well as excellent verbal and written communications skills to interact with the scientific and corporate computing staffs.

One opportunity exists for an individual to assume a leadership role in the development and implementation of the strategic plan for computer and information resources. This strategist role will require a thorough knowledge of the Laboratories and an excellent rapport with the scientific and computing staff and management. To qualify for this position, the applicant must have a Ph. D. or equivalent in a biological or physical science. Strong scientific laboratory experience combined with extensive computer applications in a scientific environment are essential. This opening in particular requires excellent organizational and written communications skills.

Opportunities also exist for individuals with B.S. or more advanced degrees in biological, physical, and/or computer-related disciplines as well as demonstrated expertise in networking (especially Ethernet), relational database technology (especially ORACLE), full-text retrieval software (especially BASIS), and/or computer security. Outstanding technical and verbal communications skills are vital for these positions.

Merck & Co., Inc. is noted for its professional environment, excellent salaries, and outstanding benefits program. To explore these opportunities, please forward credentials with salary history in confidence to: Susan Glinka, R80M-TL1, Merck & Co., Inc., P.O. Box 2000, Rahway, NJ 07065.



**Merck & Co., Inc.**

## EDITOR

### Life Sciences/Biomedicine

Wiley-Liss, Inc., an STM publishing division of John Wiley & Sons, established through the recent acquisition and merger of Alan R. Liss, Inc., is expanding its editorial staff responsible for book and journal acquisitions/development in the life and biomedical sciences.

We are looking for a creative, team-oriented professional capable of bringing current knowledge of both scientific research trends and information needs to bear on innovative publishing projects in modern biology (cell and developmental biology, molecular biochemistry, genetics, neurosciences) and emerging areas of biomedicine.

Qualified candidates must have the ability to develop concepts for and commission advanced level periodicals and books, evaluate submissions and proposals, serve as liaison with scientific authors/editors, and assist in managing an ongoing publishing program in the Biological Sciences. The ideal individual will combine insights gained through relevant graduate studies and teaching with prior scientific publishing experience in an editorial, marketing or production environment; other applicants with demonstrated acquisitions skills are strongly encouraged. Excellent written and oral communications skills essential. Frequent travel will be required.

This NEW YORK based position offers an opportunity to build a career within a major division of John Wiley & Sons, a US based global publisher of scientific and technical information. Competitive compensation and comprehensive benefits package. Send resume with salary history to: Brenda Greer, Human Resources.



**WILEY**

John Wiley & Sons, Inc.  
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New York, NY 10158-0012

Equal Opportunity Employer M/F

## SCIENTIST

### Surgical Pharmacology

### Our Emphasis On New Technology Can Put You At The Forefront.

As the world's foremost manufacturer of sutures and wound closure devices, Ethicon, Inc., a Johnson & Johnson Company, offers a stimulating environment for scientists and other technically oriented professionals. We currently seek an individual with strong experimental design and analysis skills to join the R&D team at our Somerville headquarters.

Your responsibilities will revolve around designing, conducting, analyzing and reporting animal efficacy studies. Coordinating with outside investigators, evaluating potential projects, creating models, and making presentations will also be involved.

Qualified candidates will possess a Ph.D. or M.S. degree with a minimum of 4 years' related experience in physi-

ology, pathology, immunology or pharmacology. Expertise in scientific writing and in vivo techniques, as well as strong interpersonal and communication skills, are essential. Background in wound healing, inflammation or hemostasis would be a definite advantage.

As a member of the Johnson & Johnson Family of Companies, we offer an environment well suited to your professional advancement, a competitive salary, and outstanding benefits which include our LIVE FOR LIFE wellness program. For immediate consideration, please send your resume with salary requirement in confidence to: Employment Manager, Dept. S, Ethicon, Inc., Box 151, Somerville, NJ 08876-0151. An Equal Opportunity/Affirmative Action Employer M/F/H/V.

**ETHICON**  
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## POSITIONS OPEN

### THE UNIVERSITY OF ADELAIDE SOUTH AUSTRALIA

Invites applications from both women and men for the following position:

#### PROFESSOR OF BOTANY (TENURABLE)

Reference: 1664 in the Department of Botany. The research strengths of the Department of Botany are concentrated in three broad areas: terrestrial and aquatic ecosystems in semi-arid lands, evolutionary plant systematics and palaeobotany, and cell biology.

The university seeks a professor with an international reputation for research in one of the three areas listed above, and a commitment to fostering the department's unique character as a center for environmentally oriented field biology within the context of the arid and Mediterranean ecosystems of southern Australia, both terrestrial and aquatic.

The appointee will be responsible for providing strong leadership for the discipline of botany, while actively exploring opportunities for cooperation with other departments and institutions, particularly in the area of environmental science.

The department shares with the zoology department the organization and teaching of both medical and science-oriented first-year biology subjects. Botany is taught at first, second, and third year, with an honors course and an active postgraduate M.Sc. and Ph.D. program. The department also has input into the master of environmental studies course. Applicants should have established teaching skills and the ability to motivate students and promote new teaching initiatives.

The university has a system of departmental government by elected chairmen and a departmental committee. The appointee would hold office as chairman of the department for an initial period of 3 years.

The position is available from 1 July 1990.

Further information may be obtained from: **Dr. R. Sinclair, Departmental Chairman, telephone: 08-228-5280. FAX: 08-232-3297.**

*It is university policy to encourage women to apply for tenurable academic appointments. Holders of full-time tenured or tenurable academic appointments have the opportunity to take leave without pay on a half-time basis for a specific period of up to 10 years when this is necessary for the care of children.*

Information about the general conditions of appointment and selection criteria may be obtained from the senior assistant registrar (personnel) at the university.

Salary per annum: A\$65,837.

Applications, in duplicate, quoting **Reference Number 1664** and giving full personal particulars (including whether candidates hold Australian permanent residency status), details of academic qualifications, and names and addresses of three referees should reach: **Senior Assistant Registrar (Personnel), University of Adelaide, G.P.O. Box 498, Adelaide, South Australia 5001, Telex: UNIVAD AA 89141, FAX: 08-224-0464**, not later than 1 June 1990.

The university reserves the right to make inquiries of any person regarding any candidate's suitability for appointment, not to make an appointment, or to appoint by invitation.

*The University of Adelaide is an Equal Opportunity Employer.*

#### CELL BIOLOGY POSITION

The Department of Anatomy and Cellular Biology of Tufts University Schools of Medicine, Dental Medicine and Veterinary Medicine, invites applications for a tenure-track position. This position will also involve membership in the cell, molecular, and developmental biology program of the Sackler School of Graduate Biomedical Sciences which is administered from this department. Applicants should possess a Ph.D. or M.D. degree, or equivalent, and should be at the **ASSOCIATE OR FULL PROFESSOR** level. Applicants must have an active, independent research program with a strong history of extramural funding. Preference will be given to candidates whose research emphasizes molecular and cellular aspects of developmental or reproductive biology. Salary and rank will depend on qualifications and experience. Applicants should submit curriculum vitae, names of at least four references, and a letter describing research interests, accomplishments, and teaching experience to: **Dr. Bryan Toole, Department of Anatomy and Cellular Biology, Tufts University Health Science Schools, 136 Harrison Avenue, Boston, MA 02111.**

*Tufts University is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.*

## POSITIONS OPEN

**CHAIRPERSON, BIOCHEMISTRY.** Start 1 September 1990. Teaching with interest in research and nutrition. Ph.D. required. Full-time, tenure-track, 12-month contract. Salary negotiable. Fringe benefits, paid vacation, moving allowance. Send résumé and three letters of recommendation to: **Dr. R. L. Swenson, Chairman, Search Committee, The National College of Chiropractic, 200 East Roosevelt Road, Lombard, IL 60148.**

#### DEAN

#### COLLEGE OF VETERINARY MEDICINE THE UNIVERSITY OF TENNESSEE

Applications and nominations are invited for the position of dean of the College of Veterinary Medicine (CVM) at the University of Tennessee. The dean is the chief administrative and academic officer of the College of Veterinary Medicine and is responsible to the vice president of the Institute of Agriculture. The College of Veterinary Medicine is a separate budget entity and is one of four units in the Institute of Agriculture. Degree-granting programs are administered through the University of Tennessee, Knoxville. The college has 90 faculty members, 60 professional students per class, and a graduate program leading to M.S. and Ph.D. degrees. An earned doctorate of veterinary medicine or equivalent degree is required and specialty Board certification, graduate degrees, and administrative experience with major responsibility in a university veterinary program are preferred. An understanding of state-supported educational institutions, state and federal legislative processes and programs, research funding sources, and familiarity with land grant universities is essential. The applicant should possess the personality and communication skills to deal effectively with funding agencies, livestock and companion animal interest groups, veterinary professional organizations, and other campus units. This individual must have the ability to deal positively with members of the college and be able to provide a motivating working environment within the college. The successful candidate should have the vision to deal with changing social and educational issues affecting the veterinary profession, develop innovative college-wide programs, and must have a firm commitment to Affirmative Action/Equal Opportunity.

Applications, including a letter of intent, curriculum vitae, and three references, will be accepted until 1 August 1990 or until an acceptable candidate is identified. Nominations and applications should be sent to: **Dr. Thomas H. Klindt, Chair, CVM Dean Search Committee, 103 Morgan Hall, The University of Tennessee, P.O. Box 1071, Knoxville, TN 37901-1071. The University of Tennessee is an Equal Opportunity/Affirmative Action Employer.**

#### SCRIPPS INSTITUTION OF OCEANOGRAPHY (SIO) FACULTY POSITION IN COASTAL STUDIES

SIO is seeking an outstanding scientist or engineer to fill a tenured or tenure-track professorial position, the rank and salary commensurate with qualifications and experience in accord with University of California pay scale. Fields of interest include, but are not limited to, sediment transport and physical oceanography in shallow nearshore and coastal waters. At the time of appointment, the candidate must hold a Ph.D. degree in physical oceanography, coastal engineering, marine geology, or a related science. The position will involve graduate teaching, supervising graduate student research, and conducting a vigorous research program supported by extramural funds. Candidates at the associate or full professorial level must show evidence of a strong research record; assistant level candidates will be evaluated on their potential from their publication record and letters of recommendation, as appropriate to their level of experience. Applications are encouraged both from junior scientists and from scientists with an interest in conducting observational work.

Send a detailed résumé (including teaching experience), copies of selected recent publications, and names of five references to:

**Chairman, Coastal Studies Search Committee  
SIO Graduate Department, A-008  
Scripps Institution of Oceanography  
University of California, San Diego  
La Jolla, CA 92093**

Applications must be received by 1 August 1990 to be considered for consideration.

*An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### SIMON FRASER UNIVERSITY SCHOOL OF KINESIOLOGY

The School of Kinesiology of Simon Fraser University invites applications for the position of **DIRECTOR**, who is responsible for the academic and administrative management of this department. The directorship will begin on 1 September 1990 for a 5-year term, renewable, at the end of the term of the present incumbent. Provision has been made for the new director, if appointed from outside the university, to take up his or her professional position prior to this date.

Kinesiology at Simon Fraser University is an interdisciplinary program of study concerned with mammalian structure and function. Research areas include biochemistry (carcinogenesis, free radicals, membrane transport, metabolism), biomechanics, kinanthropometry, motor behaviour, and physiology (cardiac, environmental, exercise, muscle, neural).

A critical part of the new director's role will be to lead a new phase of development of the school.

*This advertisement is directed to people who are eligible for employment in Canada at the time of application. Others are encouraged to apply but they are not eligible for appointment until a Canadian search is completed and no appointment made. All appointments are subject to budgetary authorization.*

Simon Fraser University is situated on top of Burnaby Mountain and serves about 16,000 students. Lying just east of Vancouver, the site commands magnificent views of the Burrard Inlet, the North Shore Mountains, the Fraser River, and Vancouver harbor. This lower mainland area of British Columbia is unique in Canada for its mild climate and varied recreational facilities.

Please address all applications and queries to:

**Office of the Dean  
Faculty of Applied Sciences  
Simon Fraser University  
Burnaby, B.C., Canada V5A 1S6**

*Simon Fraser University offers Equal Employment Opportunities to qualified applicants.*

**PROGRAM DIRECTOR, PLANT-MICROBE INTERACTIONS.** Duties include: to direct program that uses genetic engineering to develop improved strains of rhizobia and assesses the efficacy of the strains as agricultural inoculants under field conditions. To direct and carry out research on the genetic manipulation of nitrogen-fixation genes and transport genes to construct strains of *Rhizobium* with improved nitrogen-fixing ability. To supervise the preparation of regulatory applications to appropriate federal agencies to gain approval for field-testing of the genetically engineered rhizobia. To oversee the design of the field tests and microbiological monitoring programs to evaluate the field performance of the strains and meet regulatory requirements. To coordinate preparation of reports mandated by the regulatory agencies. Special requirements include: a doctorate in biological sciences and at least 3 years of relevant research experience in the genetics and physiology of *Rhizobium* species. Specific experience in the following areas is required: experience in the genetic manipulation of rhizobial species (particularly *Rhizobium meliloti* and *Bradyrhizobium japonicum*) to produce strains with improved nitrogen-fixing ability; the manipulation of regulatory genes required for the expression of nitrogen-fixation genes; the isolation and manipulation of rhizobial genes required for the transport of organic acids; the preparation of regulatory submissions to EPA under TSCA; design of field tests and microbiological monitoring programs. In addition, a broad knowledge of all aspects of the *Rhizobium*-legume symbiosis is required. Must also possess a working knowledge of formulation options for microbial inoculants. Position located in Cambridge, Massachusetts. Salary: \$85,000 per annum; 40 hours per week. Send two copies of résumé to: **Job Order #00496, Commonwealth of Massachusetts, Department of Employment and Training, Special Programs, First Floor, 19 Staniford Street, Boston, MA 02114. Equal Opportunity/Affirmative Action Employer.**

**SCIENCE EXHIBIT DEVELOPER.** A position is available for someone to research topics in science, technology, and medicine and develop them into exhibits understandable and relevant to the general public.

