

of a number of the major participants in the parity revolution, in particular Lee's own reminiscences. There are also several reports on contemporary research topics, including a paper by Lee on soliton stars and soliton black holes.

Under Lee's energetic leadership, a program (CUSPEA) was set up in 1980 to identify highly qualified physics students in China for graduate work in American universities. Since then about 800 students have engaged in Ph.D. studies here. The origins, vicissitudes, and successes of CUSPEA merit a book-length account, and one hopes that Lee will some day write it. The proceedings volume concludes with papers by CUSPEA students. It also contains a large number of photographs taken at the symposium. It is good to report that the heroes of the parity revolution have not changed all that much in appearance over the intervening years, least of all Lee himself.

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## Piaget Under Scrutiny

**Piaget's Construction of the Child's Reality.**  
SUSAN SUGARMAN. Cambridge University Press,  
New York, 1987. vii, 258 pp. \$34.50.

On reading *Piaget's Construction of the Child's Reality*, one is reminded of the panoramic scope of Piaget's description of the development of thinking. Sugarman tackles the formidable task of exegesis in heroic fashion, and she succeeds on her own terms. She painstakingly analyzes Piaget's early works, pointing out that Piaget contradicted himself in fundamental ways, that he made arbitrary claims about connections among his constructs, that his a priori assumptions were not necessarily true, that his results and methodology did not necessarily test his theoretical claims, that negative observations (a child's apparent failure to take others' perspectives, for example) do not necessarily imply positive theses (such as that the child has a special mode of thought that prevents this), and so on. Sugarman constrains the enterprise by limiting herself to Piaget's data, by assuming for the sake of argument that the data are essentially correct, by excluding other data gathered in the 50 years or so since the works were published (20 or 30 years since their translation into English), and by excluding from consideration other theoretical analyses of Piaget's work. Instead, she concentrates on

logical coherence within the theory. Piaget's logical inconsistencies are so numerous and profound that they provide much grist for the critical mill. Sugarman performs a sympathetic and thorough analysis and is mostly correct in her assertions about Piaget's shortcomings.

It is noteworthy that Sugarman has reached the same bottom line about Piaget's approach as other analysts before her, although the specific debits and credits differ. Those not convinced by earlier critiques are encouraged to read this one. However, her assessment of the current state of the psychology of cognitive development, and of Piaget's role in it, seems wildly distorted. Beyond the small circle she refers to, there are many theorists who have departed radically from the Piagetian perspective. Sugarman asserts that these thinkers are nevertheless "bound to some of the same problematic assumptions that Piaget made" (p. 241), such as the continuity in development from childhood to adulthood. That particular assumption has more to do with Occam than with Piaget. However, to persist in a theory that fails to capture subtle discontinuities is to be simpleminded rather than simple. It remains for Sugarman to demonstrate some connection between Piaget and specific occurrences of such simplemindedness.

In general, Sugarman appears to misapprehend the influence of Piaget in current work. First, she treats moribund constructs equally with viable ones. Second, she devotes much analysis to empirical phenomena that modern techniques indicate are probably nonexistent. Such an endeavor would be useful (for reasons other than historical) to the extent that it made contact with current thinking. Sugarman dismisses the fading of Piaget's persona from the modern stage as mere illusion. However, if Piaget continues to influence cognitive developmental psychology subliminally, she must make these effects manifest. In the absence of references to recent research and theory, she has failed to position her work convincingly in the context of contemporary research.

Most critical surveys begin with a review of the target theory, followed by a critique, which in turn is followed by the author's spelling out the implications of his or her analysis. Typically, increasing emphasis is given to these three components. Sugarman has chosen to spotlight Piaget and to touch only glancingly on the implications of her approach. She does not develop alternatives but delivers a litany of "it could be," "it is not necessarily the case that," and similar open-ended claims. We are left with a plethora of logical possibilities but little guidance regarding what is psychologically plausible. Inevitably, when the only criteria are logical,

we find ourselves entertaining exotic possible worlds (for example, ones in which intentionality is not linked with responsibility) on the same footing with empirically supported relationships.

This book is excellent philosophy, closely reasoned and perceptively argued. Unfortunately, however, the author has set the conditions so that the work falls out of the mainstream of science. In science, current data are never irrelevant. It is incumbent upon the theorist to evaluate the data, separating the good from the bad, in accordance with metatheoretical principles. This is the "due process" of science. To say that one will not consider relevant data, or will accept flawed data for the sake of argument, is to place the enterprise outside the accepted forum of adjudication. Piaget's theory is deep, dazzling, and undomesticated by data, and so is this analysis of it. But interesting ideas can be false. Pure logic is paralyzing because there is no perfect experiment, no experiment that embraces every logical possibility. Each discipline has its susceptibilities. In the psychology of cognitive development, we need to inoculate ourselves against the infinite regress of inordinate philosophizing.

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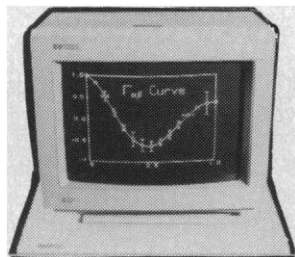
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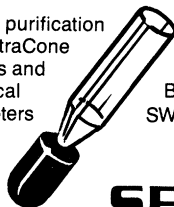
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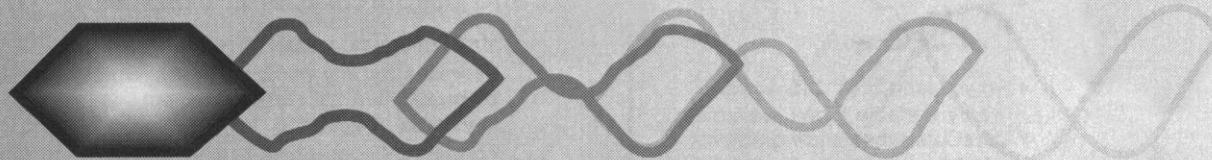
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# 1988

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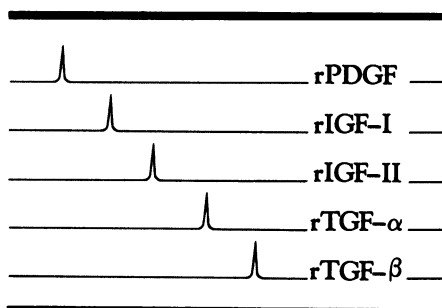
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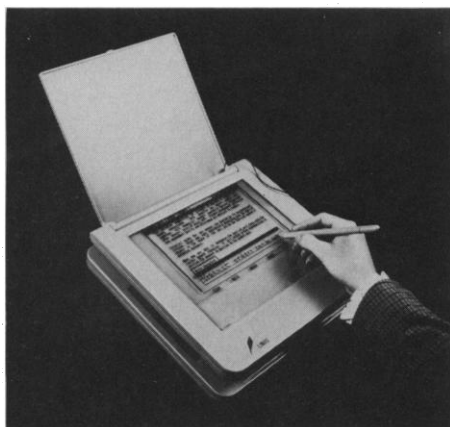
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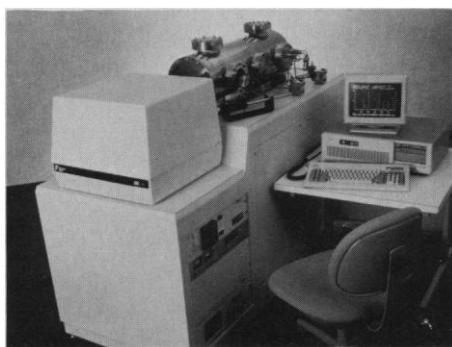
year. The nylon hybridization membrane has a positively charged surface that can bind many human DNA fragments of a wide range of molecular weights. Nucleic acid levels as low as 0.18 pg per fragment can be detected in less than 6 hours. Oncor. Circle 560.

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mable. The user specifies the experimental sequences for the desired analysis on an IBM PS/2 model 30 or a PC-compatible computer. The spectrometer can operate in electron ionization mode or chemical ionization mode and can switch between the two with no change of hardware. Finnegan MAT. Circle 572.

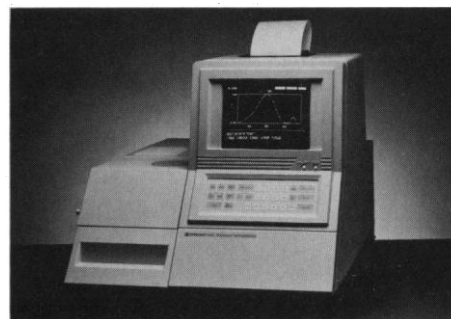
### Protein A HPLC Column

The Gamma-HPAC Protein A Column for high-performance liquid chromatography (HPLC) can complete a separation cycle in 10 min. The affinity matrix in the columns contains protein A coupled to a nonclogging wide-pore 30- $\mu$ m silica solid support. The column is stable at pH 2.0 to 10.5 and is compatible with high-molarity

aqueous chaotropes and organic solvents. Nonspecific binding of proteins, nucleic acids, and lipids to the matrix surface is rare. The column may be reused more than a hundred times. The column comes in sizes of 100 mm by 4.6 mm, 250 mm by 4.6 mm, and 250 mm by 21.6 mm, respectively; these sizes can bind 16, 40, and 750 mg of immunoglobulin G per cycle. Zymed Laboratories. Circle 576.

### Scanning Fluorescence Spectrophotometer

The model F-2000 is a scanning fluorescence spectrophotometer with a horizontal beam and a slew rate of 200 nm/sec. Its 9-



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### Literature

*Miniature Inert Plug Valves & Fittings* is a catalog of valves, fittings, adapters, and valve drivers-positioners. Hamilton. Circle 450.

*Rapid Kjeldahl Methodology* describes a method for determination of nitrogen in water. Labconco. Circle 454.

The *Total Laboratory Control for the 90's* brochure features an integrated system of laboratory air pressurization equipment and fume hoods. Anemostat Systems Group. Circle 455.

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Edited by John R. Fowle III, Office of  
Health Research, U.S. Environmental  
Protection Agency

As new advances in biology permit the development of genetically engineered organisms with commercial applications, tough ethical questions arise. This book discusses current knowledge about levels of risk, information needed to provide assessment data, and ways to proceed along the frontiers of biotechnology. Beginning with a description of the socio-historical context of the subject, the volume addresses — from diverse viewpoints — the relevant scientific and social issues, including the concern over possible environmental release of these new organisms.

\$25.00; AAAS members \$20.00 (include membership number from *Science*). 242 pp., 1987. AAAS Selected Symposium 106.

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**Marine Organisms as Indicators.** Dorothy F. Soule and G. S. Kleppel, Eds. Springer-Verlag, New York, 1988. xii, 342 pp., illus. \$98.

**Marine Symbioses.** Balaban, Rehovot, Israel, 1987. viii, 365 pp., illus. Paper, \$75. *Symbiosis*, vol. 4, nos. 1, 2, 3. From a symposium, Eilat, Israel, Feb. 1987.

**The Mathematical and Physical Modeling of Primary Metals Processing Operations.** Julian Szekely, James W. Evans, and J. K. Brimacombe. Wiley-Interscience, New York, 1988. x, 261 pp., illus. \$49.95.

**Measuring Colour.** R. W. G. Hunt. Horwood, Chichester, U.K., and Wiley, New York, 1987. 221 pp., illus., + plates. \$63.95. Ellis Horwood Series in Applied Science and Industrial Technology.