Requirements: baccalaureate or higher degree in a science field. Send application letter, curriculum vitae, and three letters of recommendation to: **Director of Human Resources, Museum of Science and Industry, 57th Street and Lake Shore Drive, Chicago, IL 60637-2093. Affirmative Action/Equal Opportunity Employer.**



## CHIEF, NEUROBIOLOGY AND ANESTHESIOLOGY BRANCH

The National Institute of Dental Research (NIDR) invites nominations and applications for the position of Chief, Neurobiology and Anesthesiology Branch (NAB). This is a Civil Service position in the Senior Executive Service with a salary range of \$71,200 to \$79,200 per annum. The person selected may be eligible for Physician's Comparability Allowance up to \$20,000 per year. A one-year probationary period must be served by the individual selected if not currently in the Senior Executive Service.

The Chief, NAB, is responsible for the scientific and administrative management of a multidisciplinary research program spanning the basic and clinical sciences in oral-facial sensation, with emphasis on pain mechanisms and the development of new methods of pain control.

Applicants must meet the minimum educational requirements (or possess equivalent combination of experience and training) for Dental Officer, GS-680, as defined by U.S. Office of Personnel Management Handbook X-118, Qualification Standards for Positions under the General Schedule, which is available in Federal Personnel Offices and Federal Job Information Centers. Further information about the position and qualification requirements may be obtained by contacting Ms. Judith T. Dulovich, (301) 496-6971. An Application for Federal Employment (SF-171), accompanied by a current curriculum vitae and bibliography, should be submitted to:

**Ms. Judith Dulovich**  
**National Institutes of Health**  
**Building 31, Room 2C23**  
**9000 Rockville Pike**  
**Bethesda, Maryland 20892**



**Applications must be postmarked  
no later than May 31, 1990**

Selection for this position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, religion, sex, national origin, politics, marital status, physical or mental handicap, age, or membership or non-membership in an employee organization.

NIH is an Equal Opportunity Employer

## OPPORTUNITIES IN CELL THERAPY

CELLULAR TRANSPLANTS, Inc., a new and rapidly-growing biotherapeutic company located in Providence, Rhode Island, is developing cell therapy, utilizing immunoisolation and immuno-alteration techniques, for treatment of human disease. Rare opportunities to participate in the genesis and development of core technologies for human health care exist for ideal candidates with the following academic and research credentials:

### Neural and Islet Cell Biology

PhD in cell biology or a related field, experience in the isolation and culturing of various primary or transformed cells, and expertise in emerging developments for the therapeutic use of neural tissue, islets, and other cell types for human transplantation.

### Biomaterials

PhD in biomaterials or related life science field. Requires ability to describe, correlate, and predict long-term host-implant phenomena. Industrial experience and regulatory exposure helpful.

### Biomedical Engineering

PhD in chemical, mechanical or biomedical engineering. Significant experience in biology, physiology, and artificial organs.

### Transplantation Immunology

PhD in immunology or related field and experience in the understanding and manipulation of immunological reactions to transplanted allogeneic and xenogeneic tissue, implants, and foreign bodies.

### Membranes/Microencapsulation

PhD or equivalent experience in the preparation of commercial membranes (ideally hollow fibers), microcapsules, and/or controlled release devices. Hands-on knowledge of fabrication equipment and techniques essential.

### Pre-Clinical Animal Studies

PhD or equivalent experience in the design and implementation of animal studies for the evaluation of host reactions to implants and xenografts and/or animal models for Diabetes and Parkinson's.

CELLULAR TRANSPLANTS, Inc., offers a stimulating and attractive research environment and the opportunity for collaboration with leading scientists working in related fields. Our New England location and proximity to leading educational institutions provide diverse cultural and recreational challenges. For immediate consideration, please Fax (401) 272-3485 or send your CV and publication list to: Michael J. Lysaght, PhD, CELLULAR TRANSPLANTS, Inc., Four Richmond Square, Providence, RI 02906. No Telephone Calls, Please. CELLULAR TRANSPLANTS is an affirmative action employer.



*Cellular Transplants*

## POSITIONS OPEN

Seattle: The University of Washington, Department of Psychiatry and Behavioral Sciences, seeks **DIRECTOR OF RESEARCH and CHIEF OF HUMAN RESOURCES DEVELOPMENT AND TRAINING** (two positions) for the newly formed Washington State Mental Illness Research and Education Institute. Also sought: molecular geneticist, statistician, MH epidemiologist and clinical psychopharmacologist, and research/clinical psychiatrists. Please send letter of interest and curriculum vitae to: **Leonard Heston, M.D., Professor and Director, Washington State Institute, Western State Hospital, Fort Steilacoom, WA 98494.**

### ASSOCIATE SCIENCE DIRECTOR BAT CONSERVATION INTERNATIONAL

Qualifications: Advanced degree in biology with emphasis on chiropteran ecology and/or behavior. Track record of successful grantsmanship and publication. Strong program development and management skills. Demonstrated ability to coordinate field research projects. Excellent interpersonal skills and a strong commitment to conservation required. Send résumé to: **Bat Conservation International, P.O. Box 162603, Austin, TX 78716.**

### ENVIRONMENTAL ADVISERS

The U.S. Agency for International Development (AID) is seeking two individuals to serve as regional environmental advisers for Central America and the Caribbean on 2-year Personal Services Contracts. These positions will be based in San Jose, Costa Rica, and Bridgetown, Barbados, respectively, and involve substantial travel to AID-assisted countries in the two regions. Main responsibilities include advising local AID offices and host governments on environmental impact assessments and natural resource management issues related to development activities. Minimum qualifications include: (i) an advanced degree in an environmental discipline, e.g., ecology, biology, environmental planning; (ii) 3 years of relevant experience working in developing countries in areas such as environmental impact assessment, environmental planning, natural resource economics, marine resources management, etc.; (iii) fluency in Spanish is required for the Central American post, and fluency in Spanish or French (preferably both) is required for the Caribbean position; and (iv) *U.S. citizenship*. Send cover letter and résumé or SF-171 by 30 May 1990 to: **James S. Hester, Chief, Environment, Energy, and Science Staff, Room 2242 NS, Agency for International Development, Washington, DC 20523-0010.** AID is an Equal Opportunity Employer.

**BIOLOGY FACULTY.** The Oceanographic Center of Nova University and Nova College seek a Ph.D. level biologist with a specialty in some area of biochemistry, physiology, or physiological ecology of marine fishes. The position requires significant undergraduate teaching in an ocean studies program, some graduate teaching in ichthyology or fisheries science, and research. Position must be filled by August 1990. Send letter of interest, curriculum vitae, and three letters of reference concerning both teaching and research by 15 May 1990 to: **Nova University, Personnel Department (CBB), College Avenue, Fort Lauderdale, FL 33314.** Minorities are encouraged to apply. Affirmative Action/Equal Opportunity Employer.

### FACULTY POSITIONS DIVISION OF BASIC SCIENCES FRED HUTCHINSON CANCER RESEARCH CENTER (FHCR)

The Division of Basic Sciences at the FHCR has faculty positions available (any rank). The division is a broadly based, highly interactive group of 29 faculty members conducting research in cellular and molecular biology. Candidates will be selected primarily on the quality of their research, as opposed to specific topics, but the group is seeking to build strength in some specific areas including: growth regulation, mammalian development, immunobiology, tumor biology, protein biochemistry, and prokaryotic molecular genetics. Candidates should send curriculum vitae, a concise statement of their research plans, and three letters of reference to: **New Staff Committee, Fred Hutchinson Cancer Research Center, Division of Basic Sciences, 1124 Columbia Street, Seattle, WA 98104** on or before 1 July 1990.

FHCR is a smoke-free environment and an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**CELL AND MOLECULAR BIOLOGIST.** Position in lung cell and molecular biological research at the **ASSISTANT PROFESSOR** level in an appropriate academic series. Qualified candidates should have Ph.D. degree preferably in biophysics and have completed postdoctoral training. The person selected should have demonstrated ability to maintain a well-funded research program in human airway epithelial cell and molecular biology with a specific emphasis on cystic fibrosis. Preference will be given to applicants whose research interests and experience include human airway epithelial cell differentiation and transformation, modulation of gene expression, DNA repair and replication in human genetic disorders, and in vitro models of neoplastic progression. Duties will include teaching in epithelial cell and cancer biology to graduate students.

**IMMUNOLOGIST.** Position in immunology at the **ASSOCIATE OR FULL PROFESSOR** level in an appropriate academic series. Qualified applicants should have Ph.D. degree. The person selected will be expected to develop a program for evaluating the involvement of naturally occurring antibodies and carbohydrate antigens in autoimmune and aging processes in man. Areas of particular interest should include: analysis of carbohydrate specificity of antibodies; identification of carbohydrate structures in mammalian glycoconjugates; analysis of biological effects of anti-carbohydrate antibodies on mammalian cells; evaluation of glycosyltransferase activity and expression of glycosyltransferase genes in mammalian cells.

Salary for these positions will be supported by candidate's research funds, so successful applicants must have adequate sources of extramural funding and have demonstrated an ability to obtain outside funding.

Interested individuals should write to: **George F. Brooks, M.D., Search Committee Chairman, Department of Laboratory Medicine, University of California, San Francisco (UCSF), CA 94143-0134.** UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply. Deadline for receipt of applications is 8 June 1990.

**FACULTY POSITION.** University of Southern California (USC), School of Medicine, Division of Diabetes and Nutrition. Candidates must be licensable to practice medicine in the state of California. Teaching of medical students and residents in expected. Basic research capabilities including molecular and cellular biology in area of diabetes and/or hypertension is desired. Tenure-track position with rank and compensation commensurate with qualifications and experience. Applications accompanied by a current curriculum vitae and the names of three references should be sent to: **Willa A. Hsueh, M.D., Chief Division of Diabetes and Nutrition, LAC-USC Medical Center, 1200 North State Street, Room 8250, Los Angeles, CA 90033.**

### CENTRAL OREGON COMMUNITY COLLEGE INSTRUCTOR OF BIOLOGICAL SCIENCE ANTICIPATED FACULTY VACANCY

Successful candidate will teach courses in general biology, principles of biology, and general botany. Qualifications: Ph.D. or recent A.B.D. in biology with botany emphasis or Ph.D. or recent A.B.D. in botany. Salary: \$23,690 to \$31,000 (9-month, probationary, academic year appointment). Application deadline: 25 May 1990. For required application or more information, contact: **The Personnel Office, Central Oregon Community College, 2600 N.W. College Way, Bend, OR 97701.** Telephone: 503-385-5513. Equal Opportunity/Affirmative Action Employer.

**HEMATOPATHOLOGIST.** A.P./C.P. hematopathology certified to pursue research in hematologic malignancies, teach medical and graduate students and residents, and share responsibilities in laboratory management. Full-time, tenure-track faculty position as **ASSOCIATE DIRECTOR, Hematology Division, Department of Pathology.** Requirements: at least 2 years of hematology fellowship and/or experience in morphology, cytochemistry, and immunophenotyping of leukemias and lymphomas. Annual salary is \$68,000 or commensurate with rank and experience. Send curriculum vitae with three references to: **Robert Harrison, M.D., Department of Pathology, The University of Texas Medical Branch (UTMB), Galveston, TX 77550.** UTMB is an Equal Opportunity M/F/V/H Affirmative Action Employer. UTMB hires only individuals authorized to work in the United States.



THE INTERNATIONAL ATOMIC ENERGY AGENCY  
seeks

### Head of Agrochemicals and Residues Section

for the Joint FAO/IAEA Division of  
Nuclear Techniques  
in Food and Agriculture,  
Vienna, Austria

Applicants should hold a Ph.D. degree in chemistry with specialization in agricultural or environmental chemistry. 15 years of research experience including work with isotopes and radiation in research on pesticides or other agrochemicals and with a good overall knowledge of agrochemical use in agriculture. Relevant experience in developing countries would be an asset. Experience with international programmes and administration desirable.

The Head of the Agrochemicals and Residues Section assists in formulating and guiding the joint FAO/IAEA programme to assist Member States to apply nuclear and related techniques in research relevant to safe and effective use of pesticides and other agrochemicals, as well as in the utilization of agricultural wastes.