**Medicine.** Preserving the Passion. Phil R. Manning and Lois DeBaey. Springer-Verlag, New York, 1987. xxviii, 297 pp., illus. \$35.

**Mirage of Health.** Utopias, Progress, and Biological Change. René Dubos. Rutgers University Press, New Brunswick, NJ, 1987. viii, 282 pp. \$25; paper, \$10. Reprint, 1959 ed.

**North America and Adjacent Oceans During the Last Deglaciation.** W. F. Ruddiman and H. E. Wright, Jr., Eds. Geological Society of America, Boulder, CO, 1987. viii, 501 pp., illus. + maps in pocket. \$43.50. *Geology of North America*, vol. K-3.

**Permanent Magnets in Theory and Practice.** Malcolm McCaig and Alan G. Clegg. 2nd ed. Halsted (Wiley), New York, 1987. x, 415 pp., illus. \$84.95.

**The Physiology of Reproduction.** Ernst Knobil and Jimmy D. Neill, Eds. Raven, New York, 1987. 2 vols. xiv, 2413 pp., illus., + index. \$290.

**Planning for Changing Energy Conditions.** John Byrne and Daniel Rich, Eds. Transaction Books, New Brunswick, NJ, 1987. xiv, 300 pp. Paper, \$16.95. *Energy Policy Studies*, vol. 4.

**Running with the Fox.** David Macdonald. Facts on File, New York, 1988. 224 pp., illus. \$23.95.

**Smallpox and its Eradication.** F. Fenner et al. World Health Organization, Geneva, 1988. xvi, 1460 pp., illus. \$150.

**The Social Construction of Literacy.** Jenny Cook-Gumperz. Cambridge University Press, New York, 1986. x, 248 pp. \$37.50; paper, \$13.95. *Studies in Interactional Sociolinguistics*, vol. 3.

**The Social History of American Education.** B. Edward McClellan and William J. Reese. University of Illinois Press, Urbana, IL, 1988. x, 370 pp. \$34.95; paper, \$11.95. Articles reprinted from the *History of Education Quarterly*.

**Solvable Models in Quantum Mechanics.** Sergio Alberverio et al. Springer-Verlag, New York, 1988. xiv, 452 pp. \$79. Texts and Monographs in Physics.

**State of the World, 1988.** A Worldwatch Institute Report on Progress Toward a Sustainable Society. Lester R. Brown et al. Norton, New York, 1988. xviii, 237 pp. Paper, \$9.95.

**Statistical Models of the Temperature and Gas-Phase Components of the Atmosphere.** V. E. Zuev and V. S. Komarov. Reidel, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xiv, 306 pp., illus. \$89. Atmospheric Sciences Library. Translated from the Russian.

**Structural Equation Modeling with LISREL.** Leslie A. Hayduk. Johns Hopkins University Press, Baltimore, MD, 1988. xviii, 405 pp., illus. \$37.50.

**Toxic Substances and Human Risk.** Principles of Data Interpretation. Robert G. Tardiff and Joseph V. Rodricks, Eds. Plenum, New York, 1987. xiv, 445 pp., illus. \$65. Life Science Monographs.

**Transient Criminality.** A Model of Stress-Induced Crime. Anthony R. Mawson. Praeger (Greenwood), New York, 1987. xii, 335 pp., illus. \$45.

**Translational Regulation of Gene Expression.** Joseph Ilan, Ed. Plenum, New York, 1987. xxii, 487 pp., illus. \$75.

**Ulysses' Sail.** An Ethnographic Odyssey of Power, Knowledge, and Geographical Distance. Mary W. Helms. Princeton University Press, Princeton, NJ, 1988. xii, 297 pp., illus. \$45; paper, \$14.95.

**Unfoldment and Manifestation.** Seven Essays on Evolution and Classification. L. van der Hammen. SPB, The Hague, 1987. xii, 181 pp., illus. Paper, \$35.

**Winning the Radar War.** A Memoir. Jack Nissen and A. W. Cockerill. St. Martin's, New York, 1988. xiv, 224 pp., + plates. \$19.95.

**Woodland Tradition Economic Strategies.** Animal Resource Utilization in Southwestern Wisconsin and Northeastern Iowa. James L. Theler. Office of the State Archaeologist, University of Iowa, Iowa City, 1987. xii, 136 pp., illus., + appendices on microfiche in pocket. Paper, \$10. Report no. 17.

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The individual will be expected to function as an independent investigator and participate in the training program of the Radiation Oncology Center. Applications should be received by 31 August 1988. Please send curriculum vitae, one or two sample reprints and the names, addresses, and telephone numbers of three references to: Dr. Joseph L. Roti Roti, Section of Cancer Biology, Washington University School of Medicine, 4511 Forest Park Boulevard, St. Louis, MO 63108.

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Two tenure-track appointments are available to candidates with a Ph.D. and/or M.D. who have postdoctoral experience and are strongly committed to a program in the areas of systemic and integrative physiology. Preference will be given to candidates whose research will complement existing programs in cell physiology and biophysics. Teaching responsibilities will require participation in the medical and graduate school courses in areas that relate to integrative respiratory, cardiovascular and/or renal physiology. Please send curriculum vitae, statement of research plan, teaching experience and the names of at least three references to: **Physiology Search Committee, Duke University Medical Center, Box 3709-E, Durham, NC 27710.** *Duke University is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT/ASSOCIATE PROFESSOR DEPARTMENT OF PHYSIOLOGY

Applications are invited for a tenure-track position in the Department of Physiology of the Ohio State University College of Medicine. Individuals with a promising or established investigative program using a cellular/molecular approach to excitability, contractility, or membrane transport are encouraged to apply. Candidates should have a Ph.D., M.D., or equivalent degree, and a minimum of 2 years of postdoctoral experience. The Department has 21 full-time faculty with varied research interests including multidisciplinary interactions in the neurosciences, digestive diseases, and muscle physiology. Send curriculum vitae, a brief description of research interests, the names of four referees and a record of grant funding to: **Bruce A. Biagi, Ph.D., Chairperson, Search Committee, Department of Physiology, 4197 Graves Hall, 333 West 10 Avenue, Columbus, OH 43210.** Applications should be received by 19 September 1988. *The Ohio State University is an Equal Opportunity/Affirmative Action Employer.*

### BIOCHEMICAL TOXICOLOGIST

Northeastern University College of Pharmacy and Allied Health Professions is seeking applicants for a full-time tenure-track position at the level of assistant professor of toxicology beginning 1 April 1989 or 1 July 1989. Candidates will be expected to bring or establish an independent, extramurally funded research program in their area of interest as well as teach to graduate and undergraduate toxicology and pharmacy students. Teaching experience is preferred. Qualifications required are Ph.D. in toxicology or pharmacology with 2 years of postdoctoral experience. Applicants should send curriculum vitae, including relevant reprints and names of three references, to the following address by 14 October 1988. **Dr. Robert A. Schatz, Search Committee Chairman, Toxicology Program, Mugar Hall, Northeastern University, 360 Huntington Avenue, Boston, MA 02115.** *Northeastern is an Equal Opportunity/Affirmative Action Educational Institution and Employer.*

## POSITIONS OPEN

### ASSOCIATE CHIEF OF STAFF/ RESEARCH AND DEVELOPMENT VA MEDICAL CENTER, SAN DIEGO, CALIFORNIA

The San Diego Veterans Administration Medical Center (VAMC) is seeking highly qualified candidates for the position of Associate Chief of Staff (ACOS) for Research and Development. The San Diego VAMC is a Dean's Hospital fully affiliated with the University of California, San Diego School of Medicine. The successful candidate will be appointed on the full-time faculty at the appropriate academic rank in the appropriate Department. The primary function of the position is administration of the Medical Center's R&D Program which includes assisting investigators in all administrative, scientific, and technical matters pertaining to the conduct of their research. It is essential that candidates for the position be nationally recognized scientists with well established records of research productivity who have received research funding from peer reviewed sources. Candidates should also have significant administrative experience. Familiarity and experience with the Veterans Administration Research Service is desirable, but not essential. Candidates should submit VA application form for physicians (VA Form 10-2850) and curriculum vitae with bibliography and history of all VA and extra-VA research support. Applications should be forwarded to: **Jerrold Olefsky, M.D., Chairman, Search Committee (ACOS/R&D) (111G), VA Medical Center, 3350 La Jolla Village Drive, San Diego, CA 92161.** *The San Diego VA Medical Center and UCSD are Affirmative Action/Equal Opportunity Employers.*

### BIOCHEMISTRY FACULTY POSITION UNIVERSITY OF WISCONSIN-MADISON

The Biochemistry Department, University of Wisconsin-Madison invites applications for a tenure-track position at the assistant professor level. We are particularly interested in applications from individuals whose research emphasizes chemical approaches to fundamental problems in biochemistry or molecular biology. Potential areas include enzymology, bioorganic chemistry, the chemistry of proteins, nucleic acids, complex carbohydrates, or of low-molecular weight compounds. The successful candidate is expected to develop a vigorous independent research programs and participate in the undergraduate and graduate teaching programs of the department. Applications, including curriculum vitae, list of publications, summary of past work and accomplishments and a statement of plans for future research, should be sent to: **Professor William S. Reznikoff, Chairman, Department of Biochemistry, University of Wisconsin-Madison, 420 Henry Mall, Madison, WI 53706.** In addition, applicants should arrange for three letters of reference to be mailed to the same address. To assure consideration, all application materials should be received by 1 October 1988. *The University of Wisconsin-Madison is an Affirmative Action/Equal Opportunity Employer, and encourages applications from women and minorities.*

### BIOLOGY OPPORTUNITIES SENIOR SCIENTIST SACRAMENTO AREA

Baxter Healthcare Corporation, MicroScan Division, develops and manufactures computer controlled electronic instrumentation and disposables used in the clinical laboratory.

Working in microbiology research, responsibilities will include directing three to four scientists. A Ph.D. in microbiology or related discipline is required; postdoctoral experience in clinical microbiology is highly desirable. Experience with automated identification and susceptibility testing is a plus.

Baxter Healthcare Corporation, MicroScan Division, is a leader in the healthcare industry and we offer excellent salaries and benefits to individuals who qualify for our positions. If you meet these requirements, please send your résumé, stating current salary, to:

**Vice President of  
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Baxter Healthcare Corporation  
MicroScan Division  
1584 Enterprise Boulevard  
West Sacramento, CA 95691  
Equal Opportunity Employer M/F/H/V.**

## POSITIONS OPEN

### BIOADHESIVES DEVELOPMENT

Genex Corporation, an applied biotechnology company in the Washington, D.C. area, is searching for a highly motivated individual to join our research team in developing protein-based medical and dental adhesives and coatings. The preferred candidate will be an innovative scientist with experience in developing medical or food-grade adhesive products. A strong background in protein chemistry and/or tissue adhesion is highly desirable, but other qualified candidates with related skills are encouraged to apply. Reply to: **Gilbert Tweed Associates, Chemical Search Department, 630 Third Avenue, New York, NY 10017.**

### BIOCHEMISTRY/MOLECULAR BIOLOGY FACULTY POSITIONS UNIVERSITY OF HOUSTON

The Department of Biochemical and Biophysical Sciences invites applications for tenure-track junior or senior faculty positions. Clear evidence of research ability and scholarship are essential requirements. Individuals with expertise in the areas of structural biochemistry and theoretical or experimental molecular biology are preferred. The successful candidates will be expected to maintain an independent, funded research program and to participate in the departmental teaching program. Send résumé, an outline of future research plans, and at least three letters of reference to: **Dr. Joseph Eichberg, Department of Biochemical and Biophysical Sciences, University of Houston, Houston, TX 77204-5500.**

*An Affirmative Action/Equal Opportunity Employer.*

### CELL BIOLOGIST MCGILL UNIVERSITY

The Department of Biology invites applications for a tenure-track position at the assistant professor level, effective 1 September 1989, or earlier. We seek a cell biologist using molecular and/or genetic approaches to study cell structure and function. *Applications are invited from all, although, in accordance with Canadian immigration regulations, applications from Canadian citizens or permanent residents will be considered first.*

Send curriculum vitae, statement of research interests and goals, representative reprints, and three letters of reference to: **Dr. Barid Mukherjee, Chairman, Department of Biology, McGill University, 1205 Avenue Docteur Penfield, Montreal, Quebec, Canada H3A 1B1.** Deadline: 15 October 1988.