Tax free emoluments of approx. US\$ 66,700 p.a. Initial contract for three years. Additional allowances for dependents. Six weeks annual leave. Travel and removal expenses paid. Applicants should send their curriculum vitae quoting Vacancy Notice No. 90/008 to the Division of Personnel, International Atomic Energy Agency, P.O. Box 100, Wagramerstrasse 5, A-1400 Vienna, Austria, before 18 May 1990.

### FACULTY POSITIONS UNIVERSITY OF GEORGIA DEPARTMENT OF MICROBIOLOGY

The Department of Microbiology, at the University of Georgia, invites applications for three tenure track faculty positions in the areas of microbial physiology, cellular/molecular aspects of microbial pathogenesis, or immunology. Two positions will be filled at the rank of Assistant Professor, with the third at a senior rank appropriate to experience. Qualifications for the Assistant Professor positions include a doctoral degree and a minimum of two years of postdoctoral experience, a strong record of research productivity, and a commitment to excellence in classroom instruction. A candidate for the senior level position should be an established scientist who has demonstrated intellectual creativity, a commitment to excellence in teaching and a strong record of research productivity and support. Women and minorities are encouraged to apply for all positions, and nominations for the senior position are welcomed. Responsibilities will include the development/maintenance of an independent, externally funded program of research and graduate training, as well as teaching in undergraduate and graduate level courses within the Department. Applicants for all positions should submit a statement of research and teaching interests and a curriculum vitae. Applicants for the Assistant Professor position should arrange to have three letters of reference sent prior to the closing deadline. Applicants for the senior position should submit a list of five potential references. **All applications must be received by October 1, 1990.** The target date for filling these positions is September 1, 1991. Salary will be commensurate with qualifications and experience. Submit applications to: Search Committee, Department of Microbiology, The University of Georgia, Athens, GA 30602. **The University of Georgia is an Equal Opportunity/Affirmative Action Institution.**

# Immunologist/ Associate Research Scientist

The Surgical Immunology Research Laboratory at the West Haven, Connecticut V.A. Medical Center is looking for a Ph.D. Director to oversee 1-3 surgical resident trainees and participate in studies of lymphocyte signal transduction, neuroenteric mediators of immune function and the effect of immunosuppressives on second messengers and activation events.

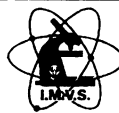
A permanent salary line from Bridgeport Hospital funds this geographic full-time position at West Haven, 5 minutes by shuttle bus to the Yale main campus.

Bridgeport Hospital, Yale University and the West Haven V.A. Medical Center are all equal opportunity employers and applications from women and minorities are encouraged.

Send C.V. to: Marvin A. McMillen, M.D., Director, Surgical Intensive Care Unit, West Haven V.A. Medical Center, West Spring Street, West Haven, CT 06516.



A century ago, we made a commitment.  
We've kept it.  
An equal opportunity employer.



# I.M.V.S.

Institute of Medical & Veterinary Science Adelaide, S.A.

## DIVISION OF MEDICAL VIROLOGY

### Post-Doctoral Scientists in Virology

The Division of Medical Virology includes four research groups studying basic virus pathogenesis, and in addition provides a modern virus diagnostic and reference service to the state of South Australia. Post-doctoral positions are available in each of the following areas:

- **Hepatitis Research Laboratory** - replication and pathogenetic mechanisms of hepadnaviruses and hepatitis delta virus.

**Enquiries to:** Dr Eric Gowans, telephone (08) 228 7573

- **Herpes Virus Laboratory** - molecular nature of herpes simplex latency.

**Enquiries to:** Dr Tony Simmons, Telephone (08) 228 7540

- **Human Immunodeficiency Virus (AIDS) Laboratory** - replication cycle and strategy of HIV.

**Enquiries to:** Dr Li Peng, telephone (08) 228 7574.

Experience in molecular biology is required while experience in molecular virology and/or classical virology are highly desirable.

Positions are available for three years in the first instance with the possibility in some cases of further appointment or tenure. Salaries and conditions will be in accordance with NH&MRC guidelines.

**General enquiries to Professor C J Burrell, Head of Division, telephone (08) 228 5434.**

**Written applications together with curriculum vitae and the name and addresses of three referees should be forwarded to: The Manager, Personnel Services IMVS, PO Box 14 Rundle Mall, Adelaide SA 5000.**

**Closing date for applications is Friday 29 June 1990.**

*The Institute is an equal opportunity employer.*

CH4040



## University of Pittsburgh

### DIRECTOR OF ENVIRONMENTAL HEALTH AND SAFETY

The University of Pittsburgh seeks applications for the newly created position of Director of Environmental Health and Safety, who will report directly to the Associate Vice President for Facilities Management, the University's chief facilities officer.

The individual selected will recommend appropriate professionals to staff the Health and Safety Department, develop and administer campus policy and procedures concerning all areas of environmental health and safety, and provide consultation and instruction to department heads, faculty, staff, and students in relation to the safe conduct of their respective programs and activities.

Candidates must have: five years of professional experience, preferably with three years administrative experience in higher education; knowledge of relevant regulations; and a master's degree in engineering, chemistry, environmental health, or other field relating to health and safety. Competitive salary and fringe benefit package offered.

Please send applications before May 25, 1990, to:

**Mr. L. Thomas Hussey • Associate Vice President  
Facilities Management • B-80 Benedum Hall  
University of Pittsburgh • Pittsburgh, PA 15261**

*An equal opportunity, affirmative action employer*

## BRANCH DIRECTOR

Washington State Mental Illness Research and Education Institute

**Description of Position:** The Washington State Mental Illness Research and Education Institute is seeking a Director to lead its Eastern Washington Branch. The Branch Director will serve as the Associate Director of the Institute and direct its eastern Washington program. The Institute is charged by the Washington legislature to conduct research and educational programs through the state's research universities and mental health facilities.

The Branch Director will conduct his/her own research program and stimulate research at participating institutions. He/she will also coordinate Institute training activities at Eastern State Hospital and in community-based settings. The primary focus includes (1) Identify biomedical and psychosocial research needs, develop a research agenda, and implement a research program. (2) Identify the staff development/training needs at Eastern State Hospital and in community mental health organizations; inventory ongoing training activities and evaluate their effectiveness; identify provider institutions; and implement a training agenda in conjunction with those providers.

#### Qualifications:

- Doctorate or equivalent in an academic discipline relevant to mental health
- Demonstrated research and teaching competence sufficient to qualify for a tenured faculty position at Washington State University
- Demonstrated ability to obtain grant support
- Academic leadership ability
- Knowledge of state mental health systems
- Experience with public psychiatric hospital and community mental health systems is highly desirable

**Appointment and Salary:** This is a faculty appointment at Washington State University. Departmental affiliation will depend upon the candidate's academic preparation. Salary will be competitive with equivalent academic positions.

To apply send a vitae, cover letter summarizing your interest in and qualifications for the position together with your thoughts about the role of mental illness research and training in the process of change in mental health systems, and three original letters of reference to:

**Dr. Harold Mielke, Chair  
Search Committee for the Branch Director  
Washington State University at Spokane  
West 601 First Avenue  
Spokane, WA 99204-0399**

Final screening will begin on May 31, 1990 and continue until the position is filled.

Washington State University is an equal opportunity/affirmative action educator and employer. Protected group members are encouraged to apply.



National Institutes of Health  
National Institute of  
Environmental Health Sciences  
Research Triangle Park  
North Carolina

**STAFF FELLOW**

(General Range \$24,000 to \$46,861)

OR

**VISITING ASSOCIATE**

(General Range \$25,000 to \$35,825)

(Starting salaries will be  
commensurate with experience)

A position is available for a staff fellow or visiting associate in the Cellular and Genetic Toxicology Branch, Division of Toxicology Research and Testing of the National Institute of Environmental Health Sciences, one of the institutes of the National Institutes of Health. Both U.S. citizens and non-citizens may apply.

This post will require an individual to develop and assess techniques to examine DNA modifications (DNA adduction and its repair; methylation of CpG sequences that may be related to gene expression) at specific genes and to relate these effects to biological endpoints such as mutation and neoplasia. Candidates should have a Ph.D. degree in a related biological discipline preferably with several years relevant experience in gel electrophoresis, Southern blot analysis, DNA sequencing techniques and the handling of radiochemicals. Experience with <sup>32</sup>P postlabeling and nuclear fragment analysis methods for the detection and quantitation of adducts formed between DNA and carcinogenic and mutagenic chemicals would be helpful.

Applicants should send resumes, names of references (with telephone numbers) and a brief description of previous research experience by June 1, 1990, close of business, to:

**Ms. Norma Daye (Code: HNV19)**  
**NIEHS Personnel Office**  
**P. O. Box 12233**  
**Research Triangle Park, NC**  
**27709**



NIH is an Equal Opportunity Employer

**POSITIONS OPEN**

**FACULTY POSITION**

A senior position is available for an investigator interested in pursuing studies on biological response modifiers on appropriate models for extension into clinical trials. Laboratory research is expected to complement our clinical program in the area. Experience in combined BRM-chemotherapy and mechanism of action of BRM's is preferred. Salary will be commensurate with experience. Send résumé to: **Dr. Fred Valeriote, Division of Hematology and Oncology, P.O. Box 02188, Detroit, MI 48202.**

The Gynecologic Oncology Section of the Obstetrics and Gynecology Department at the University of Nebraska Medical Center is seeking a Ph.D. at the **JUNIOR FACULTY** level in cell biology. The areas of opportunity for this person include tumor growth factors and tumor markers. Interested applicants should submit curriculum vitae to: **Obstetrics and Gynecology Department, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-3255, Attention: David McIntosh, M.D., Section Head, Gynecologic Oncology.** The deadline for applications is 1 July 1990. *The University of Nebraska Medical Center is an Affirmative Action/Equal Opportunity Employer.*

**GLOBAL CLIMATE CHANGE ADVISERS**

The U.S. Agency for International Development (AID) is seeking two individuals to serve as global climate change advisers on 2-year Personal Services Contracts. These positions will be based in Brasilia, Brazil, and Mexico City, Mexico. Main responsibilities include advising on the most cost-effective and environmentally sound methods of reducing emissions of greenhouse gases, especially CO<sub>2</sub>, from deforestation and fossil fuel burning, and assisting in managing projects which address these issues and are economically attractive. Minimum qualifications include: (i) an advanced degree or equivalent experience in an environmental or energy discipline, e.g., forestry, ecology, energy, or environmental planning; (ii) 3 years of relevant experience working in developing countries in areas such as forestry, watershed management, environmental planning, energy planning, etc.; (iii) fluency in Portuguese for the Brazil post, and fluency in Spanish for the Mexico position; and (iv) U.S. citizenship. Send cover letter and résumé or SF-171 by 30 May 1990 to: **James S. Hester, Chief, Environment, Energy and Science Staff, Room 2242 NS, Agency for International Development, Washington, DC 20523-0010.** *AID is an Equal Opportunity Employer.*

Experienced **NEUROSCIENTIST** sought to conduct/supervise single-unit recording studies (auditory system, brain stem, cerebellum) of classical eye blink conditioning in rabbits as part of a team of graduate students and postdoctoral associates. Candidates should have a Ph.D. (or equivalent) and at least 2 years of experience in extracellular microelectrode recording and computer-based methods of experimental control and data manipulation. Other experience (e.g., intracellular recordings, neuroanatomical methods, UNIX and C-programming, systems analysis) would be desirable. The position becomes available 1 September 1990. Salary negotiable, depending on experience, with a minimum of \$30,000 per annum. Send curriculum vitae and names of three references to: **Dr. John W. Moore, Department of Psychology, University of Massachusetts, Amherst, MA 01003.** *An Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION NEUROBIOLOGY/PHARMACOLOGY.** At Tufts University School of Medicine. Position available summer of 1990 to examine postsynaptic inhibitory (GABA) and excitatory (glutamate, etc.) receptor modulation. Experience in molecular biology preferred but not essential. Excellent salary and benefits. Send curriculum vitae to: **Dr. Lawrence Miller, Box 1007, New England Medical Center, 750 Washington Street, Boston, MA 02111.**

**POSTDOCTORAL POSITION.** Available immediately for Ph.D. or M.D. to study the immunochimistry of human tumor antigens with a special emphasis on human monoclonal antibodies and carbohydrates antigens. Experience in immunochimistry, monoclonal antibodies, or carbohydrate chemistry desirable. Send curriculum vitae and names of three references to: **Dr. Kenneth O. Lloyd, Sloan-Kettering Institute, 1275 York Avenue, New York, NY 10021.** *Equal Opportunity Employer, M/F/H/V.*

**POSITIONS OPEN**

**NUCLEAR MEDICINE PHYSICIST.** Position available in large academic nuclear medicine department. The position offers academic appointment at the appropriate level. Extensive research opportunities available. The position requires extensive teaching to radiology and nuclear medicine residents. Equipment includes five computers and seven Gamma cameras. Applicants please send curriculum vitae to: **Dr. Carlos Bekerman, Director, Division of Nuclear Medicine, Michael Reese Hospital and Medical Center, Lake Shore Drive at 31st Street, Chicago, IL 60616.** *Equal Opportunity/Affirmative Action Employer.*

**PESTICIDE CHEMISTRY/TOXICOLOGY.** University of Florida. The Pesticide Research Laboratory, Food Science and Human Nutrition Department, Institute of Food and Agricultural Sciences, is seeking applicants for an **ASSISTANT PROFESSOR** position in pesticide chemistry or pesticide toxicology. A strong research program related to the behavior of pesticides and other xenobiotics in fresh and processed foods or in the soil, water, and air environment will be developed. Applications, including curriculum vitae, official transcripts (sent directly from the institution), a brief statement of research interests, and the names of three references, should be sent no later than 30 June 1990 to: **Dr. H. A. Moye, Search and Screen Committee Chair, Pesticide Research Laboratory, 0531 IFAS, University of Florida, Gainesville, FL 32611.** Telephone: 904-392-1978.