### CHAIR CARDIOVASCULAR RESEARCH

The Faculty of Medicine at the University of Alberta is seeking to fill an Endowed Chair funded by the Alberta Heart and Stroke Foundation. The successful candidate will possess an M.D. or a Ph.D. degree (or both) and have a proven track record in Cardiovascular Research. The search is not limited to any specific area and may include: Cardiology (including epidemiology), electrophysiology, cardiovascular surgery and stroke research.

The Faculty of Medicine has a rapidly increasing research budget which currently exceeds \$32 million. A new research building will be opened this year, and a second facility will be completed in 1989. A Cardiovascular Diseases research group has been established which includes molecular biologists interested in cardiac muscle and physician scientists studying electrophysiology, ischemic injury and perinatal physiology. The Faculty has great strengths in protein chemistry and immunology. The University of Alberta Hospitals is the provincial centre for cardiac transplantation and pediatric cardiology.

While the Endowed Chair is intended for a senior and established investigator at the level of Professor, more junior investigators with excellent track records are also encouraged to apply. The position comes with substantial start-up funds.

Please reply by 31 October 1988 to:

**Dr. Mark J. Poznansky**  
Associate Dean (Research)  
Faculty of Medicine  
University of Alberta  
Edmonton, Alberta  
Canada T6G 2R7

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

5 AUGUST 1988

## RESEARCH ASSOCIATES MOLECULAR BIOLOGY

The Squibb Institute for Medical Research is recognized internationally as a leader in the research and development of novel pharmaceuticals. We have recently established a Molecular Biology Department to study the molecular basis of human cancer. Research in the fields of oncogenes, growth factors and their receptors and genes involved in the control of cell proliferation will be of primary interest. Exceptional opportunities for experienced research associates are available in the following areas:

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<b>BIOCHEMISTRY:</b>	Protein proliferation, 2D-gel electrophoresis immunoblotting, kinase assays.
<b>MOLECULAR BIOLOGY:</b>	Cloning, Southern and Northern blots, plasmid purification.
<b>DNA ANALYSIS:</b>	Oligonucleotide synthesis, DNA sequencing.
<b>HYBRIDOMAS:</b>	Production, characterization and maintenance; protein purification and development and use of antibody-based assays.

Candidates should have a BS or MS degree and a minimum of one year of related research experience.

We can offer an excellent salary and comprehensive benefits package as well as the opportunity to pursue a stimulating and rewarding career. For confidential consideration please submit your resume to: **The Squibb Institute for Medical Research, Human Resources Department 65, P.O. Box 4000, Princeton, NJ 08543-4000.** An equal opportunity employer.



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The successful applicant will have a Ph.D. in Molecular Biology, Cell Biology or related areas and 1-3 years post-doctoral experience. Extensive practical and theoretical knowledge of immunoglobulin gene regulation, sequencing expression and modification as evidenced by publication history is required. Direct experience with the construction of chimeric antibodies is highly desirable.

At CYTOGEN, you'll receive a competitive salary and benefits package. For confidential consideration, please submit resume with salary history and requirements to: **Recruiting Supervisor, Cytogen Corp., 600 College Road East, Princeton, New Jersey 08540.** An equal opportunity employer m/f.

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## POSITIONS OPEN

### CELL BIOLOGIST/ EXPERIMENTAL HEMATOLOGIST

A position is available for a M.D./Ph.D. at the assistant professor level with training in cell biology or experimental hematology to join a multi-disciplinary approach to understanding cellular sensitivity and resistance to lymphokines and cytokines as well as the studying of the interactions of lymphokines and cytokines at the cellular, biochemical, and molecular levels.

For further information, please call: **Jordan U. Guterma, M.D.** at 713-792-2676 or write to the address below:

The University of Texas  
M.D. Anderson Cancer Center  
Department of Clinical Immunology  
and Biological Therapy/Box 41  
1515 Holcombe Boulevard  
Houston, TX 77030

*Equal Employment Opportunity/Affirmative Action*

### CHAIR, DEPARTMENT OF BIOCHEMISTRY

The School of Medicine of the University of North Carolina at Chapel Hill (UNC-CH) is searching for an individual committed to academic excellence to provide professional and administrative leadership for the research and teaching programs of the Department of Biochemistry. The department has excellent facilities, research programs and graduate students, and strong collaborative relationships with other departments, research centers and institutes within the University. Other research-intensive institutions in the Research Triangle Park enhance the scientific environment. The University is committed to excellence in modern biochemical and molecular sciences. Preference will be given to candidates who reply before 3 October 1988. Reply with curriculum vitae and a list of at least three references to: **P. Frederick Sparling, M.D., Chair, Search Committee for Chair of Department of Biochemistry, Office of the Dean, The School of Medicine, CB #7000 MacNider Building, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7000.** Women and minorities are encouraged to identify themselves voluntarily. UNC-CH is an Equal Opportunity/Affirmative Action Employer.

### CHAIRPERSON DIVISION OF BASIC PHARMACEUTICAL SCIENCES COLLEGE OF PHARMACY XAVIER UNIVERSITY OF LOUISIANA

Full-time, tenure track 12-month appointment at the associate or full professor level. The Division includes faculty from the disciplines of medicinal chemistry, pharmacology and pharmaceuticals. Applicant must have Ph.D. in basic pharmaceutical sciences with an excellent track record in teaching and research. The individual is expected to participate vigorously in research, provide leadership in developing a graduate program and participate in undergraduate teaching. Submit curriculum vitae, a list of three references and salary expectations by 31 August 1988 to: **Dr. Vimal Kishore, Chairman of the Search Committee, College of Pharmacy, Xavier University of Louisiana, New Orleans, LA 70125.** Xavier University, a predominantly Black Catholic-affiliated University, is an Affirmative Action/Equal Opportunity Employer.

**CLINICAL PATHOLOGY.** The Department of Pathology at the University of California, Los Angeles (UCLA) School of Medicine has **JUNIOR FACULTY POSITIONS** available in hematopathology and microbiology beginning on or after 1 January 1989 and clinical chemistry/toxicology-therapeutic drug monitoring and transfusion medicine beginning 1 July 1989. Qualifications include an M.D. degree, certification in clinical or specialty pathology or equivalent experience, demonstrated research ability and potential for the development of an independent research program. Applications including curriculum vitae, summary of research interests, and names and addresses of four references should be sent to: **P. A. Cancilla, M.D., Chairman, Department of Pathology, UCLA School of Medicine, Los Angeles, CA 90024-1732.** UCLA is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.

## POSITIONS OPEN

### CHAIR DEPARTMENT OF PLANT PATHOLOGY

The Department of Plant Pathology, North Dakota State University invites applications for the position of Chair of the Department. The department consists of 17 faculty, 17 professional and support staff and 15 to 20 graduate students. The department is active in teaching, research and extension with strong interdisciplinary programs. Interested persons should contact: **Dr. Berlin Nelson, Chair, Search Committee, Department of Plant Pathology, North Dakota State University, Fargo, ND 58105-5012. Telephone: 701-237-7057.** Application closing date is 1 October 1988 or thereafter until the position is filled. *NDSU is an Equal Opportunity Employer.*

**CHAIRPERSON, DEPARTMENT OF EPIDEMIOLOGY,** School of Medicine, University of California, San Francisco (UCSF). Qualified candidates are invited to apply. Applicants should submit curriculum vitae, bibliography, and the names of four references to: **Professor Henry R. Bourne, Chairman, Search Committee for Department of Epidemiology Chairperson, c/o Ms. Valli McDougale, Dean's Office, School of Medicine, S-224, University of California, San Francisco, CA 94143-0410.** UCSF is an Affirmative Action/Equal Opportunity Employer. Women and minorities are urged to apply. Applications should be received by 30 November 1988.

**DEPARTMENTAL ADMINISTRATOR.** Assist in development and implementation of departmental policies and procedures; plan and supervise fiscal management, budget, and administrative activities; supervise support staff; maintain or establish procedures for data processing and computer management of departmental funds, inventory, personnel, and service facilities. Required: Bachelor's degree in a biological science or an equivalent combination of education and experience, 3 years of administrative experience in a university setting, reasonable knowledge of accounting applications. Desired: Ph.D. with 2 years of experience as a biological science faculty member, experience with research grant writing and laboratory research methods and procedures. Send curriculum vitae and names of references to: **Personnel Office, 110 Nisbet, Michigan State University, East Lansing, MI 48823-1229.** Refer to position #S839. MSU is an Affirmative Action/Equal Opportunity Institution.

### DEPUTY DIRECTOR RESEARCH AND COLLECTIONS PROGRAMS LOS ANGELES COUNTY MUSEUM OF NATURAL HISTORY

The Los Angeles County Museum of Natural History is recruiting to fill its position of Deputy Director Research and Collections Programs. The position will have overall responsibility for supervision of the research and collections programs relating to earth sciences, life sciences, history, and the research library and publications sections of the Museum.

The position requires a doctoral degree in the field of earth sciences, life sciences, or American history from an accredited university, and 8 years of experience in field and laboratory research, publication administration, grant writing and development, teaching at the college or university level, and public program development with demonstrated experience in translating new knowledge into public understanding of scientific research.

Salary: Commensurate with experience.

Applications should be mailed to:

Director's Office  
Los Angeles County Museum of Natural History  
900 Exposition Boulevard  
Los Angeles, CA 90007

**ECOLOGY POSITIONS** for long-term ecosystems research. Project Coordinator: ecological training, administrative experience. Data Manager: data management, programming, GIS experience. Laboratory Director: analytical chemistry background. Field Technicians (two): ecological background. Start: 15 October 1988. Send letter, résumé, and telephone numbers of references to: **Dr. James Gosz, Department of Biology, University of New Mexico, Albuquerque, NM 87131.** UNM is an Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### EDITOR (CHEMISTRY/MATH)

Chicago-based multi-national publishing company seeks an experienced editor to review, evaluate, and edit articles in the fields of chemistry and related sciences and mathematics. The successful candidate will have a college degree in chemistry, or in mathematics with a strong chemistry minor, and a minimum of 2 years of editing experience, preferably with reference or academic publications.