**POSTDOCTORAL ASSOCIATE** (Ph.D. or M.D.). To study the role of the structure on major histocompatibility complex class I proteins in antigen recognition by T cells. Opportunity to use and learn the techniques of molecular biology, protein chemistry, and cellular immunology, as well as to develop an independent line of inquiry. Apply to: **Dr. Jeffrey Frelinger, Department of Microbiology and Immunology, University of North Carolina at Chapel Hill, CB7290 804 FLOB, Chapel Hill, NC 27599.** *The University of North Carolina is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL ASSOCIATE  
REGULATION DURING  
ERYTHROID DIFFERENTIATION  
THE UNIVERSITY OF GEORGIA (UGA)**

A postdoctoral position is available to study either the regulation of heme biosynthesis during erythroid differentiation in cultured MEL cells or the molecular basis of the genetic diseases protoporphyria and variegate porphyria. Candidates do not need to have prior experience with tetrapyrrole biosynthesis or cell culture techniques. A strong background in either biochemistry with basic recombinant DNA techniques or molecular biology is preferred.

Please send curriculum vitae and a list of three references to:

**Dr. Harry A. Dailey**  
**Department of Microbiology**  
**The University of Georgia**  
**Athens, GA 30602**

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

Two **POSTDOCTORAL POSITIONS** available immediately: (i) NIH-funded project investigating phosphorylated neurofilament proteins from cultured neurons. Experience in protein chemistry desirable (Dr. G. S. Bennett). (ii) Funded project to study molecular and cellular aspects of protein trafficking in eukaryote cells. Experience in molecular biology preferred. (Dr. G. M. Small). Apply to: **Department of Anatomy and Cell Biology, Box J-235, University of Florida, Gainesville, FL 32610.**

**POSTDOCTORAL POSITION** available to study the mechanism(s) of resistance of cancer cells to inhibitory growth factors and inducers of terminal differentiation. This question will be approached using a combination of techniques, such as somatic cell-hybridization, chromosome banding and cloning of differentially expressed genes, isolated by subtraction-hybridization. Send curriculum vitae, description of research interests and long-term goals, relevant reprints, and the names of three references to: **Michael Reiss, M.D., Department of Medicine, Section of Medical Oncology, NS 291 (SHM), Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.**



Amylin Corporation has assembled a research team to pursue the pharmaceutical implications of the recent discovery of amylin, a 37 amino acid peptide secreted by pancreatic beta cells (see: Cooper et al., *Biochemica et Biophysica Acta* (1989) 1014, 247-58.) The company's goals include discovery and development of compounds for treating diabetes and conditions secondary to insulin resistance.

#### CELLULAR ENDOCRINOLOGY

The successful candidate will have a Ph.D., a strong background in mammalian cell physiology, and biochemistry and expertise with peptide mediators and/or signal transduction. Familiarity with the preparation of tissues and cells for *in vitro* studies is required. Experience in the pharmaceutical industry is desirable but not essential.

#### PHARMACEUTICAL PEPTIDE CHEMISTRY

This scientist will lead studies of peptide formulation, stability and drug delivery as part of our pharmaceutical development program. Candidates must have a Ph.D. and at least two years of relevant experience.

Amylin offers a stimulating and challenging opportunity to participate in a new area of biomedical science, as well as an excellent compensation and benefits package which includes equity participation. Individuals with appropriate experience and a desire to broaden their career opportunities should reply to: Audrey H. McGovern, Administrative Assistant. Amylin Corporation is an equal opportunity employer.

Amylin Corporation  
9373 Towne Centre Drive  
Suite 250  
San Diego, CA 92121  
Tel. (619) 552-2200  
Fax (619) 552-2212

## POSTDOCTORAL POSITION

### EXPERIMENTAL PATHOLOGY

**H**offmann-La Roche, an international leader in pharmaceutical and medical research and development, is seeking a Postdoctoral Fellow to study the pathophysiology of cytokine-induced alterations in hematopoietic tissue within our Department of Investigative Toxicology. This department is comprised of a multidisciplinary group whose primary responsibilities are 1) the evaluation and screening of novel pharmaceuticals before they are approved for full development, 2) research into mechanisms of efficacy and/or toxicity of pharmaceuticals under development, and 3) research into basic mechanisms of biologic development and disease.

The successful candidate will characterize the interactions between stromal and hematopoietic cells in both *in vivo* and *in vitro* systems of cytokine-enhanced hematopoiesis. Techniques utilized will include light and electron microscopy, immunohistochemistry, and those of molecular biology, in particular nucleic acid hybridization. A background in experimental pathology or molecular biology is required; experience with cytokines or colony stimulating factors is desirable.

For immediate consideration, please send your curriculum vitae, a list of publications, and the names of three references, to: Dr. Timothy D. Anderson, Department of Toxicology and Pathology, Hoffmann-La Roche Inc., Nutley, New Jersey 07110. We are an equal opportunity employer.



**Hoffmann-La Roche**

Working Today For A Healthier Tomorrow.

# R&D SPACE SYSTEMS LIFE SUPPORT SCIENTISTS & ENGINEERS

The BIONETICS Corporation, a life sciences Contractor to NASA, Ames Research Center has current openings for highly qualified scientists and engineers to provide services in the field of Advanced Regenerative Life Support Systems in support of the Space Program. These openings exist in the Scenic San Francisco Bay area and will provide the opportunity for advanced professional growth while allowing an exciting lifestyle. Specific requirements for the ADVANCED LIFE SUPPORT DIVISION are as follows:

## CHEMICAL ENGINEER/ PHYSICAL SCIENTIST

Immediate opening to work with NASA's Bioregenerative Life Support System Program. Must have at least 2-5 years experience preferably in gas separation. Will be developing a gas separation system for a crop research chamber with a filtration system to separate out oxygen, CO<sub>2</sub>, and nitrogen independently. Will interact closely with design engineers. At least a BS in a relevant discipline is required.

## PLANT SCIENTIST/ BIOLOGIST

Immediate openings to work with hydroponics systems for recycling grey water. Must have at least 2-5 years experience in plant growth. Will be using the recovered products of waste processing for nutrients in hydroponic cultures of crop plants. At least a BS in a relevant discipline is required.

Bionetics offers qualified applicants the opportunity to join our nationwide family of over 1800 employees. We offer very competitive compensation and fringe benefits. Interviews will be conducted in the very near future. All applications will be kept confidential. Send current resume with recent salary history to: Mr. John A. Aldredge, Corporate Recruiter.

the

**bionetics**

corporation

2 Eaton St., Suite 1000, Hampton, VA 23669  
(800) 868-0330  
EOE m/f/h/v

## POSITIONS OPEN

**TWO POSTDOCTORAL POSITIONS** are available 1 August 1990 to study long-term synaptic potentiation, the pharmacology and biophysics of NMDA receptors, and their influence on the input-output relation of hippocampal neurons. The projects involve electrophysiological recordings using single-electrode voltage clamp and patch clamp techniques. Training and experience in electrophysiology is required. Candidates should submit curriculum vitae and three letters of references to: **Dr. G. Barrionuevo, or Dr. J. W. Johnson, Department of Behavioral Neuroscience, 446 Crawford Hall, University of Pittsburgh, Pittsburgh, PA 15260.**

**POSTDOCTORAL POSITION.** In pharmacological modulation of plasminogen activator synthesis in endothelial cells. Available immediately. Primary focus on characterization of mechanisms underlying enhanced gene expression after selected pharmacological agents. Techniques employed include endothelial cell cultures, measurements of individual plasminogen activators and their mRNA levels, related DNA-protein binding analysis, and in situ hybridization. Ph.D. degree and/or experience in molecular biology desirable. Send curriculum vitae and names and addresses of three references to: **Dr. Thorir D. Bjornsson, Division of Clinical Pharmacology, Department of Medicine, Jefferson Medical College, 1100 Walnut Street, Philadelphia, PA 19107-5563. Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION.** Conduct research to elucidate molecular mechanisms of insulin and related growth factor action. Study biochemical pathways involved in insulin action and in transformation. Biochemical assays, including gel electrophoresis, phosphorylation assays, and Western blotting; initiate and study growth of cells in tissue culture; molecular biology techniques including plasmid preparation, restriction digests, DNA cloning, and DNA sequencing; minimum cold room time; work with radioactive isotopes. Ph.D. in biochemistry and 1 year of experience. Forty hours per week; salary \$26,000. Medical/dental benefits. Curriculum vitae and three letters of reference to: **Ali O'Brien, Box 97, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.**

### POSTDOCTORAL POSITION

Available immediately to study the molecular mechanisms of follicle growth and differentiation. A strong background in molecular and cellular biology is required. The institution has core facilities for the synthesis of oligonucleotides and peptides, DNA and peptide sequencing, histology, protein purification, molecular biology computation, animal care, and state-of-the-art equipment. Interested candidates should submit full curriculum vitae and names of at least three references to: **Dr. Shunichi Shimasaki, Department of Molecular Endocrinology, The Whittier Institute for Diabetes and Endocrinology, 9894 Genesee Avenue, La Jolla, CA 92037. Telephone: 619-450-4221. FAX: 619-535-9473.**

### UNIVERSITY OF MINNESOTA DEPARTMENT OF PHARMACOLOGY POSTDOCTORAL POSITIONS

The Department of Pharmacology at the Medical School of the University of Minnesota has postdoctoral positions available in several areas of research including:

- Neuropeptides: biochemical and molecular pharmacology, neurochemistry
- Drug and transmitter receptors: molecular biology
- Intracellular electrophysiology: excitatory amino acids and opioids
- Ethanol: membrane structure and function
- Neuropsychopharmacology/toxicology: neurochemistry, behavior, learning, and memory
- Neuronal ion regulation: neurodegeneration, cell signaling mechanisms
- Anticancer drugs: mechanisms of action, resistance, metabolism
- Drug metabolism: aldehyde dehydrogenases and reductases, toxicology

Applicants should send curriculum vitae, statement of research interests, and names of three references to: **Dr. N. E. Sladek, Department of Pharmacology, 3-249 Millard Hall, University of Minnesota, Minneapolis, MN 55455.**

*The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

## POSITIONS OPEN

**POSTDOCTORAL IMMUNOLOGY POSITION** available to study mechanisms of lymphocyte activation. Special focus on natural killer cells, signal transduction, and regulation of gene expression. Integrated program will include evaluations at molecular, biochemical, pharmacological, and cellular levels. Please send curriculum vitae, statement of background and goals, and three references to: **Paul J. Leibson, M.D., Ph.D., Department of Immunology, Mayo Clinic, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION IN VISUAL NEUROSCIENCE.** Available July 1990, in laboratory studying neural circuits and neurotransmitters of visual thalamus and cortex by means of neuroanatomical (LM, EM), immunocytochemical, and electrophysiological techniques. Salary: \$21,000. Support available for 4 years. (There is no citizen restriction in this position.) Send curriculum vitae and names of three references to: **Dr. V. M. Montero, Department of Neurophysiology, University of Wisconsin, 621 Waisman Center, Madison, WI 53705. The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.**

**POSTDOCTORAL POSITION IN BIOLOGICAL SCIENCE.** The Department of Biological Sciences offers a 2-year fellowship to pursue research at the Catalina Marine Science Center from September 1990. Fellow must affiliate with a University of Southern California faculty member and reside at the center on Catalina Island. Research field is open, but should benefit from the facilities available at a marine laboratory. Send three letters of reference and curriculum vitae by 1 July 1990 to: **Dr. Margaret McFall-Ngai, Department of Biological Sciences, University of Southern California, University Park Campus, Los Angeles, CA 90089-0371. An Affirmative Action/Equal Opportunity Institution.**

### POSTDOCTORAL POSITIONS CANCER PHARMACOLOGY/BIOCHEMISTRY SYNTHETIC ORGANIC CHEMISTRY

Two postdoctoral positions available: (i) Study of pharmacology and biochemistry of experimental antitumor agents (pharmacokinetics, metabolism, mechanism of action). Broad range of agents under investigation. A degree in pharmacology, biochemistry, or related field required. (ii) Design, synthesis, and characterization of novel mechanism-based inhibitors of serine proteases and pyrimidine biosynthetic enzymes. A degree in synthetic organic chemistry or medicinal chemistry required. One or both of these positions will be funded by NIH training grant; successful applicants will thus need to meet eligibility requirements for support. Please forward applications including curriculum vitae, a summary of research interest or experience, and names of three references to: **Matthew M. Ames, Ph.D., Chairman, Division of Developmental Oncology Research, Department of Oncology, Mayo Clinic and Foundation, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL POSITION