We offer a competitive compensation and benefits package. Please forward your résumé and salary history in confidence to: **Box 126, SCIENCE.**

Columbia University, Department of Psychology, announces two **FACULTY OPENINGS** in the general area of Social-Personality Psychology. One position is at the level of tenured associate or full professor, the other is for a recent Ph.D. at the assistant professor level. For the senior position, we seek a person with an established record of significant scientific accomplishment. For the junior position, we seek an individual who has demonstrated exceptional promise for excellence as a scholar-scientist. Successful applicants for both positions must also be excellent teachers at the undergraduate and graduate levels. Applicants should submit their curricula vitae and the names and addresses (only) of at least three individuals willing to write letters of recommendation to: **Personnel Search Committee, Department of Psychology, Schermerhorn Hall-Box 29, Columbia University, New York, NY 10027.** Applications from members of minorities and women are encouraged. Columbia University is an Affirmative Action/Equal Opportunity Employer.

### FACULTY POSITION IN MACROMOLECULAR STRUCTURE

The Department of Biological Chemistry at Washington University School of Medicine is seeking candidates for a tenure-track position as assistant professor. We are particularly interested in candidates with x-ray crystallographic, molecular dynamics, and/or NMR experience. An area detector, computational facilities, graphics systems and start-up funds will be available for crystallographic work. Candidates must have had postdoctoral experience. Interested applicants should send curriculum vitae and the names of three references to: **Dr. Carl Frieden, Department of Biological Chemistry, Washington University School of Medicine, 660 South Euclid Avenue, Box 8094, St. Louis, MO 63110.** Affirmative Action/Equal Opportunity Employer.

### FACULTY POSITIONS DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY THE UNIVERSITY OF CHICAGO

The Department of Biochemistry and Molecular Biology at The University of Chicago wishes to invite applications and nominations for several tenure-track or tenured faculty positions to be filled within the next few years. It is hoped that at least two positions will be filled in the 1988 to 1989 academic year. Candidates should have a doctoral degree, significant postdoctoral research experience, a strong record of research accomplishment, and demonstrable potential for the development of an independent research career in an academic setting. We are seeking individuals with research interests in any area of modern biochemistry and molecular biology, including nucleic acid biochemistry, protein-nucleic acid interactions, DNA replication and transcription, membrane and cell biochemistry, molecular endocrinology, transmembrane signaling, physical biochemistry, structural biology, and molecular structure and dynamics. Applications should include curriculum vitae, a list of publications, a summary of current research activities and future research plans, and the names of at least four individuals from whom letters of reference may be solicited. While we have no formal deadline, we would appreciate receiving applications by 15 October 1988. Please send applications or nominations to:

Marvin W. Makinen  
Department of Biochemistry and Molecular Biology  
The University of Chicago  
920 East 58th Street  
Chicago, IL 60637

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## POSITIONS OPEN

### FACULTY POSITION IN BIOCHEMISTRY AT THE UNIVERSITY OF NEBRASKA MEDICAL CENTER

The Department of Biochemistry of the University of Nebraska Medical Center at Omaha is seeking a qualified individual to fill a tenure-leading assistant professor position. All applicants should hold a Ph.D. in biochemistry or a related discipline and should have postdoctoral experience in structural biology. Salary will be commensurate with education and experience. We are primarily interested in an individual who will be able to set up a research program in protein structure and who will oversee a protein core laboratory. The successful applicant will be expected to develop an independently-funded research program and contribute to building a strong graduate educational program. Please forward curriculum vitae, a statement of research goals, and three letters of recommendation to: **Dr. Edward Bresnick, Department of Biochemistry, The University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, NE 68105.** *The University of Nebraska is an Affirmative Action/Equal Opportunity Employer.*

### FLOW CYTOMETRY LABORATORY DIRECTOR MARY BABB RANDOLPH CANCER CENTER WEST VIRGINIA UNIVERSITY HEALTH SCIENCES CENTER

Applications are invited for Director of the Flow Cytometry Laboratory of the Mary Babb Randolph Cancer Center. Extensive training and experience with flow cytometry systems is required. Appointment will be on the non-tenured professional track. Continued independent research will be encouraged. The Cancer Center is a new facility with major commitment to basic research. The flow cytometry core facility will also interface with Health Sciences Center laboratories and is equipped with Becton-Dickinson FACStar-Plus and FACScan instruments.

Applicants should submit their curriculum vitae and arrange for three letters of reference to be sent to: **Dr. Fred R. Butcher, Director, Mary Babb Randolph Cancer Center, WVU Health Sciences Center-North, Morgantown, WV 26506.** Application review will continue until position is filled. *West Virginia University is an Affirmative Action/Equal Opportunity Employer.*

### FOREST TREE MOLECULAR BIOLOGIST

Westvaco Corporation is seeking a scientist to fill a molecular biology position in our Forest Research organization. Building upon a strong conventional tree-breeding program, we are expanding our genetic program in molecular biology and plant transformation technology.

The duties of our molecular biology position are to explore the use of molecular tools to advance our conventional breeding program, especially RFLP's to fingerprint germplasm and to study the inheritance of quantitative traits in trees; and to work with our cell and tissue culture scientists to obtain genetic transformations.

We seek an individual actively engaged in plant molecular biology research; with a Ph.D. or postdoctoral experience in plant molecular biology or related fields, with a strong background, training and experience in molecular cloning, RFLP techniques, and plant transformation in technology; has experience working in a research team environment where colleagues are encouraged to be supportive of one another yet individually are expected to do independent research; and with an outstanding record of research accomplishment. In addition, it would be desirable to have experience with woody plants and a plant breeding and genetics background.

This position will be located at our Forest Research Headquarters in Summerville, South Carolina. Summerville lies 20 miles northwest of Charleston. For consideration, please send your résumé, college transcripts, and three letters of recommendation before 16 September 1988 to: **Mr. Ted Bush, Personnel Department, Westvaco Corporation, P.O. Box 1950, Summerville, SC 29484.** *Equal Opportunity Employer M/F.*

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Excellence and achievement in all relevant backgrounds will be considered, particularly experience in physico-chemical characterization of drug substances, isolation and characterization of degradation products, kinetics and mechanism of chemical degradation, skin permeation and diffusion studies, dissolution, strategies for drug stabilization and drug modification for alternative delivery systems, polymer and adhesive chemistry or synthesis, or membrane-based separation technology. ANDA, NDA, and IND experience helpful.

Competitive salaries and benefit packages including relocation.

Send C.V. and/or resume in confidence to:

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## EXECUTIVE OFFICER

# Institute of Medicine

The Institute of Medicine (IOM) is a national institution which addresses matters affecting the advancement of health science and education and the improvement of health care, in conjunction with the National Academy of Sciences (NAS) and the National Research Council (NRC). The IOM is a major resource of expertise and analysis of issues and problems in these areas. It has a staff of approximately 120, including 75 professionals supporting the work of its volunteer committees and national membership of approximately 500.

The Executive Officer implements the policies of IOM's elected officials and the NRC through management of all IOM operations, including scientific, financial, administrative, and membership matters. Through coordination and supervision of Division Directors, the Executive Officer manages IOM's human resources, identifies

emerging problems and opportunities for policy analyses, responds to public and private requests for studies, enforces IOM and NRC policies, and ensures compliance with contracts.

Applicants should have an M.D./Ph.D. or equivalent, preferably in a medical or health science field, and at least 10 years of highly substantive related experience, or MA/MS/MBA/MPA or equivalent and approximately 15 years of experience. Qualifications also include recognized expertise in relevant areas of health care or medicine, demonstrated effectiveness in management of major programs of research or policy analyses, and demonstrated oral and written communication ability with staff and a broad constituency of research, government, academic and committee members.

Applicants are invited to submit a C.V./résumé as soon as possible to Charles H. Starliper, Director of Personnel and Appointments. All responses must be received by September 15, 1988.

**INSTITUTE OF MEDICINE  
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## PROVOST AND VICE—PRESIDENT ACADEMIC AFFAIRS

### WORCESTER POLYTECHNIC INSTITUTE WORCESTER, MASSACHUSETTS

Nominations and applications are invited for the position of Provost and Vice President for Academic Affairs at Worcester Polytechnic Institute, an innovative College of Science and Engineering located in Central Massachusetts with an enrollment of 2,500 undergraduate and 400 full-time graduate students.

Candidates should have an earned Doctorate, a record of excellence in teaching/research/administration, proven academic leadership skills, excellent interpersonal skills, and a commitment to academic excellence. The successful candidate must be eligible to hold a tenured position in one of the College's academic programs.

The Provost and Vice-President for Academic Affairs reports to the President and, as chief Academic Officer of the College, is responsible for monitoring and recommending to the President academic appointments and the granting of tenure and promotion. The Provost is also responsible for the review, development and evaluation of academic policies, standards, and budget.

Letters of application or letters of nomination should be received no later than November 15, 1988, and should be addressed to:

Provost Search Committee  
c/o Human Resources Department  
Worcester Polytechnic Institute  
100 Institute Road  
Worcester, Massachusetts 01609  
EEO/AA

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### Animal Research/Immunology

We are seeking a senior Research scientist to be responsible for starting and directing a new in-house animal research program for the evaluation of our immunoconjugates in mice. The research will include pharmacokinetic, distribution, and toxicity studies with protein drugs in mice and efficacy studies in tumor xenograft models in nude mice. The successful candidate will have a Ph.D. or equivalent degree, preferably in the area of immunology or tumorbiology, and at least two years of relevant post-doctoral or industrial experience. Strong preference is given to scientists who are familiar with the handling of immunodeficient nude mice.

### Cell Biology and Tissue Culture

This position requires an experienced scientist (Ph.D. with at least two years of postdoctoral or industrial research experience) in the field of cell biology and mammalian cell culture. Areas of research include: cytotoxicity and efficacy testing of immunotoxins on cultured cells; mechanisms of intoxication of cells by immunotoxins and natural protein toxins; development and optimizing conditions for culturing cell lines. The candidate must have a desire to carry out independent research while functioning as part of an interdisciplinary research team.

### Biochemistry and Protein Chemistry

Applicants for this position will have a Ph.D. in Biochemistry and at least two years of postdoctoral or industrial experience and will be familiar with analytical and preparative methods for the purification and modification of proteins. The successful candidate will be involved with research and development of immunotoxins and will join an interdisciplinary research team, but will have a strong desire to carry out independent research.

Reply to: Teresa Pechulis, Personnel Department, ImmunoGen, Inc., 148 Sidney Street, Cambridge, MA 02139

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## POSTDOCTORAL FELLOWSHIP

Scientific achievement plays a major role in Allergan's ascent to leadership in eye and skin care products. Our progress has created an opening for a two-year postdoctoral fellowship beginning in August, 1988.

The position provides an opportunity to study leukotriene effects on the retina with initial emphasis on vascular and cellular events. Allergan has modern, well equipped laboratories and a commitment to innovative research. Interaction with our Ocular Inflammation Research Group will provide expansion of technical skills and career growth. Interaction with the academic research community will also be encouraged, and publication of findings in leading scientific journals is expected.

Applicants should possess a Ph.D. in physiology, pathology, pharmacology or a related subject. Previous experience in retinal research would be an advantage. A highly competitive salary and comprehensive benefits package are offered. Assistance for relocation is also available.

Please send your resume to: **D.F. Woodward, Principal Scientist, Discovery Research-LS-OA, Allergan, Inc., 2525 Dupont Drive, Irvine, CA 92715.** Equal Opportunity Employer M/F/H/V.