The Section of Analytical Chemistry, Laboratory of Clinical Studies, National Institute on Alcohol Abuse and Alcoholism (NIAAA), invites qualified individuals to apply for a postdoctoral fellowship for the study of protein-lipid interactions in biological membranes. The section specializes in the study of polyunsaturated phospholipids in relation to their membrane function and metabolism. A unique opportunity exists for the successful applicant to participate in basic studies involving general elements of biomembrane structure and clinical studies involving the biological basis of alcohol action in conjunction with our interdisciplinary group. A background in either protein or lipid biochemistry is appropriate for this position. Applicants should be less than 5 years past the granting of a professional degree and be U.S. citizens or permanent residents. The salary range is from \$28,000 to \$34,000 depending upon experience, and a relocation reimbursement and travel allowance is also available. Interested candidates should send their curriculum vitae, a one-page description of relevant research interests, and three letters of reference to: **Dr. Norman Salem, Jr., NIH/NIAAA, Building 10, Room 3C-102, 9000 Rockville Pike, Bethesda, MD 20892. NIH is an Equal Opportunity Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION IN MICROBIAL ECOLOGY.** Research in one of two areas: (i) autecology of *Frankia* in soil using DNA probes, or (ii) N cycling in forest and agricultural soils using <sup>15</sup>N. Applicants should have a strong background in either molecular biology or stable isotope methodology. Position available for 2 years beginning 1 August 1990. Send curriculum vitae and three letters of reference by 15 July 1990 to: **Dr. David D. Myrold, Department of Soil Science, Oregon State University, Strand Agriculture Hall 202, Corvallis, OR 97331. Telephone: 503-737-2441.**

### PLANT MOLECULAR BIOLOGY

**POSTDOCTORAL POSITION,** available July 1990 for research in transcriptional regulation of plant seed storage protein genes. A Ph.D. in plant molecular biology, biochemistry, genetics, or with experiences in recombinant DNA techniques. Salary \$24,000 per year. Contact: **Dr. Norimoto Murai, Department of Plant Pathology and Crop Physiology, Louisiana State University, Baton Rouge, LA 70803. Telephone: 504-388-1380. An Equal Opportunity Employer.**

**POSTDOCTORAL POSITIONS.** Available immediately. Challenging studies in a unique setting. Investigating cellular/molecular mechanisms of action of microbial toxins, replication of animal viruses, response of mammalian cells to these agents. Fully equipped for all advanced molecular/somatic cell genetic, biochemical, immunological techniques. Approaches include gene cloning, PCR sequencing, transfection analysis. Applicants with backgrounds in eukaryotic molecular biology/biochemistry welcomed. Virology/immunology experience helpful. Send curriculum vitae, research experience, publications, and three references to: **Dr. Thomas Moehring, Department of Microbiology and Molecular Genetics, University of Vermont, Burlington, VT 05405. Telephone: 802-656-2164.**

### POSTDOCTORAL POSITION JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE HEMATOLOGY DIVISION

Available this summer in the area of molecular human genetics and cell biology of hemostasis and thrombosis. To study the platelet fibrinogen receptor, identify mutations resulting in the inherited bleeding disorder Glanzmann thrombasthenia, express cDNAs in mammalian cells, analyze the developmental regulation of receptor expression, and investigate consequences of alternate mRNA splicing. Send curriculum vitae and names of three references to (temporary address): **Paul F. Bray, M.D., M1282, University of California, San Francisco, CA 94143-0128. Telephone: 415-476-2120.**

### CANCER RESEARCH CAMPAIGN BEATSON INSTITUTE FOR CANCER RESEARCH POSTDOCTORAL POSITION

We are looking for a person interested in applying 2D gel electrophoresis to the analysis of the effects of oncogenes and growth factors on a variety of cell types. We will have a state-of-the-art 2D gel system and the computer power and software necessary for comparison and database development. A technical assistant will be provided.

The Beatson Institute consists of ten research groups with interests in different aspects of cancer research at the molecular and cellular levels. The applicant should have a Ph.D. and relevant experience in electrophoresis, protein chemistry, or oncogenes. The salary will be within the range of £13,527 to £16,665 per annum.

Please send curriculum vitae and the names of three referees to: **Dr. Brad Ozanne, Beatson Institute for Cancer Research, Garscube Estate, Switchback Road, Bearsden, Glasgow, G61 1BD, Scotland.**

**POSTDOCTORAL FELLOW.** Two- to four-year position available 1 July 1990 to study plasminogen/plasminogen activator regulation by endothelial cells. M.D. and/or Ph.D. required with experience in molecular biological techniques. Send curriculum vitae and letters of reference to: **Dr. Katherine A. Hajjar, Departments of Medicine/Pediatrics, Cornell University Medical College, 1300 York Avenue, New York, NY 10021. Cornell University is an Equal Opportunity/Affirmative Action Employer.**

## PHARMACOLOGY PHARMACOKINETICS

Applications are invited from research scientists with a Ph.D. in Pharmacology or Pharmacokinetics interested in joining Agouron's exciting receptor-based drug design projects at our laboratories in La Jolla. The successful candidate will design and conduct investigations of the pharmacokinetics and metabolism of drug candidates in animals. Responsibilities will include the development of analytical procedures to monitor drugs and metabolites as well as a close involvement with *in vivo* efficacy trials. We are seeking an individual with 2-5 years of industrial experience who is enthusiastic about working as part of a team and who would enjoy interacting with colleagues in biology, biochemistry, organic chemistry and x-ray crystallography.

Compensation package includes stock option plan. Please apply with curriculum vitae and names of references to:

Human Resources Dept. SW



**Agouron**  
Pharmaceuticals, Inc.

11025 North Torrey Pines Road  
La Jolla, California 92037

## Fermentation Development Microbiologist

Pfizer, a research-driven, Fortune 100 leader in the health care industry, can offer all the opportunity, responsibility and growth that you can manage.

As part of a dynamic team within our bulk chemical and pharmaceutical production facility in Groton, Connecticut, you will take on a variety of critical challenges. These include: maintaining/evaluating production cultures, developing culture strains and conducting laboratory scale projects. You will consult with production, research and engineering principals on operating techniques, train laboratory technicians in culture handling and mutation techniques, and help supervise controlled environment areas, as well as optimize fermentation of existing products.

Qualifications include a minimum of an MS degree in Microbiology combined with 3-5 years in a production/manufacturing environment involving process scaleup and development.

We offer an excellent salary, outstanding benefits, ongoing growth potential and an attractive Connecticut shore location. For immediate, confidential consideration, please forward resume and salary history to: Mr. R. Hightower, Pfizer Inc, Chemical Division, Eastern Point Road, Groton, Connecticut 06340. An equal opportunity employer.



## POSTDOCTORAL RESEARCH NEUROPSYCHOLOGIST

The Child Psychiatry Branch of the National Institute of Mental Health seeks a Ph.D. neuropsychologist to design and carry out clinical studies with developmentally disabled children and adults. Studies with Positron Emission Tomography and Magnetic Resonance Imaging are ongoing. Starting salary negotiable, commensurate with experience. Interest in developmental neurobiology, neuroanatomy and new brain imaging technology is highly desirable. Send curriculum vitae and three references with telephone numbers to:

**Judith L. Rapoport, M.D.**  
Child Psychiatry Branch  
NIMH/NIH  
Building 10/Room 6N240  
9000 Rockville Pike  
Bethesda, Maryland 20892



Women and minorities are encouraged to apply.

NIMH is an Equal Opportunity Employer

## POSTDOCTORAL FELLOWSHIP- CELL BIOLOGY

The Department of Cellular & Molecular Biology in the Merck Sharp & Dohme Research Laboratories has an immediate opening for a postdoctoral fellow to study and manipulate protein secretion in mammalian cells engineered to express recombinant proteins. Investigations will involve the role of molecular chaperones, metabolites and nutritional and environmental factors in mediating the efficiency of post-translational processes. Candidates should have training in cell biology, some experience in molecular biology and a strong interest in the metabolic pathways and processes that support protein translation, post-translational modification and secretion. A knowledge of intermediary metabolism is also highly desirable. This position offers the unique opportunity to collaborate with molecular biologists, analytical biochemists, and biochemical engineers in our department on projects related to therapeutic protein products and proteins which are potential drug targets.

Merck Sharp & Dohme Research Laboratories is located in Rahway, New Jersey approximately 25 miles from New York City. Our facilities are state-of-the-art and our renowned research environment is excellent. For consideration, send your resume with the names of three references to **Susan R. Jenkins, Merck & Co., Inc., P.O. Box 2000, Rahway, NJ 07065.**

An equal opportunity/affirmative action employer m/f/v/h



**Merck & Co., Inc.**

## Entomology/Biochem

Plant Science Research, Inc. is seeking candidates for a position to develop & implement bioassays of potential insecticides & transgenic plants expressing insecticide genes. This is a BS/MS-level position. Qualified applicants for this position will have an MS, or BS with lab research experience beyond the degree, in insect biochemistry or entomology. Biochemistry or chemistry experience is a requirement for this position. Plant Science Research, Inc., a subsidiary of BioTechnica, International, Inc., is an agricultural biotechnology company involved in developing improved varieties of important agricultural crops. Plant Science Research maintains state-of-the-art research facilities in the Minneapolis metropolitan area with a series of plant breeding stations throughout the Midwest. The company's products are marketed through BioTechnica Agriculture's commercial seed companies. Plant Science Research, Inc. offers a multidisciplinary research environment and a competitive salary and benefits package. Applicants should submit a resume and list of 3 references to the attention of Human Resources, Plant Science Research, Inc., 10320 Bren Rd. E., Minnetonka, MN 55343. An AA/EOE Employer.



**Plant Science Research**  
10320 Bren Road East  
Minnetonka, MN 55343

### Faculty Positions in Biochemistry or Tumor Cell Biology St Jude Children's Research Hospital

St Jude Children's Research Hospital, a private research institute, is engaged in a major expansion of its facilities and scientific activities. A new research building to be completed in early 1991 will provide 240,000 square feet of new laboratory space which will house the institute's basic science programs. As part of this expansion, new faculty positions are now available in the Departments of Biochemistry and Tumor Cell Biology. Although preference will be given to applicants who have recently completed postdoctoral training and are seeking positions at the level of Assistant Member, more senior investigators with appropriate research interests and qualifications will be considered for positions of higher faculty rank. Candidates with programs focusing on the regulation of cell growth, differentiation and transformation, the biochemistry and molecular biology of signal transduction, and mechanisms of gene regulation are particularly encouraged to apply. Opportunities exist for collaborative interactions with ongoing basic research programs in Virology and Molecular Biology, Immunology, and Pharmacology, as well as with clinical investigators in Hematology/Oncology and Infectious Disease. In addition to new facilities and excellent start-up funds, salaries are nationally competitive and include a generous benefits package. A strong institutional commitment to its faculty ensures stability in program development and continuity of research activities. Applicants should submit a curriculum vitae, a letter summarizing their research accomplishments and goals, and the names of three references to either:

**James N. Ihle, Ph.D.**  
Chairman, Department of Biochemistry  
or  
**Charles J. Sherr, M.D., Ph.D.**  
Howard Hughes Medical Institute  
Chairman, Department of Tumor Cell Biology  
St Jude Children's Research Hospital  
332 North Lauderdale  
Memphis, TN 38105

St. Jude Children's Research Hospital is an  
Equal Opportunity Employer

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available to study repair of radiation-induced DNA damage in human cells. Specific research areas include purification and characterization of human DNA repair enzymes, mechanistic studies of DNA repair inhibitors, and modulation of cellular DNA repair by retroviral expression of DNA repair enzymes. Experience in molecular biology, biochemistry, or radiation biology is required. Interested individuals should send curriculum vitae and names of three references to: **Dr. Timothy J. Jorgensen, Department of Radiation Medicine, Georgetown University Medical Center, 3800 Reservoir Road, N.W., Washington, DC 20007.** Georgetown University is an Equal Opportunity/Affirmative Action Employer.

### GEORGE S. WISE POSTDOCTORAL FELLOWSHIPS

The George S. Wise Faculty of Life Sciences at Tel Aviv University offers each year postdoctoral fellowships commencing on 1 October in basic and applied biology.

The faculty is engaged in such research areas as anatomy, taxonomy, and physiology of animals and plants; sociobiology; marine biology; ecology and evolution; entomology; cellular and molecular biology and genetics; lipid and protein research; bioenergetics; neurobiology; immunology; virology; cancer biology; biotechnology; and nature conservation.

Application forms can be obtained from: **The Dean, The George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel.** Deadline for applications is 30 June of each year.