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## CHAIRPERSON DEPARTMENT OF NEUROBIOLOGY

### Duke University Medical Center

Duke University is seeking candidates for the position of Professor and Chairperson of its newly created Department of Neurobiology. The Department of Neurobiology will occupy space in the newly constructed Joseph and Kathleen Bryan Building for the Neurosciences and most of the faculty will be recruited by the Chairperson. Responsibilities of this position include providing leadership for research and teaching activities in the School of Medicine. The Chairperson will also guide the University — wide graduate and undergraduate Program in Neuroscience. The University is seeking a distinguished neuroscientist who will encourage the development of research programs in cellular, molecular and developmental neurobiology. Minimal qualifications include an earned doctorate in a related discipline, an established research program in neurobiology, administrative experience in an academic environment and a demonstrated ability to work collaboratively in a university medical center and with external constituencies.

This position will be available in the Fall of 1989.

Applicants should send a copy of their curriculum vitae with two references to: **Neurobiology Search Committee, Box 3701, DUKE UNIVERSITY MEDICAL CENTER, Durham, North Carolina 27710.**

**Duke  
University**



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Affirmative Action Employer*

## THE DEPARTMENT OF PATHOLOGY UNIVERSITY OF CALIFORNIA SAN FRANCISCO

is recruiting at the **Assistant or Associate Professor** level for full-time positions with service, research, and teaching responsibilities. The successful M.D. candidates should be Board Certified in Anatomic Pathology, with interest and experience in surgical pathology, cytopathology, or other subspecialty. The positions are designed so that the individuals may have approximately half of their time available to pursue an investigative program. Please send your curriculum vitae to:

**Pathology Search Committee  
Department of Pathology  
University of California  
San Francisco, CA 94143-0506**

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



National Research  
Council Canada

Conseil national  
de recherches Canada

## BIOTECHNOLOGY RESEARCH INSTITUTE

# Research Scientist in Immunology

Biotechnology Research Institute, a division of National Research Council Canada, is a federal research organization committed to pursuing international excellence in biotechnology research. Our industrial mandate promotes close interactions among our own researchers and engineers, and research partners from industry, university and other research centres.

Our 19 000 m<sup>2</sup> facility reflects the multidisciplinary nature of biotechnology; R&D is conducted in biochemical engineering, molecular immunology, genetic engineering and protein engineering.

We are expanding our Molecular Immunology division and have opportunities for outstanding candidates with expertise in molecular and cellular immunology to complement and enlarge the scope of our research activities. Active research programs are already underway focusing on the production of monoclonal antibodies, and T-cell development and activation. Specialized facilities within the Division include:

- **Hybrolima service**
- **Epics 753 cell sorter**
- **Containment facilities**

Positions are available both at the Research Officer and at the Research Associate levels. Interested candidates should possess a Ph.D and some relevant postdoctoral experience. Salary will be commensurate with qualifications and experience.

Please apply in writing before September 30, 1988 (ref. RB86-46), enclose a curriculum vitae, the names and addresses of three referees and a brief outline of proposed research to:

**Dr. Bernard Coupal**  
Director  
Biotechnology Research Institute  
6100 Royalmount Avenue  
Montreal, Quebec  
H4P 2R2

**Canada**

## POSITIONS OPEN

### INTEGRATED PEST MANAGEMENT COORDINATOR—Assistant Professor of Entomology.

The Division of Entomology, University of Idaho, invites applications for the tenure-track position of Extension Integrated Pest Management Coordinator, to be located in Twin Falls, Idaho. A Ph.D. in a plant protection discipline with field experience in interdisciplinary plant protection and extension program development, knowledge of the theory and practice of integrated pest management and crop management, and a strong commitment to agriculture, are required. *In addition, applicants must be U.S. citizens or permanent residents.* Successful candidates should have experience with expert systems and artificial intelligence, and field experience in entomology, plant pathology, weed science, or nematology. The responsibilities include the coordination of state IPM programs in cooperation with an expert support systems analyst, the development and implementation of new extension delivery systems involving database management and computerized decision support systems, and providing leadership for the continuing development and operation of the National Agricultural Pest Information System, a statewide computer-based interagency pest survey and detection program.

Applicants should send a letter of application, curriculum vitae with copies of most recent publications, academic transcripts, and three letters of reference to: **Dr. Marc J. Klowden, Division of Entomology, Department of Plant, Soil and Entomological Sciences, University of Idaho, Moscow, ID 83843. Telephone: 208-885-7546.** The deadline for receipt of applications is 3 October 1988, but may be extended until a qualified applicant is selected.

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

University of Geneva Medical School seeks a **LECTURER IN HUMAN MACROSCOPIC ANATOMY**, tenured position. Requirements: M.D. and demonstrated ability to teach in French. Send curriculum vitae to: **The Director, Department of Morphology, University Medical Center, 1211 Genève 4, Switzerland.**

**MARINE GEOLOGIST/GEOCHEMIST**—The College of Marine Studies, University of Delaware, invites applications for a faculty position in geological oceanography. The position is available immediately and is a 12-month, tenure-track position at the assistant or associate professor level. We are looking for a chemical sedimentologist with interests in the coastal zone and with expertise in stable isotope or organic geochemistry. The successful candidate is expected to collaborate with geologists and oceanographers in other disciplines. Responsibilities will include development of a vigorous research program, graduate-level teaching, and student advisement. Candidates should submit a letter of application describing their research interests and background, current curriculum vitae, and the names and addresses of three references to: **Dr. George W. Luther, III, Search Committee Chairman, College of Marine Studies, University of Delaware, Lewes, DE 19558.** The closing date is 30 September 1988. *The University of Delaware is an Affirmative Action/Equal Opportunity Employer.*

### MOLECULAR GENETICISTS DEPARTMENT OF GENETICS UNIVERSITY OF GEORGIA

The Department of Genetics at the University of Georgia is seeking two molecular geneticists for tenure-track positions available January 1989. The research areas and the academic rank are open. However, individuals interested in prokaryotic molecular genetics, nucleic acid/protein interactions or eukaryotic developmental genetics are especially encouraged to apply. The successful candidates will be expected to pursue active research programs and to teach at the graduate and undergraduate levels. Applicants should arrange to have three letters of recommendation sent to the department. The letters, curriculum vitae, reprints of representative publications, and a statement of research interests should be mailed to: **Dr. Sidney R. Kushner, Head, Department of Genetics, University of Georgia, Athens, GA 30602.** The closing date for applications is 15 October 1988. *The University of Georgia is an Equal Opportunity/Affirmative Action Institution.*

## POSITIONS OPEN

The University of Adelaide South Australia invites applications from both women and men for a tenurable **LECTURESHIP** available immediately in the Department of Botany. The Department wishes to expand knowledge of the biology of native plant populations. It is looking for applicants who are botanists with research interests in floral, population, reproductive or systematic plant biology and a knowledge of the tools of modern molecular biology as applicable to higher plant populations growing under natural and preferably low-rainfall conditions. The appointee will be expected to participate in undergraduate and postgraduate teaching and supervision at all levels with an emphasis on the research fields mentioned above. The successful applicant will be expected to initiate research programs within these specific areas, and to interact with other members of staff within the Department as well as other research institutions. Qualifications and experience: applicants must have an appropriate higher degree. Postdoctoral research and university teaching experience are desirable. Further information may be obtained from: **Dr. F. A. Smith, Chairman of the Department of Botany, telephone: 61-8-228-5280.** Annual salary: AUS\$29,842 × 7 to \$38,932. *It is University policy to encourage women to apply for consideration for appointment to 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 where this is necessary for the care of children.*

Applications in duplicate, quoting reference number 1667, giving personal particulars (including whether candidates hold Australian permanent residency status), résumé and names and addresses of three referees should reach: **The Registrar, University of Adelaide, GPO Box 498, Adelaide, South Australia, 5001, Telex UNIVAD AA 89141** not later than 16 September 1988. *The University is an Equal Opportunity Employer.*

### MOLECULAR BIOLOGIST

The Department of Biomedical Research and the Division of Hematology/Oncology at St. Elizabeth's Hospital of Boston, Tufts University School of Medicine, is seeking a full-time staff member with expertise in molecular biology. The applicant must have an established research productivity with funding by NIH or show significant promise in career development. Both Ph.D. or M.D. candidates are eligible. For M.D. candidates, opportunities are available to participate in patient care and teaching. In addition to development of his own research area, applicant will be expected to serve as a departmental resource in collaborative studies and participate in a postgraduate research training program. Academic appointment is at the level of assistant or associate professor, depending on the qualifications.

Both the Department of Biomedical Research and the Division of Hematology/Oncology are closely integrated, comprised of a staff of basic and clinical scientists with expertise in biochemistry, cellular and molecular biology with primary areas of interest being blood cell membranes. Up to 1,600 square feet of laboratory and office space in newly constructed research laboratories as well as seed funds for further research development are available.

Applicants should send their curriculum vitae, summary of their academic goals and representative reprints to: **Jiri Palek, M.D., Chairman, Department of Biomedical Research, St. Elizabeth's Hospital of Boston, Tufts University School of Medicine, 736 Cambridge Street, Boston, MA 02135.** *Equal Opportunity Employer.*

### NMR SPECTROSCOPY OF ENZYMES UNIVERSITY OF OXFORD

**POSTDOCTORAL POSITION** available for work on structure of enzyme-intermediate complexes using solution-state and solid-state NMR spectroscopy. Experience in biological NMR spectroscopy, ideally in the solid-state, would be an advantage. The successful candidate will have access to 200-, 250-, 300-, and 500-MHz solution-state NMR machines, a dedicated 400-MHz solid-state NMR spectrometer and a fully equipped protein purification laboratory. Salary in the range £9865 to £11,680, depending on experience. The post is funded for 1 year in the first instance, with a possibility of renewal. Send applications, together with the names and addresses of three referees to: **Dr. Jeremy Evans, Dyson Perrins Laboratory, University of Oxford, South Parks Road, Oxford OX1 3QY, United Kingdom. (Telephone: 011-44-865 275651)**

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

## POSITIONS OPEN

### MOLECULAR BIOLOGIST

Enzo Biochem, Inc. is seeking a Ph.D. in molecular biology with experience in nucleic acid hybridization, cloning and probe development, and detection signal amplification. Postdoctoral training preferred. Send curriculum vitae to:

**Enzo Biochem, Inc.  
325 Hudson Street  
New York, NY 10013  
Attention: M.B.**

**NEUROPEPTIDES/GROWTH FACTORS—POSTDOCTORAL POSITION.** A fully funded postdoctoral position is available immediately to study the molecular biology of the bombesin-like peptides. Projects include cloning the bombesin receptor and characterizing the regulation of bombesin gene expression in neoplastic cell lines. Candidates should have experience in cell biology, molecular biology, or electrophysiology. Send curriculum vitae and names of references to: **Dr. Eliot Spindel, Division of Genetics, Thorn-917, Brigham & Women's Hospital, 75 Francis Street, Boston, MA 02115.**

### NEUROSCIENTIST

Applications are invited for a position as assistant professor (contingent appointment) in the Department of Physiology and the Spinal Cord Research Centre at the University of Manitoba Faculty of Medicine and the Winnipeg Health Sciences Centre. Candidates should have a Ph.D. or equivalent and postdoctoral training, be eligible for a Medical Research Council Scholarship Award, and be able to establish a strong research program. Preferred areas of interest include neuropharmacology, tissue slice or neuron culture methodology, molecular biology of neurons, growth and development of the central nervous system, plasticity, regeneration, and transplantation. Experience in graduate and undergraduate teaching would be an asset. Primary appointment would be in the Department of Physiology. Send curriculum vitae, an outline of future research plans, and arrange for three letters of reference to be sent to: **Dr. H. G. Friesen, Professor and Head, Department of Physiology, The University of Manitoba, Winnipeg, Canada R3E 0W3.** Deadline for receipt of applications is 15 October 1988. *Both women and men are encouraged to apply. In accordance with Canadian Immigration, priority will be given to Canadian citizens and permanent residents of Canada.*

**OCEANOGRAPHER/MARINE MAMMALOGIST.** The School for Field Studies (SFS) is looking for a Field Director for its semester and summer undergraduate programs in marine mammalogy and ecology in Hawaii. Duties: direct academic programs and research, recruit faculty and develop site. Requirements: Ph.D. and field research in relevant marine systems; management and university teaching experience. Salary: competitive with benefits. This year-long position starts September 1988 with potential for permanent appointment. Please send curriculum vitae and three references to: **Dean, SFS, 376 Hale Street, Beverly, MA 02138.**

### ORTHODONTICS— UNIVERSITY OF WASHINGTON

A full-time, tenure-track position is available at the **ASSOCIATE PROFESSOR OR PROFESSOR** level on 1 January 1989. Responsibilities include conducting research, teaching basic science at the graduate level, and developing research projects with graduate students. Candidates must have received a Ph.D. in a basic science. Relevant areas of study may be craniofacial development, musculoskeletal physiology, mechanisms of tooth and jaw movement, among others. Criteria for selection include proven ability to attract grant funding and a desire to develop clinical relevance from basic science research. Salary is commensurate with rank and qualifications. *The University of Washington is an Equal Opportunity Employer. Females and minorities are encouraged to apply.* Send curriculum vitae and support data to: **Dr. Vincent G. Kokich, Department of Orthodontics, SM-46, School of Dentistry, University of Washington, Seattle, Washington 98195.** Deadline for applications is 1 November 1988.

## R & D Opportunities

Baxter Healthcare Corporation, MicroScan Division, develops and manufactures computer controlled electronic instrumentation and disposables used in the clinical laboratory. Research involves systems dealing with rapid identification and susceptibility testing.

### Manager of Formulation Development

Successful candidate will be responsible for our formulation development group which concentrates on improving and updating existing products, developing component specifications including HPLC assays for antimicrobial and trouble-shooting product problems.

Background should include a Ph.D. in Biochemistry, Microbiology or related field with 3-5 years experience in a diagnostic industry or academia. Background in formulation development and development of manufacturing processes is essential.

### Manager/Supervisor Development

Responsibilities include supervision of technical workers including assigning tasks, generating stability data and participating in pilot scale-up production. A BS degree with 5-7 years experience or MS degree with 3-5 years experience or Ph.D. with 1-2 years experience is required. Background in development of manufacturing processes desirable.

### Research Scientist

Responsibilities include carrying out development work, planning and running experiments to support present and new products. A BS degree with 3-5 years experience; MS with 2-3 years experience or Ph.D. with 1-2 years experience in diagnostic/pharmaceutical industry is required.

Baxter Healthcare Corporation, MicroScan Division, is a leader in the healthcare industry and we offer excellent salaries and benefits to the individuals who qualify for our positions. If you feel that you have the skills we need, send your resume, stating current salary to: **Vice President of Human Resources, Baxter Healthcare Corporation, MicroScan Division, 1584 Enterprise Blvd., West Sacramento, California 95691.** We are an equal opportunity employer m/f/h/v.

MicroScan Division

**Baxter**

## Glaxo's Growth Is Your Opportunity

*Glaxo Inc. is not only one of the Top 10 ethical pharmaceutical firms in America, we're also the fastest growing research-oriented company in the country. As such, we can offer exceptional career opportunities, state-of-the-art facilities, and a firm commitment to producing the most effective pharmaceuticals that experience, imagination, and advanced technology can create. Join Glaxo, and apply your knowledge and career ambitions where they'll do you the most good.*

**As part of our continuing growth, Glaxo is expanding its research facilities in Research Triangle Park, North Carolina under the direction of Dr. Pedro Cuatrecasas. This has created opportunities for**

## POSTDOCTORAL FELLOWSHIPS

*These positions, for a period of one to three years, will be available for highly qualified individuals with enthusiasm for drug discovery through basic research in the biological sciences. Opportunities are available in the following areas:*

- modulation of ion channels
- regulation of DNA replication
- structure/function of protein kinases
- modulation of cell — cell interactions
- regulation of fatty acid metabolism in inflammation
- hormone-receptor signal transduction
- role of free radicals in disease
- molecular and cellular biology of neurodegenerative disorders
- regulation of gene expression in mammalian cell systems
- *in vivo* cardiovascular pharmacology
- role of oncogenes and tumor suppressor genes in neoplastic transformation
- receptor structure elucidation
- regulation of metabolism in diabetes and obesity

*At Glaxo Inc. growth opportunities and up-to-date facilities are complemented by a location (Raleigh-Durham-Chapel Hill) that has excellent resources in close proximity. Further, we reward talent and creativity with an excellent salary and benefits package. Candidates interested in these positions please send curriculum vitae, along with the names of three references, to:*

**Human Resources Dept.  
Job # PF-S**

**Glaxo Inc.**

**P.O. Box 13398  
Research Triangle Park, N.C. 27709**

*(No Phone Calls, Please)*

*No Private Agency Referrals, Please*

*An Equal Opportunity Employer M/F/H/V*

**Paving the way to a healthier world.**





## SEARCH REOPENED

### DIRECTOR, BYRD POLAR RESEARCH CENTER

#### The Ohio State University

The Ohio State University invites applications and nominations for the position of Director of the University's interdisciplinary Byrd Polar Research Center. The Center was formerly known as the Institute of Polar Studies. The candidate should have an outstanding research record in an area such as physical, biological, earth, atmospheric, oceanographic, or engineering sciences, as evidenced by publications, receipts of research grants, and activities in national and international scientific organizations. The candidate should also have demonstrated administrative experience, the ability to work effectively with academic and administrative personnel, and a strong interest in polar research.

The Director will provide leadership for and will coordinate the development of interdisciplinary programs in polar research, and will draw on resources of and be involved with existing programs in the Colleges of Agriculture, Biological Sciences, Mathematical and Physical Sciences, Engineering, Medicine, and Social and Behavioral Sciences. It is expected that the Director will be appointed as a faculty member in one of the associated academic departments.

The Director, who reports to the Vice President for Research and Graduate Studies, will provide active leadership in promotion, direction, and support of research activities of the Center. The principal mission of the Center, as reflected in its substantial 25-year history of activity remains polar research. Newer areas of interest are research information, including archives of polar researchers such as Richard E. Byrd, and popular education about polar and alpine research, including museum displays.

Beginning July 1, 1988, applications and nominations will be considered until the position is filled. The Ohio State University is an Affirmative Action/Equal Opportunity Employer. Nominations and applications should be sent to:

**Kathleen A. Maclean**  
Secretary to the Search Committee  
for Director of the Byrd Polar Research Center  
Office of Research and Graduate Studies  
208 Bricker Hall  
190 North Oval Mall  
Columbus, OH 43210  
U.S.A.

## POSTDOCTORAL FELLOWSHIPS

St. Jude Children's Research Hospital, a large multidisciplinary research institute, has openings for postdoctoral investigators in the basic biomedical sciences. Fellowships are available in molecular genetics, tumor cell biology, pharmacology, biochemistry, immunology, virology & molecular biology and other related disciplines. Specific areas of investigation include proto-oncogenes and growth factors, genetic control of cellular differentiation, biochemical basis of multiple drug resistance in childhood neoplasms, regulatory properties of viral proteins, macrophage immunobiology, phospholipid metabolism, and cellular messenger systems. Successful applicants train with internationally recognized preceptors in a fully equipped facility and are given the opportunity to develop as independent investigators. Annual salaries begin at \$22,000 and are commensurate with experience.

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

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

*An Equal Opportunity Employer*

# SJCRH

## RESEARCH SCIENTISTS

The Diagnostic Systems R&D Division of our Medical Products Department has several research positions available in our Immunopharmaceutical R&D group in Billerica, MA, a suburb of Boston.

### Radiobiologist

This position is responsible for the design and implementation of experiments to determine the radiation dose delivered by radiolabeled monoclonal antibodies to tumors and other organs. Qualifications include a PhD in radiobiology, radiation physics or pharmacology plus a minimum of 2 years of experience with radiodosimetry, M.I.R.D. and animal tumor models.

### Inorganic Chemist

This position is responsible for the design, synthesis and characterization of inorganic coordination complexes and the development of chelators to attach metallic radionuclides to biologically important molecules. Qualifications include a PhD in inorganic chemistry plus synthetic experience.

**For consideration, please send resume with references to Leslie Greenfield, The DuPont Company, 331 Treble Cove Road, North Billerica, MA 01862. An Equal Opportunity Employer.**



## DIRECTOR

### Lawrence Berkeley Laboratory

### University of California,

### Berkeley, California

The President and The Regents of the University of California invite nominations and applications for the position of Director of the Lawrence Berkeley Laboratory of the University of California at Berkeley, California. The appointment will be effective on July 1, 1989, or at such later time as is mutually agreeable to the appointee and the University.

The Laboratory was established in 1931, and is adjacent to the University of California, Berkeley campus. It is a multi-program laboratory operated by the University under contract with the Department of Energy. The Laboratory has 12 scientific and engineering divisions, which perform basic and applied science in energy-related fields as well as disciplinary research in the physical, life, and geo-sciences. Some 200 of the staff have joint appointments with the Berkeley campus, and a large component of the research is done by UCB undergraduate and graduate students and by post-doctoral appointees. All of the research done at the Lawrence Berkeley Laboratory is unclassified.

The Director is responsible for the management of the Laboratory and reports to the President of the University. Within University policy, the Director exercises broad delegated powers in the overall administration of the Laboratory, which employs approximately 3,400 staff members, including part-time students, and has a current annual budget of \$220 million.

The chief responsibility of the Director is the management of the Laboratory's programs. This includes defining their technical scope, negotiating their funding level with federal officials in the executive branch, and ensuring that they are executed with the highest quality. In addition to this programmatic role, the Director is responsible for the institutional health of the Laboratory through stewardship of its human and physical resources.

Candidates should have demonstrated administrative experience in the conduct of the affairs of substantial organizations and should have an extensive scientific and technical record.

Applications, accompanied by current resume, and nominations may be sent to

**The President**  
**714 University Hall- LBL**  
**University of California**  
**Berkeley, California 94720**

and should be received no later than September 5, 1988, to be given full consideration

**AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER**

## ADJUNCT ASSISTANT PROFESSOR

Assistant Research Professor to initiate or continue independent research program in any area of molecular or cellular physiology. Active well-equipped department will provide space, start-up funds. Reply to: **Harvey R. Weiss, Ph.D., Acting Chairman, Department of Physiology and Biophysics, UMDNJ-Robert Wood Johnson Medical School, (S), 675 Hoes Lane, Piscataway, NJ 08854-5635.**

The UMDNJ is an Affirmative Action/  
Equal Employment Opportunity Employer M/F/H/V.



## STRATEGIC PLANNING/ NEW BUSINESS DEVELOPMENT Diagnostic Products

Amersham Corporation, a leading international supplier of molecular biology, biomedical and medical diagnostic products to the research and medical communities, has an immediate need for an ASSISTANT MANAGER due to expansion.