### POSTDOCTORAL FELLOWSHIPS

Two positions are available after 1 July 1990 for studies on the biochemistry and molecular biology of isoprenoid metabolism. Of particular interest are studies on the translational control of HMG-CoA reductase and characterization of post-translational modification of nuclear lamina proteins by isoprenoids. Grant support for this program has been obtained for at least 3 years. Please send curriculum vitae to: **Dr. Michael Sinensky, Eleanor Roosevelt Institute for Cancer Research, 1899 Gaylord Street, Denver, CO 80206.** The Eleanor Roosevelt Institute is an affiliated institute of the University of Colorado Health Sciences Center.

### POSTDOCTORAL FELLOWSHIP CLINICAL CHEMISTRY PROGRAM UNIVERSITY OF LOUISVILLE

The Department of Pathology is recruiting an individual with Ph.D. and/or M.D. degrees possessing outstanding credentials and strong motivation for training in clinical chemistry and the basic sciences. This is an opportunity to pursue advanced training in an active university medical setting. We offer a 2-year program emphasizing both clinical training and active involvement in research. The program is an integral part of the pathology residency training, and is affiliated with the biochemistry and pharmacology/toxicology departments. Interested individuals should contact: **Dr. Roland Valdes, Jr., Department of Pathology, University of Louisville School of Medicine, Louisville, KY 40292.**

**POSTDOCTORAL FELLOWSHIPS** in molecular neuroimmunology and neuroimmunomodulation at the University of Alabama at Birmingham (UAB) are available 1 July 1990 on a recently funded NIH Training Grant for basic scientists or clinicians to conduct research on the molecular basis of neuroimmunology, neuroimmunomodulation, and the bidirectional communication between the nervous and immune systems. Preceptors and areas of interest are as follows:

E. N. Benveniste, Ph.D. (cytokines and glia); J. E. Blalock, Ph.D. (neuroimmunomodulation: lymphocyte-derived hormones); E. J. Dropcho, M.D. (paraneoplastic neurological disorders); M. L. Egan, Ph.D. (immunoregulation and natural killer cells); G. Y. Gillespie, Ph.D. (immune response to glial tumors); J. D. Neill, Ph.D. (neuro-endocrinology); D. A. Weigert, Ph.D. (growth hormone and the immune system); and J. N. Whitaker, M.D. (immunochimistry and degradation of myelin basic protein). Interested applicants should submit a letter stating their specific interests, curriculum vitae, and names of three references by 23 May 1990 to: **John N. Whitaker, M.D., Department of Neurology, University of Alabama at Birmingham, Birmingham, AL 35294.** Telephone: 205-934-2402. UAB is an Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH ASSOCIATE

Postdoctoral position: molecular biology and genetic transformation in marine algae. Ph.D. and experience in molecular biology techniques and cell culture required. Experience with culture of marine algae desirable. Send résumé and three letters of recommendation by 1 June 1990 (noncitizens must include current visa status) to: **Dr. Subhash C. Minocha, Department of Plant Biology, University of New Hampshire (UNH), Durham, NH 03824.** Telephone: 603-862-3840. UNH is an Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL RESEARCH IN PROTEIN STRUCTURE, DYNAMICS, FUNCTION

Postdoctoral positions are available to study front line problems in protein structure and function by use of advanced hydrogen exchange, NMR, and other physical/chemical methods. Competitive salary. Please send curriculum vitae and statement of research interests and ask that letters of reference be sent to: **S. W. Englander, Department of Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, PA 19104-6059.**

**POSTDOCTORAL RESEARCH ASSOCIATE.** Brookhaven National Laboratory. The Biology Department has a position available for a recent Ph.D. in biology or related degree with experience using electron microscopy. The successful candidate will conduct research using new organometallic immunolabels and their application to cellular studies with chromosome mapping. Applicants should submit curriculum vitae with a list of publications, a statement of research interests, and names of three references to: **Dr. James F. Hainfeld, Biology Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, L.I., NY 11973.** Telephone: 516-282-3372. Equal Opportunity Employer, M/F.

**POSTDOCTORAL RESEARCH SCIENTIST.** Columbia University Orthopaedic Research Laboratory. A position is available for an enthusiastic Ph.D. to study the biochemistry of cartilage and other connective tissues within the biochemistry section of an active multidisciplinary research team in a newly equipped laboratory. Candidates should be knowledgeable in protein/carbohydrate biochemistry, immunochemistry, tissue culture, and/or molecular biology. A competitive salary range of \$28,000 to \$35,000 per annum is being offered. Interested candidates should send their curriculum vitae to: **A. Ratcliffe, Ph.D., Orthopaedic Research Laboratory, Columbia-Presbyterian Medical Center, 630 West 168th Street, BB-1412, New York, NY 10032.**

### RESEARCH ASSISTANT

A research-oriented person to assist in data management and analysis for medical research project. B.S./M.S. in biological or related field with strong SAS programming skills. Tuition benefits. Send letter and résumé to: **James Zablony, George Washington University Biostatistics Center, 6110 Executive Boulevard, Suite 750, Rockville, MD 20852.** No phone calls please. Equal Opportunity/Affirmative Action Employer.

**RESEARCH SCIENTISTS.** Research positions available for studies in cancer research. Qualified applicants should possess a Ph.D. in biological science. Experience in biochemical/molecular biological/tissue culture/microscopy imaging methods is highly desirable. Send curriculum vitae to: **Trish Nunziata, Radiation Oncology Department, Long Island Jewish Medical Center (LIJMC), New Hyde Park, NY 11042.** LIJMC is the Long Island Campus for the Albert Einstein College of Medicine. Equal Opportunity Employer.

**RESEARCHER.** Position available. Duties: Perform technological research using confocal and video microscopy and three-dimensional image computing. Develop methods for imaging static and living cells in three dimensions, with particular emphasis on time-course experimentation. Minimum requirements: Ph.D. in biology. Minimum of 3 years of postdoctoral experience in cell biology to include 2 years of work experience developing and applying novel imaging methods to explore cellular behaviors. Forty hours per week minimum; \$33,000 per year. Send applications and two letters of reference by 8 June 1990 to: **Ms. Judy Hedrick, 206 North Broom Street, Madison, WI 53703, Job Order #0379271.** An Equal Opportunity Employer. Women and minorities are encouraged to apply. Employer-paid ad.



## ***Immunology/ Inflammation Group Leader Position***

Searle Research & Development is seeking two individuals to fill complementary group leader positions in its St. Louis laboratories. Each will be responsible for leading a team of scientists in the discovery of new drug candidates for the treatment of autoimmune and inflammatory diseases. We are looking for qualified candidates with an M.D. or Ph.D. and a strong record of accomplishment in at least one of the following areas: immunoregulation, cell-cell interaction in autoimmune inflammatory disease models, antigen processing and presentation, T-cell effector function, and eicosanoid regulation of the inflammatory and immune response. Candidates must have a record of publication demonstrating ability to lead independent and creative research. Expertise in cellular immunology and immunopharmacology is required and experience in working in a collaborative team environment is preferred.

Searle, a wholly owned subsidiary of Monsanto Company, offers competitive salary and benefit plans. Qualified applicants should send resumes in confidence to: **Joan M. Lineberry - MCB2; Searle, BB4E; 700 Chesterfield Village Parkway; St. Louis, MO 63198.** An Equal Opportunity Employer.

**SEARLE** 

## **JPL/NASA VISITING SENIOR SCIENTISTS EARTH SCIENCE AND APPLICATIONS DIVISION**

### **Earth Observing Systems**

The Jet Propulsion Laboratory invites applications to its Visiting Senior Scientist Program in the Earth Observing System Program.

An opening exists for a Visiting Senior Scientist with a strong background in Earth Sciences to work with the Earth Observing System (Eos) Program Scientist at NASA Headquarters in Washington, D.C. The individual selected will be expected to represent the interests of the research community with particular emphasis on the performance specifications for spaceborne sensors and the ground-based Data and Information System.

Prospective candidates must hold a PhD (or have equivalent training and experience) in terrestrial hydrology, ecology, geology, geophysics or a closely related field. Appointees are encouraged to maintain their research base while at NASA. Monthly two-day visits to the appointee's home institution are encouraged and supported. Financing of travel to scientific meetings and publications is also available.

Tenured faculty members are the preferred choice with a desired start date in the early summer of 1990. Appointees must be U.S. Citizens or Permanent Residents and are expected to return to their home institution following their NASA assignment. Frequent domestic/foreign travel and residence in the Washington, D.C. area will be required. For more information about the scope of the program and position responsibilities, contact Dr. W. Stanley Wilson at NASA headquarters, (202) 453-1725.

Please provide curriculum vitae, bibliography and the names of four references to Department T-64.

Dr. Harry Ashkenas 180-900  
Jet Propulsion Laboratory  
4800 Oak Grove Drive  
Pasadena, CA 91109  
(818) 354-8251.

*Equal Opportunity Employer*

## **Protein Chemistry/Instrumentation**

**If You Thrive In A Dynamic Research Environment,  
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The Protein Chemistry Department of the Medical Research Division of American Cyanamid is seeking a Scientist who is interested in working in a highly integrated, competitive research environment comprised of Molecular Biologists, Cell Biologists, Physiologists and Protein Chemists. The Molecular Biology Research Section focuses on research exploring the structures and functions of growth factors/cytokines, oncogenes, and viral proteins for the purposes of better understanding the molecular and cellular mechanisms of diseases and for identifying new drug targets.

We are seeking a **Protein Chemist** who will take full responsibility for the operation of a laboratory fully equipped with state-of-the-art protein chemistry instrumentation, including Applied Biosystems Protein Sequencer, Peptide Synthesizer, Amino Acid Analyzer, Micro-HPLC, etc. The incumbent will collaborate with other scientists on departmental research projects, and she/he will have a strong interest in solving research problems using the most advanced methodology.

The successful candidate will need a degree, preferably a M.S., or B.S. in Analytical Biochemistry, or an equivalent degree, with 3-5 years of professional experience in operating and maintaining state-of-the-art protein chemistry instrumentation, in particular the gas-liquid phase protein sequencer. A desire for team work, superior technical skills, and a dedication to excellence in performance are essential. Experience in Protein Chemistry Core Facility operations is highly desirable.

American Cyanamid, Lederle Laboratories, is an established leader in pharmaceutical research and is located in Pearl River, approximately 25 miles north of New York City. We recognize the importance of this position and are prepared to offer an exceptional compensation package to individuals with the required professional experience. In addition to an outstanding compensation, we also offer comprehensive benefits including 401K savings plan. For consideration, please send your resume and the names of three references to: Professional Employment Office, Dept. P.B., Lederle Laboratories, Pearl River, NY 10965. An Equal Opportunity Employer m/f.



## POSITIONS OPEN

### IMMUNOLOGIST/ ASSOCIATE RESEARCH SCIENTIST

The Surgical Immunology Research Laboratory at the West Haven Veterans Administration (VA) Medical Center is looking for a Ph.D. **DIRECTOR** to oversee one to three surgical resident trainees and participate in studies of lymphocyte signal transduction, neuroenteric mediators of immune function, and the effect of immunosuppressives on second messengers and activation events. A permanent salary line from Bridgeport Hospital funds this geographic full-time position at West Haven, 5 minutes by shuttle bus to the Yale main campus. *Bridgeport Hospital, Yale University, and the West Haven VA Medical Center are all Equal Opportunity Employers and applications from women and minorities are encouraged.* Send curriculum vitae to: **Marvin A. McMillen, M.D., Director, Surgical Intensive Care Unit, West Haven VA Medical Center, West Spring Street, West Haven, CT 06516.**

### MOLECULAR VIROLOGY RESEARCH MAYO CLINIC-ROCHESTER

The Division of Experimental Pathology and Laboratory Medicine at Mayo Clinic, Rochester, Minnesota, is seeking an established investigator to carry out a program of basic research into the molecular mechanism and pathogenesis of herpesvirus infections. *Candidates for this staff position must be U.S. citizens or permanent residents trained in molecular virology techniques with an established track record of successful investigation in the field of virology.*

This is an excellent opportunity for an individual to carry out basic research in a clinical environment. We seek an individual who is interested in the problems of viral latency and reactivation in organ transplantation. State of the art facilities, space, equipment, and start-up support and the extensive resources of the Mayo Clinic research community will be available to the incumbent.