As part of our Strategic Planning/New Business Development team, you will be responsible for seeking out and developing new business opportunities in the *in vivo* and *in vitro* medical diagnostic market. 25% overnight travel is necessary to identify and develop potential strategic partners throughout the U.S. and to attend professional meetings. The ideal candidate will possess an M.S. or Ph.D degree in a life science, previous experience in the research and development of diagnostics, and marketing experience in the industry. Familiarity with current diagnostic products and technologies is critical; a strong instrumentation background would be an asset.

We are offering a highly professional work environment, an excellent starting salary, and an attractive benefits package, including dental insurance, savings/profit sharing, and tuition reimbursement. For prompt consideration please submit your resume with your salary requirements in confidence to:

Employment Supervisor  
**AMERSHAM CORPORATION**  
2636 S. Clearbrook Dr.  
Arlington Heights, IL 60005

**Amersham**

Equal Opportunity Employer M/F

**I**mmuLogic is a growing company dedicated to the creation of novel therapeutic products which modulate the human immune system. We are employing state-of-the-art techniques and proprietary knowledge in immunology, biochemistry, and molecular biology to develop products in the vaccine, allergy, and autoimmune disease areas. We have already assembled an outstanding scientific and management team and are presently seeking an individual to act as:

## DIRECTOR OF MOLECULAR BIOLOGY

The Director of Molecular Biology will lead a research group, the focus of which will be guided by the goals of ImmuLogic. In addition, he/she will be encouraged to pursue an independent program consistent with his/her research interests. The director will play a vital role in the organization, planning, and development of all of the molecular biological programs within ImmuLogic. The position will be based in our Cambridge, Massachusetts headquarters, but strong interaction with scientific teams in our Palo Alto, California research unit is also envisaged.

We are seeking an individual with an outstanding record of productive research in molecular biology. A minimum of 8-10 years of professional experience and accomplishment combined with strong interaction and management skills within an academic or industrial setting are crucial requirements for the position.

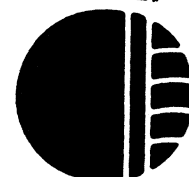
ImmuLogic provides an outstanding working environment with state-of-the-art laboratory facilities in Cambridge, Massachusetts. We have a dedicated team of innovative scientists already in place, a strong and experienced management group, and an outstanding support network of academic advisors and collaborators. An active Post-Doctoral research program has been initiated and the publication of important research findings is positively encouraged and supported.

This position has an attractive remuneration and benefits package including substantial equity participation through stock options.

Please send curriculum vitae and list of publications and/or resume to:

**ImmuLogic Pharmaceutical Corporation**  
One Kendall Square, Building 600  
Cambridge, MA 02139  
Attn: Human Resources Department

**IMMULOGIC**  
Pharmaceutical Corporation



## POSITIONS OPEN

University of California, Los Angeles (UCLA)—**PEDIATRIC ENDOCRINOLOGIST**. Department of Pediatrics/Endocrinology accepting applications for tenure-track professor. Candidates should be certified or eligible for certification in pediatrics and pediatric endocrinology with a strong commitment to basic laboratory research at the tissue, cellular or molecular level. Additional responsibilities include patient care, education of housestaff and fellows, and development of a competitive research program in pediatric and/or adolescent endocrinology.

Applications including curriculum vitae, summary of research, and names/addresses of two references to: **Barbara Lippe, M.D./Chief, UCLA Pediatrics/Endocrinology, 405 Hilgard Avenue, Los Angeles, CA 90024-1752. UCLA is an Equal Opportunity/Affirmative Action Employer.**

## PLANT MOLECULAR BIOLOGIST/GENETICIST

Tenure-track faculty position for a plant molecular biologist/geneticist with experience in gene cloning and ancillary techniques. The individual is expected to have a strong independent research program in higher plant molecular biology/genetics, to exert leadership in development of related university programs, to teach specialty courses in this area, and to interact with other faculty and graduate students working with cultivated or wild species. The appointment will begin 1 January 1988. Rank will be appropriate for experience and productivity. The position will be a joint appointment between the departments of Biological Sciences and Plant and Soil Science. Persons interested in this position should send curriculum vitae, a short summary of future research plans, and three references by 15 September 1988 to: **Dr. David B. Knaff, Chairman, Search Committee, Department of Chemistry and Biochemistry, Texas Tech University, Lubbock, TX 79409. An Equal Opportunity/Affirmative Action Employer.**

**PLANT TAXONOMIST:** The Flora of North America has a 2-year postdoctoral position to study Cyperaceae available immediately. The successful candidate will write treatments, assist the editor for this family, and assist authors. Considerable travel to herbaria will be required. This position may be stationed at one of the several herbaria housing major Cyperaceae collections. To apply send curriculum vitae and names of three references to: **Personnel Office, Missouri Botanical Garden, P.O. Box 299, St. Louis, MO 63166-0299. Position will stay open until filled. An Affirmative Action/Equal Opportunity Employer.**

**PLANT TAXONOMIST:** The Missouri Botanical Garden has a position open for a plant taxonomist to coordinate the U.S. component of a project to revise and translate the *Flora Republicae Popularis Sinicae*. The successful candidate will coordinate activities of the project's Editorial Committee, work with authors and reviewers, and edit manuscripts. Ph.D. in plant taxonomy required; experience working with Eastern Asian plants and knowledge of Chinese desirable; editorial experience highly desirable. Salary commensurate with experience. Send résumé, names of three references, and statement of career interests to: **Personnel Department, Missouri Botanical Garden, P.O. Box 299, St. Louis, MO 63166. An Affirmative Action/Equal Opportunity Employer.**

## POSTDOCTORAL FELLOWSHIP

Applications are invited for a position to begin January, 1989 to study supraspinal control of spinal reflexes. Candidates must have prior experience with neuroanatomical techniques. Send curriculum vitae and three letters of reference by 31 August 1988 to: **Dr. T. Richard Nichols, Department of Physiology, Emory University, Atlanta, GA 30322. Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available now and for summer 1989, at the Dana-Farber Cancer Institute. Appointment in the Department of Medicine, Harvard Medical School. Project to study the regulation of gene expression in human endothelial cells, or the production of recombinant von Willenbrand factor protein by mammalian cells. Send a brief statement of interests, the names of references and curriculum vitae to: **Dr. Dennis C. Lynch, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.**

## POSITIONS OPEN

University of Michigan: Unexpected immediate opportunity for **POSTDOCTORAL FELLOW** with synthetic or organometallic chemistry background to refine radiometal labeling of monoclonal antibodies. Well-equipped laboratory with multidisciplinary environment. Ideal position for the chemist desiring to apply chemical solutions to biological systems. Position is NIH-funded and applicants must be U.S. citizen or permanent resident. Please send curriculum vitae with name of two references to: **Richard L. Wahl, M.D., Division of Nuclear Medicine, University of Michigan Medical Center, Ann Arbor, MI 48109-0028. The University of Michigan is a non-discriminatory, Affirmative Action Employer.**

## POSTDOCTORAL FELLOWSHIP POLICY ANALYSIS OF ENVIRONMENTAL STANDARDS

Occupational and environmental standards for toxic chemical are based upon human health as well as the feasibility in achieving particular exposures or emissions. The risks and costs which are inherent in a standard depend largely upon the particular assumptions which are implicit in the models of risk and control. The purpose of this project is to identify the assumptions which are inherent in environmental policy. The work will focus initially upon the recent OSHA standard for benzene and will be expanded in an area which suits the interest of the researchers. Quantitative methods of data analysis will be employed. The applicant should possess a doctoral degree in the physical or biological sciences, economics, or law. Experience with data and statistical analysis is highly desirable. Current salary: \$23,196. Application deadline: 15 October 1988. Send résumé and three references to: **Professor Stephen M. Rappaport, School of Public Health, University of California, Berkeley, Berkeley, CA 94720. The University of California is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available to study the molecular basis of neurodegenerative disorders. Experience in protein biochemistry, cell culture, or immunology desirable. Salary guaranteed. Please send curriculum vitae and names of three references to: **Dr. Bruce Yankner, Department of Neurology-Enders 3, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. Telephone: 617-735-6070.**

## PHILADELPHIA, PENNSYLVANIA

**POSTDOCTORAL POSITION**—The Graduate Hospital's Research Department has a position available for someone to study inositol lipid metabolism in intact vascular smooth muscle from normal and hypertensive rats. Training in biochemistry essential. Candidates should send curriculum vitae and the names of three references to: **Edward F. LaBelle, Ph.D., Bockus Research Institute, Graduate Hospital, 19th and Lombard Streets, Philadelphia, PA 19146. Equal Opportunity Employer M/F/H/V.**

**POSTDOCTORAL POSITION** available immediately to use innovative approaches to study molecular aspects of DNA damage and its repair in mammalian and yeast cells. Studies range from biophysical analyses of chromatin folding to DNA lesion mapping in inducible genes and model yeast plasmids. For more information, contact via: **BITNET address SMERDON@WSUVM1**; or send curriculum vitae, and have three letters of recommendation sent to: **Dr. Michael J. Smerdon, Biochemistry/Biophysics Program, Washington State University, Pullman, WA 99164-4660. WSU is an Equal Opportunity/Affirmative Action Employer and Employer. Protected group members are encouraged to apply.**

**POSTDOCTORAL RESEARCH ASSOCIATE** position available to study the properties and regulation at DNA/RNA and protein levels of the copper-dependent amine oxidases and metallothionein of normal and cadmium-perturbed lung tissue. Experience in protein/enzyme chemistry and molecular biology is desired. Send curriculum vitae and three letters of reference to: **Dr. Herbert M. Kagan, Department of Biochemistry, Boston University School of Medicine, Boston, MA 02118. An Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION

Requires Ph.D. with a background in cellular or molecular biology to participate in a project to study the gene regulation in monocytic cells by retinoids. For consideration, send curriculum vitae and three references to: **Kapil Mehta, Ph.D., Immunobiology and Drug Carriers Section, Box 41, University of Texas M. D. Anderson Cancer Center, Houston, TX 77030. Telephone: 713-792-8140.**

**POSTDOCTORAL/RESEARCH ASSOCIATE** position available to study RNA Processing in animal cells and viruses. Background either in biochemistry, microbiology or molecular biology needed. Experience in recombinant DNA technology desirable. Salary negotiable. Send résumé with two names for references to: **Dr. Mary Edmonds, Department of Biological Sciences, University of Pittsburgh, Pittsburgh, PA 15260. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL/RESEARCH ASSOCIATE POSITION IN NEUROSCIENCE** available for 2 or more years to study the distribution, coexistence and regulation of neurotransmitters in visceral sensory neurons of the vagus and glossopharyngeal nerves. Applicant should be a recent Ph.D. Interest in neurotransmitters, cellular neuroanatomy and regulation of autonomic functions is essential. Experience with immunocytochemistry, retrograde tracing, RIA, and/or in situ hybridization histochemistry is desirable. Salary is competitive and commensurate with experience. Send curriculum vitae, description of research interests and the names of three references to: **C. J. Helke, c/o Personnel, Henry M. Jackson Foundation For Advancement of Military Medicine, 4301 Jones Bridge Road, Bethesda, MD 20814.**

### POSTDOCTORAL RESEARCH ASSOCIATE

Position available to study the biochemistry, regulation, and molecular biology of red blood cell membranes and membrane-skeletal proteins. Applicants with experience in protein biochemistry, biological membranes, protein kinases and molecular biology (especially site-directed mutagenesis) are encouraged to apply. Opportunity to join an established group in a well-equipped and active department. A highly competitive salary appropriate to experience will be offered. Send curriculum vitae and names of three references to: **Carl M. Cohen, Ph.D., Chief, Division of Cellular and Molecular Biology, St. Elizabeth's Hospital, 736 Cambridge Street, Boston, MA 02135. Equal Opportunity Employer.**