Qualified candidates should submit detailed curriculum vitae and bibliography to: **Thomas P. Moyer, Ph.D., Department of Laboratory Medicine and Pathology, Mayo Clinic, Rochester, MN 55905.**

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### REPRODUCTIVE BIOLOGIST (RESEARCH)

Located at the National Zoological Park, Washington, D.C. The incumbent will provide expertise for developing a genetic resource bank for rare wildlife species. The multidisciplinary skills of the incumbent will assist expanding existing research in cryobiology, endocrinology, andrology, embryology, and fertility/infertility. These projects are oriented to the maintenance of genetic and biodiversity through the cryopreservation of germ plasma and the use of biotechnology for understanding and promoting reproduction in wildlife species. The incumbent will be required to conduct independent research in a reproductive biology area which enhances the utility of a germ plasma repository, including developing sperm function, and/or monitoring endocrine activity. The incumbent will be required to devote major efforts to securing extramural research support. Candidates must have: a Ph.D. or equivalent doctoral degree; reproductive research experience in a variety of animal species; skills in sperm assessment and cryopreservation, as well as radioimmunoassay of steroid hormones; and a record of publications in highly respected scientific journals. To request an application package, write: **Smithsonian Institution, Office of Personnel Administration, Branch 3, P.O. Box 23294, Washington, DC 20026-3294, Attention: #90-3068, or call: 202-287-3100, ext. 254, by 30 May 1990. The Smithsonian Institution is an Equal Opportunity/Affirmative Action Employer.**

**SENIOR SCIENTIST, SEROLOGY.** Supervise and conduct research and evaluation of procedures and techniques for development of infectious disease immunoassays. Will work to discover unique reagents for capturing IgM in immunoglobulin in blood to develop tests for detection of early viral infections such as hepatitis. Five years of experience required or related occupation in serology or virology. Must also have experience in IgM antibody capture, monoclonal antibody generation, and infectious disease diagnostics in hepatitis. Salary: \$45,000 per year; hours: 9 a.m. to 5 p.m. Send résumé in duplicate to: **Beckton Dickinson Advanced Diagnostics, Department RO, 225 International Circle, Cockeysville, MD 21030.**

## POSITIONS OPEN

**ASSOCIATE PROFESSIONAL SCIENTIST.** To carry out research in atmospheric chemistry. This includes reading and synthesizing current literature, planning experimental programs (including quality assurance procedures), collecting appropriate samples in the field, analyzing samples in the laboratory, analyzing and interpreting results using statistical methods, including receptor modeling, and reporting results via contract reports, conference presentations, and journal articles. Initial efforts will focus on measurements of airborne toxic materials in urban and rural areas of Illinois and atmospheric deposition of toxic materials to the Great Lakes.

The minimum requirements for the position include a Ph.D. in environmental chemistry, geography, or meteorology and 4 years of research experience. Experience must include field or laboratory experience; the use of receptor modeling statistics, specifically factor analysis and chemical mass balance models; work with neutron activation analysis; the operation/management of collection networks; and work with large data sets; five publication in one or more of the following areas: water, soil, or atmospheric chemistry; atmospheric sampling; and air pollution meteorology. Experience may be obtained during graduate study. Salary: \$36,450. Availability: as soon as possible. Send résumé to: **Ms. Helen Vedder, Illinois Department of Employment Security, 1008 West University, Urbana, IL 61801-0549. Reference No. 1579-B. This is an employer-paid advertisement and an Affirmative Action/Equal Opportunity Employer.**



### TECHNICAL SALES REPRESENTATIVE

Stratagene, an innovative supplier of molecular biology research products, is expanding its sales force across the United States and is in search of qualified and experienced technical sales representatives. These positions represent a unique opportunity for qualified individuals to participate in a growing technical sales organization. A position is available immediately in the Midwest and other openings will become available during 1990. Candidates should have strong practical experience in molecular biology or related field. Prior sales experience is beneficial.

Sales representatives will attend an extensive 1-month training program at our beautiful coastal location in La Jolla, California. Stratagene offers excellent company benefits including a 401(K) Plan and a competitive salary and incentive program. All qualified candidates forward résumé of qualifications to:

**Stratagene  
Attention: Human Resources  
11099 North Torrey Pines Road  
La Jolla, CA 92037**

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

**TECHNICAL SPECIALISTS.** Emory University Hospital, Atlanta, Georgia. **HEMATOLOGY:** Recruiting for technologist with experience in molecular biology to perform molecular biology testing as it applies to the diagnosis of hematologic malignancies. Potential for supervisory responsibilities. Requires MT (ASCP) or equivalent registry with 3 years of related experience or master's degree with 1 year or bachelor's degree and 3 years of experience in molecular biology in lieu of certification. **BLOOD BANK:** Recruiting for technologist with theoretical and working knowledge of basic and advanced immunology and immunological methods and the ability to adapt this knowledge to the area of transfusion medicine. Requires master's degree in related specialty area and 4 years of experience or bachelor's degree and 6 years of related experience. To apply, call or send résumé to: **Emory University, Personnel Department, 637 Asbury Circle, Atlanta, GA 30322. Telephone: 404-727-7611. An Equal Opportunity/Affirmative Action Employer.**

### WATER QUALITY SPECIALIST

Industry has an immediate opening for an environmental specialist or engineer. Minimum requirement: B.S. in biology, chemistry, or environmental engineering or related field and 3 to 5 years of experience in environmental work. Salary commensurate with experience. Send résumé in confidence to: **P.O. Drawer 1208, Clewiston, FL 33440, Attention: Ed Barber.**

## ANNOUNCEMENTS

### CALL FOR POSTERS

The Center for Alternatives to Animal Testing at the Johns Hopkins School of Public Health is sponsoring its seventh international symposium:

### IN VITRO TOXICOLOGY: MECHANISMS AND NEW TECHNOLOGY 27 TO 29 NOVEMBER 1990

This symposium will be held in Baltimore, Maryland. We encourage the submission of abstracts for poster presentations. Posters of academic endeavors and organizations offering products of importance to in vitro toxicology studies are encouraged.

To request poster presentation instructions, please contact: **Mrs. Jeannene Tylee, The Johns Hopkins Center for Alternatives to Animal Testing, 615 North Wolfe Street, Baltimore, MD 21205. Telephone: 301-955-3343. FAX: 301-955-0258. Deadline for submission of poster abstracts: 30 October 1990.**

### POSTDOCTORAL POSITIONS AVAILABLE AT THE UNIVERSITY OF PENNSYLVANIA SMELL AND TASTE CENTER

Beginning June 1, 1990, the University of Pennsylvania Smell and Taste Center will have available postdoctoral positions in the fields of neuropsychology, animal behavior/physiological psychology, human sensory psychophysics, and patient data base management/computer science. Salaries commensurate with qualifications and experience. Send curriculum vitae and names of three references to **Richard L. Doty, Ph.D., Director, Smell and Taste Center, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104-4283. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.**

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## DOE HUMAN GENOME PROGRAM ANNOUNCEMENT OF SPECIAL RESEARCH GRANTS

The U.S. Department of Energy (DOE) announces its 1990 Special Research Grants competition in support of the Human Genome Initiative. Several research goals are encompassed in the March 21, 1990, *Federal Register* Notice 90-5, Vol. 55, pg. 10486, supporting research and conferences for:

- (1) Development of innovative technologies and resources necessary for the physical mapping of human chromosomes;
- (2) Development of advanced DNA sequencing technology, particularly innovative new approaches with potential for rapid, cost-effective sequencing;
- (3) Development of data management systems for use in DNA mapping and sequencing, including data structures, retrieval schemes, user interfaces, and advanced database theory;
- (4) Addressing ethical, legal, and societal issues that may arise from applications of knowledge and materials resulting from the Human Genome Initiative. For a more detailed description of issues and specific research topics to be addressed relative to this goal, please see "Ethical, Legal, and Social Implications of the Human Genome Initiative" in the NIH Guide to Grants and Contracts, Vol. 19, No. 4, January 26, 1990.

**PRE-APPLICATION AND FURTHER INFORMATION:** Before preparing a formal application, potential applicants are encouraged to submit a brief pre-application consisting of two to three pages of narrative describing the research project objectives and method of accomplishment. These will be reviewed relative to the scope and the research objectives of the DOE Human Genome Program. Pre-applications should be sent to: Dr. Benjamin J. Barnhart, Office of Health and Environmental Research, ER-72 (GTN), Washington, D.C. 20545, (301) 353-5037. A response to the pre-applications discussing the potential program relevance of a formal application will be communicated within four weeks after receipt.

Formal applications submitted in response to this notice must be received by the Division of Acquisition and Assistance Management by August 8, 1990, for consideration by an ad hoc review panel. The formal applications should be sent to: U.S. Department of Energy, Office of Energy Research, Division of Acquisition and Assistance Management, ER-64, Room G-236, Washington, D.C. 20545, ATTN: Program Notice 90-5.

## GRADUATE PROGRAM IN MOLECULAR BIOLOGY AND GENETICS

Director: Carlo M. Croce, M.D.  
Chairman, Graduate Studies: James H. Keen, Ph.D.

As part of intensive development in the fields of molecular biology, molecular genetics and structural biology, a new doctoral program has been established by faculty of the Fels Institute for Cancer Research and Molecular Biology and several other departments of Temple University. Areas of training include:

**Molecular genetics of growth control, oncogene activation and cancer suppression** (Drs. Renato Baserga, Bruno Calabretta, Carlo Croce, Danuta Kozbor, Edward Mercer, Veena Rao, Shyam Reddy, Tapan Som).

**Genomic Structure and transcriptional and developmental regulation** (Drs. Martyn Darby, Tadaatsu Goto, Kay Huebner).

**Molecular and structural biology of receptors and signal transducers** (Drs. Jeffrey Benovic, Thomas Frielle, Bradford Jameson, James Keen, Gerald Litwack, Woon Ki Paik, Dianne Soprano).

**Mechanisms of DNA repair and chemical carcinogenesis** (Drs. Kim deReil, Nahum Duker, Earl Henderson, Prabhakar Lotlikar, Peter Magee, Arthur Schwartz, Michael Sirover).

The program has numerous specialized facilities available including peptide and oligonucleotide synthesis, and sequencing facilities, cell sorting by flow cytometry, computer facilities equipped for molecular modeling and 3-D structure prediction, magnetic resonance, low angle laser light scattering, electron microscopy, and is developing laboratories in X-ray crystal structure analysis.

Students accepted into the program will be provided with predoctoral support including waiver of tuition and a stipend of \$12,000 per year. For interested and qualified students, a M.D./Ph.D program is available.

For further information regarding September 1990 entrance, contact: **Dr. James H. Keen, Molecular Biology and Genetics Program, Fels Institute for Cancer Research & Molecular Biology, Temple University School of Medicine, 3420 N. Broad Street, Philadelphia, PA 19140. (215) 221-4354.** Temple University is an Equal Opportunity Employer/Affirmative Action.



*Cold Spring Harbor Laboratory Centennial Symposium*

## EVOLUTION: FROM MOLECULES TO CULTURE September 24 - 27, 1990

Organized by:

**Richard Dawkins, Oxford University**  
**Jared Diamond, University of California, Los Angeles**

### MOLECULAR EVOLUTION

**Cyrus Chothia, Medical Research Council, Cambridge**  
**Russell F. Doolittle, University of California, San Diego**  
**Morris Goodman, Wayne State University School of Medicine**  
**Motoo Kimura, National Institute of Genetics, Japan**  
**Michael S. Waterman, University of Southern California**

### FUNCTIONAL MORPHOLOGY

**Simon Conway Morris, University of Cambridge**  
**Susan W. Herring, University of Illinois at Chicago**  
**Carole Hickman, University of California, Berkeley**  
**George V. Lauder, University of California, Irvine**  
**Karl J. Niklas, Cornell University**  
**Reinhard M. Rieger, University of Innsbruck**

### THE COMPARATIVE METHOD

**Timothy Clutton-Brock, University of Cambridge**  
**Paul Harvey, Oxford University**  
**Raymond B. Huey, University of Washington, Seattle**  
**Wayne Maddison, University of California, Berkeley**  
**Mark D. Pagel, Oxford University**  
**Mark Ridley, Emory University**

### ANIMAL BEHAVIOR

**Stevan J. Arnold, University of Chicago**  
**Nick B. Davies, University of Cambridge**  
**Juan D. Dells, University of Konstanz**  
**Peter Jenkins, University of Auckland**

### SEX AND SEXUAL SELECTION

**Malte Andersson, University of Gothenburg**  
**Jack Bradbury, University of California, San Diego**  
**Alan Grafen, Oxford University**  
**W. D. Hamilton, Oxford University**  
**Linda Partridge, University of Edinburgh**

### HUMAN SOCIETY

**Kent V. Flannery, University of Michigan, Ann Arbor**  
**Patrick V. Kirch, University of California, Berkeley**  
**Colin Renfrew, University of Cambridge**  
**Henry Wright, University of Michigan, Ann Arbor**  
**Douglas E. Yen, Bishop Museum, Honolulu**

### LINGUISTICS

**Aharon Dolgopolsky, Haifa University**  
**Vyacheslav Ivanov, USSR Academy of Sciences**  
**Alexis Manaster-Ramer, IBM Research, Yorktown Heights**  
**Merritt Ruhlen, Palo Alto, California**  
**Vitaly Shevoroshkin, University of Michigan, Ann Arbor**  
**Sergej Starostin, USSR Academy of Sciences**

### OVERVIEW

**Luigi Cavalli-Sforza, Stanford University School of Medicine**  
**Richard Dawkins, Oxford University**  
**David L. Hull, Northwestern University**  
**John Maynard Smith, University of Sussex**  
**Ernst Mayr, Museum of Comparative Zoology**

Registration materials may be obtained from:

**Meetings Coordinator**

**Cold Spring Harbor Laboratory**  
**Cold Spring Harbor, NY 11724**  
**(516) 367-8346 FAX (516) 367-8845**



**NATIONAL CANCER INSTITUTE  
NATIONAL INSTITUTES OF HEALTH  
PUBLIC HEALTH SERVICE**

## CANCER PREVENTION FELLOWSHIP PROGRAM

The Division of Cancer Prevention and Control (DCPC) is accepting applications for the Cancer Prevention Fellowship Program (CPFP). The purpose of this program is to attract individuals from a multiplicity of health science disciplines into the field of cancer prevention and control. The program provides for: Participation in the DCPC Cancer Prevention and Control Academic Course; Working at NCI directly with individual preceptors on cancer prevention and control projects; Field assignments in cancer prevention and control programs at other institutions. Funding permitting, as many as ten Fellows will be accepted for up to three years of training, beginning July 1, 1991. Benefits include selected relocation and travel expenses, paid federal holidays, and participatory health insurance.

### ELIGIBILITY

M.D. or D.D.S. from a U.S., territorial, or Canadian Medical School. Foreign medical graduates must have current ECFMG/IMG certification and appropriate experience, e.g., one year residency in a training program approved by the Accreditation Council for Graduate Medical Education.

### OR

Ph.D., Dr. P.H. or other doctoral degree in a related discipline (epidemiology, biostatistics, and the biomedical, nutritional, public health or behavioral sciences). Foreign education must be comparable to that received in accredited U.S., territorial, or Canadian institutions.

### PLUS

U.S. citizenship or resident alien eligible for citizenship within four years.

For details and application catalog, send a postcard or letter with your name and home address to:

**Douglas L. Weed,  
M.D., M.P.H., Ph.D., Director  
Cancer Prevention  
Fellowship Program  
Division of Cancer  
Prevention and Control  
National Cancer Institute  
Executive Plaza South, T-41  
Bethesda, MD 20892**



Further Inquiries: Mrs. Barbara Redding,  
(301) 496-8640 or 496-8641.

**Deadline for receipt of Applications:  
September 1, 1990**

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## ANNOUNCEMENTS

### ALFRED P. SLOAN FOUNDATION SABBATICAL AWARDS IN MOLECULAR STUDIES OF EVOLUTION

Molecular or evolutionary biologists at U.S. and Canadian institutions are invited to apply for sabbatical awards for academic year 1991 to 1992, for development of interdisciplinary knowledge needed for molecular studies of evolution. Awards include matching funds or sabbatical salary and expendable allowance. Deadline: 29 June 1990. Contact: **Dr. Michael S. Teitelbaum**, 630 Fifth Avenue, Suite 2550, New York, NY 10111. Telephone: 212-649-1649.

### KENNETH MORGAREIDGE AWARD

To acknowledge and promote excellence in the area of toxicology, the International Life Sciences Institute (ILSI) annually sponsors the Kenneth Morgareidge Award. The \$5000 award will be presented at an international symposium in March 1991. The recipient must accept in person and present an overview of research. Candidates must be from academia, government, or industry. All documents must be in English. Deadline is 1 October 1990. For application, contact: **F. DeLuca**, ILSI, 1126 16th Street, N.W., Washington, DC 20036. Telephone: 202-659-0789.

## SITUATIONS WANTED

**BEHAVIORAL SCIENTIST/RESEARCH PSYCHOLOGIST**, Ph.D. (1984). Skills in teaching, research design, univariate and multivariate statistics. Prefer government/industry, academic research. Box 33, SCIENCE.

**BIOCHEMIST**, Ph.D. In federal with 10 years of experience in enzymology, drug metabolism, etc. Seeks tenure research staff position in federal. 4239-K, Barcelos Drive, St. Louis, MO 63129.

**BIOTECHNOLOGY MANAGER** available. M.S., biochemistry; 20 years of experience: laboratories, direct sales, sales management. Specialties include chromatography, electrophoresis, molecular biology. **Thomas Jakubowski**, 1224 West Street, Naperville, IL 60563. Telephone: 708-717-0694.

**RESEARCH ASSISTANT**. M.Sc. biology; 15 years of experience: ecology, botany, medicine, epidemiology, experimental design, statistics, writing. Canadian/U.S. citizen. 1-292 Daly Avenue, Ottawa, Ontario K1N 6G5, Canada. Telephone: 613-231-3386.

## MEETINGS

An invitation in celebration of Singapore's 25th anniversary to:

### BIOTECHNOLOGY: THE NEXT DECADE

11 June 1990

Mandarin Hotel, Orchard Road, Singapore

Organized by: Economic Development Board of Singapore and Institute of Molecular and Cell Biology, National University of Singapore.

- New genetic approaches to human biology: **Sydney Brenner**, MRC, U.K.
- Manipulating the immune system with monoclonal and engineered antibodies: **Herman Waldmann**, University of Cambridge, U.K.
- Neuroscience: An agenda for the 1990's: **W. Maxwell Cowan**, Howard Hughes Medical Institute, Bethesda, U.S.A.
- Design for new drugs through genetically engineered targets: **William Rutter**, Chiron Corporation, U.S.A.
- Catalytic antibodies: **Richard Lerner**, Institute of Scripps Clinic, U.S.A.

The symposium is open to all. Due to limited places, admission is on a first-come-first-served basis and is free. Inquiries to:

**Y. H. Tan**  
Institute of Molecular and Cell Biology  
National University of Singapore  
Singapore 0511  
FAX: 65-777-0402

## COURSES AND TRAINING

### CARDIOVASCULAR PATHOPHYSIOLOGY FOR ENGINEERS AND PHYSICAL SCIENTISTS

A 1-week intensive course sponsored by the Massachusetts Institute of Technology (MIT), 11 to 15 June 1990, Cambridge, Massachusetts. Dr. Richard I. Cohen, Program Director. Basic Principles of Cardiovascular Physiology, Cardiovascular Medicine, Diagnostic and Therapeutic Technologies. Contact: **Director of the MIT Summer Session**, telephone: 617-253-2101.

### PERINATAL CARCINOGENESIS: CURRENT DIRECTIONS WORKSHOP, 21 AND 22 MAY 1990 FREDERICK, MARYLAND

Sponsored by the Laboratory of Comparative Carcinogenesis, Division of Cancer Etiology, National Cancer Institute, at the Frederick Cancer Research Facility. Informal cross-disciplinary presentations and discussions on biochemical, molecular, pathological, and epidemiological aspects of perinatal carcinogenesis in animals and humans. Preregistration required. For information and registration, call: **Dr. Lucy M. Anderson** or **Mrs. Ann B. Jones**, telephone: 301-698-5600; FAX: 301-698-5946.

## MARKETPLACE

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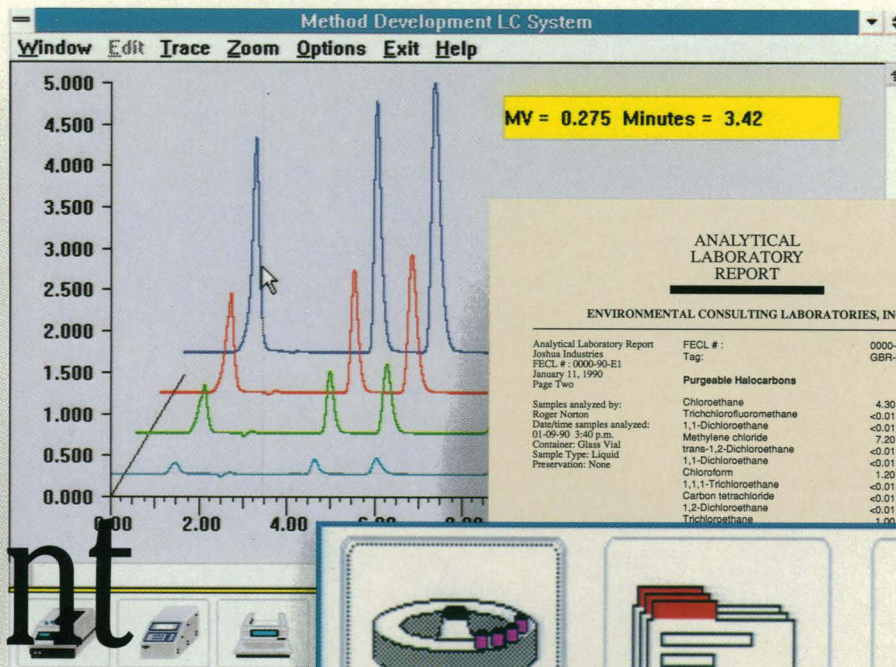
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REPORT**

ENVIRONMENTAL CONSULTING LABORATORIES, INC.

Analytical Laboratory Report Joshua Industries FECL # : 0000-90-E1 January 11, 1990 Page Two	FECL # : Tag:  <b>Purgeable Halocarbons</b> Chloroethane Trichlorofluoromethane 1,1-Dichloroethane Methylene chloride trans-1,2-Dichloroethane 1,1-Dichloroethane Chloroform 1,1,1-Trichloroethane Carbon tetrachloride 1,2-Dichloroethane Trichloroethane	0000-90-E1 GBR-EH A  4.30 mg/l <0.01 mg/l <0.01 mg/l 7.20 mg/l <0.01 mg/l <0.01 mg/l 1.20 mg/l <0.01 mg/l <0.01 mg/l <0.01 mg/l 1.00 mg/l
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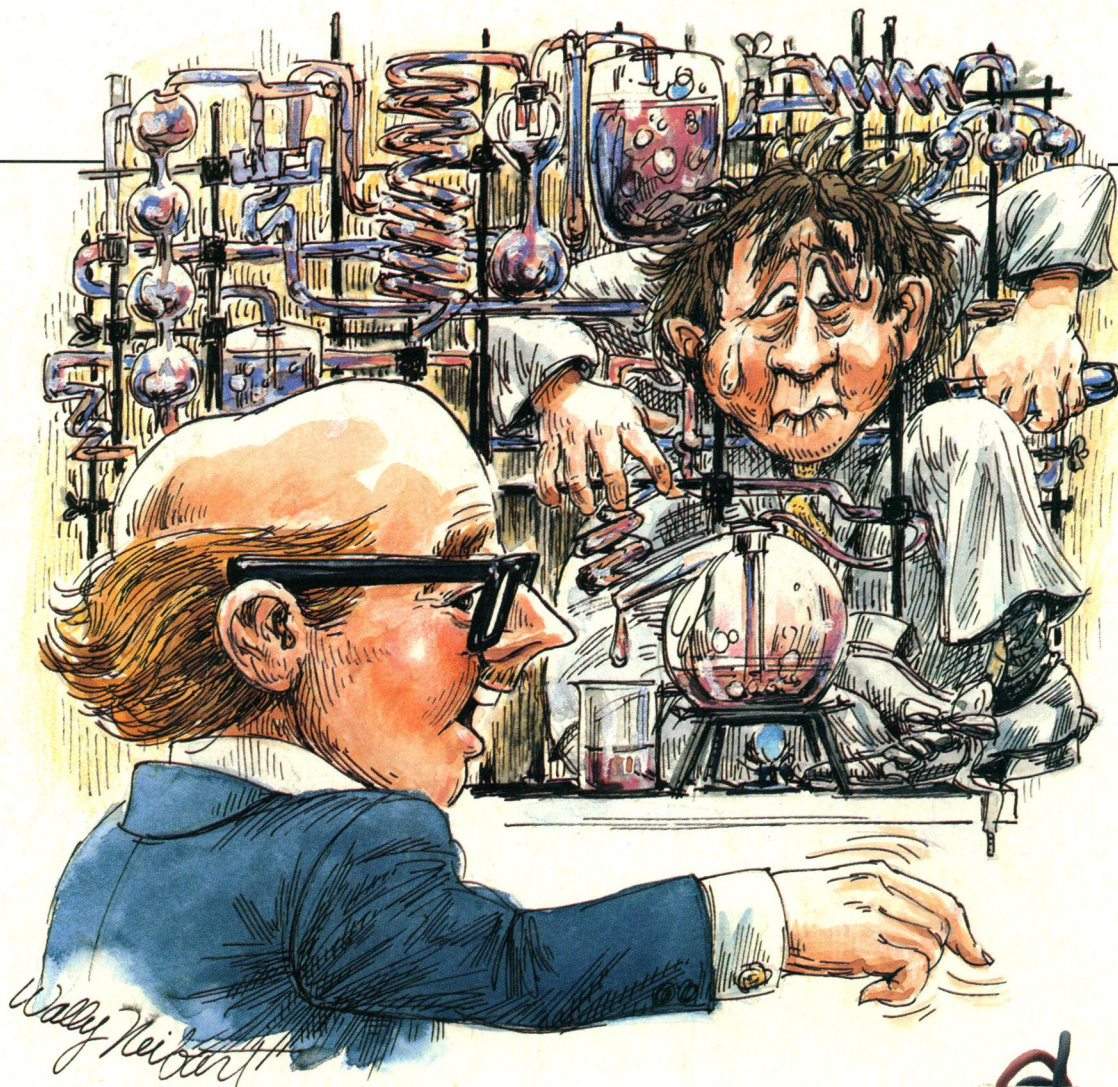
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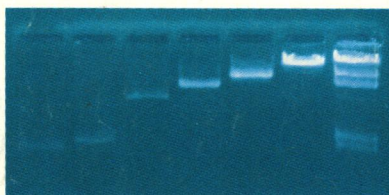
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