**POSTDOCTORAL RESEARCH ASSOCIATE POSITION** available to study intermediary metabolism in isolated cells, hepatoma and hepatocytes. Stable and radioactive tracer methods and mathematical modeling techniques will be used. Background in cellular physiology, biochemistry, or experience with GC/MS desired. Position available September 1988. Send curriculum vitae and names of three references to: **Joanne K. Kelleher, Ph.D., Department of Physiology, The George Washington University Medical Center, 2300 Eye Street, N.W., Washington, DC 20037. Equal Opportunity Employer.**

### POSTDOCTORAL RESEARCH ASSOCIATE

Postdoctoral research associate is sought to pursue studies on membrane effects of environmental pollutants. Background in renal physiology/pharmacology and/or toxicology preferred. Send curriculum vitae and names of three references to: **Dr. W. O. Berndt, Conkling Hall, Room 5009, University of Nebraska Medical Center, 42nd Street and Dewey Avenue, Omaha, NE 68105. Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL RESEARCH FELLOW IN NEUROSCIENCES**—Position is available 1 September 1988 at the Department of Neurosciences, University of California, San Diego. Candidates should be recent Ph.D. graduates, preferably with training in neuroanatomy and skills in immunocytochemistry. The project will focus on development and regeneration of the dopaminergic system. Send curriculum vitae and names of three references to: **Fred H. Gage and Clifford Shults, Department of Neurosciences, M-024, University of California, San Diego, La Jolla, CA 92093. The University of California is an Equal Opportunity/Affirmative Action Employer.**



## POSITIONS OPEN

### RESEARCH ASSOCIATE

The Laser and Applied Technology Laboratory, Charlotte Memorial Hospital and Medical Center, invites applications for a full-time research associate position. The position will involve research in cardiovascular applications of lasers. Individuals applying should have previous experience in small animal cardiac surgery, cardiac catheterization, cardiopulmonary bypass perfusion of canines, and the use of lasers. A 2- or 4-year degree in a related field is also required. Salary range \$24,003.20 to \$36,004.80. Interested applicants should submit curriculum vitae and letters of recommendation by 15 September 1988 to:

George Tatsis  
Heineman Medical  
Research Laboratory  
P.O. Box 32861  
Charlotte, NC 28232

*Equal Opportunity Employer*

### POSTDOCTORAL RESEARCH POSITION

available immediately (M.D. or Ph.D.) for research on the intestine: control of intestinal differentiation, cell adhesion to basement membrane, determinants of cell polarity and plasma membrane glycoprotein synthesis, basement membrane synthesis and the roles of vitamin D and A in the control of enterocyte differentiation. Send curriculum vitae, names, and addresses of three references to: Dr. Milton M. Weiser, State University of New York at Buffalo (SUNY), Division of Gastroenterology, Buffalo General Hospital, Kimberly Building, 100 High Street, Buffalo, NY 14203. SUNY is an Equal Opportunity and Affirmative Action Employer.

### POSTDOCTORAL RESEARCH POSITION

available in a department well recognized for its lipoprotein research program. A recent Ph.D. is needed to work on studies of mammalian cholesterol metabolism. Specific areas include cell culture models of lipoprotein metabolism and nutrient effects on apoprotein gene expression. Experience in molecular biology techniques essential. Send curriculum vitae and names of three references to: Edward Fisher, M.D., Ph.D., Department of Physiology and Biochemistry, Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129.

The State of Oklahoma seeks applications for the position of **PRESIDENT**, Oklahoma Center for the Advancement of Science and Technology. Duties include administration of newly created state agency coordination academic-industrial-government partnership in science and technology. Grant finance/research program and public policy experience preferred. Education, thorough understanding of "state-of-the-art" science and technology programs nationally/internationally. Ph.D. required. Salary: \$54,000.

For further details, contact: Mrs. Christine Boulware, Isaacson, Miller, Gilvar & Boulware, 105 Chauncy Street, Boston, MA 02111.

The Department of Chemistry, Yale University, invites applications for a tenured position at the level of **PROFESSOR** in the area of synthetic or bioorganic chemistry. An outstanding, established teacher-scholar is sought whose research interests will complement those of the current staff. The position is to be occupied in the academic year 1989 to 1990.

Applicants should submit curriculum vitae, and a list of publications to: Professor Peter B. Moore, Chair, Senior Search Committee, Department of Chemistry, Yale University, 225 Prospect Street, P.O. Box 6666, New Haven, CT 06511-8118 before 30 September 1988. Yale University is an Equal Opportunity/Affirmative Action Employer.

### RESEARCH ASSISTANT

An immediate opening exists for a research assistant with an M.S./B.S. in biological sciences with relative experience. The laboratory duties involve extraction and detection of catecholamines using electrochemical detection, preparation of plasma membranes, receptor binding assays and vascular smooth muscle contractility. The position is supported by NIH grant recommended for 4 years. Salary: \$1550 per month; 40 hours per week. For consideration send curriculum vitae and names of three references to: Dr. Thomas O. Richardson, Division of Science and Mathematics, Bethune-Cookman College, Daytona Beach, FL 32015.

5 AUGUST 1988

## Research Immunologist

### Our Spirit of Teamwork Fosters a Winning Attitude

American Cyanamid Company's Agricultural Research Division has a long-standing and highly successful commitment to the discovery and development of products to improve worldwide crop and livestock production. We are growing rapidly and currently have an exciting opportunity for a research immunologist in the Immunobiology and Parasitology Group, Animal Industry Discovery at our laboratory and experimental farm complex ideally located near Princeton, New Jersey.

This individual will join an enthusiastic multi-disciplinary team pursuing novel immunological methods of preventing major disease syndromes and parasite infestations. The successful candidate will have the opportunity for both basic and applied research. Opportunity exists to contribute both to our ongoing efforts to elucidate pathophysiology of host pathogen interactions as well as identify and evaluate immunomodulating agents, and to be the initiator of new related research efforts using state-of-the-art techniques and equipment including flowcytometry, monoclonal antibodies, protein purification, and molecular biology. A PhD in immunology or a DVM with graduate training in immunology is preferred. Individuals with appropriate experience and the desire to broaden their career and be recognized for a diversity of scientific achievement are encouraged to apply.

American Cyanamid offers a competitive compensation and benefits package. For prompt and confidential consideration, forward your resume to the Employment Office.



### American Cyanamid Company

Agricultural Research Division  
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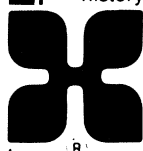
## Manager, Biochemistry Research

Hershey Foods Corporation's Research and Development team has an immediate need for an experienced researcher and manager to fill the newly created position of Manager, Biochemistry Research.

This position reports to the Director of Food Science and Nutrition and will be responsible primarily for managing key research programs in the fields of enzymology, biochemistry and natural products chemistry. Areas of research will include cocoa, milk and other natural food ingredients relating to the Hershey Foods product lines. The Manager, Biochemistry Research will also be responsible for managing the activities of a highly trained and talented research staff.

Candidates must have at minimum a Ph.D. in Biochemistry plus 9-10 years of professional experience which must include research activity in food biochemistry, enzymology and natural products chemistry. Additional requirements include supervisory experience and excellent communication and interpersonal skills.

Hershey Foods offers a modern research facility and challenging work as well as a competitive compensation and benefits package, including relocation assistance. To apply, please forward your resume and salary history to: Human Resources Administration,



## Hershey Foods Corporation

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## POSITIONS OPEN

### RESEARCH ASSISTANT

Fulltime day position available in our Hematology/Oncology Laboratory. M.S. (or B.S. with 5+ years of experience) in immunology, cell biology, molecular biology, cytogenetics, or molecular genetics. Two years+ recent research experience required. Duties to include sample, reagent and culture media preparation, DNA and RNA extraction, synthesis and analysis. Please send résumé to: **Childrens Hospital of Orange County, P.O. Box 5700, Orange, CA 92613-5700.**

The Department of Pharmacology and Toxicology of Virginia Commonwealth University announces the opening of a non-tenure eligible faculty position at the rank of **RESEARCH ASSISTANT PROFESSOR**. Applicants should have a doctoral degree and at least 3 years of postdoctoral teaching experience in the area of immuno/pharmacology in a medical school environment. Candidates should have demonstrated expertise in the field of immunology as well as cell signal transduction mechanisms and pharmacologic manipulations of those systems for the purpose of modulating lymphocyte growth and function. The applicant should also be familiar with immunotherapeutic procedures and lymphocyte function in cancer as well as AIDS. Demonstration of skills utilizing statistical procedures for modeling multi-agent interactions is also advantageous. Candidates should also have demonstrated skills at instructing graduate students and physicians in research techniques involving pharmacologic manipulation of cell signal transduction systems. Emphasis will be placed on candidates with novel ideas as to the investigation of basic mechanisms regulating cell growth and function as well as for developing immunotherapeutic protocols. Job description and applicant qualifications will be sent upon request. Applicants should send curriculum vitae and names of three references to: **Dr. Richard A. Carchman, Department of Pharmacology and Toxicology, Box 613, MCV Station, Richmond, VA 23298-0613 by 31 August 1988.**

*Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

## POSITIONS OPEN

### RESEARCH ASSOCIATE IN NEUROPHYSIOLOGY

Experience in studying nociceptive mechanisms using intracellular and extracellular recording techniques in vertebrates. Potential for independent investigator on Harvard Faculty. Integral role in Pain Program Project. Position available 1 September 1988. Salary commensurate with experience. Send credentials to: **Dr. Charles Poletti, Massachusetts General Hospital, Boston, MA 02114.**

**INO/MIT RESEARCH FELLOW**—The Institute for Naval Oceanography (INO) and the Massachusetts Institute of Technology (MIT) are commencing a cooperative effort in ocean data assimilation, with an emphasis in mesoscale ocean prediction. Small team of researchers in each institution involved with evaluating, enhancing and utilizing primitive equation model developed recently by **Professor Dale Haidvogel**, Johns Hopkins University. We seek a recent Ph.D. scientist to work with these teams. Collaborations include those with scientists from Woods Hole Oceanographic Institution (WHOI) as well as those with Professor Haidvogel. INO/MIT Research Fellow will have career-path with INO, either at Scientist I or II level, depending upon qualifications and experience. In the first few years, the Fellow's times will be divided between MIT and INO; eventually will be fully based at INO. Seeking candidates from physical oceanography, meteorology, applied mathematics, computational physics or related fields. If changing fields, will be possible to attend course in ocean dynamics, numerical ocean modeling, etc. at MIT, which are offered on regular basis. Position is to be filled immediately; please send letter of application, curriculum vitae and three references by 1 September 1988 to: **Mr. Newton J. Spitzfaden, Institute for Naval Oceanography, Stennis Space Center, MS 39529-5005**; inquiries can be made to: **Professor Paola Rizzoli, Massachusetts Institute of Technology, Cambridge, MA 02139. Telephone: 617-253-2451**; or **Dr. Christopher N. K. Mooers, Institute for Naval Oceanography, Stennis Space Center, MD 39529-5005, Telephone: 601-688-3525. An Equal Opportunity Employer M/F/H/V.**

## POSITIONS OPEN

**RESEARCH ASSISTANT PROFESSOR: MOLECULAR BIOLOGY.** The University of Southern California School of Dentistry is accepting applications for a full-time position involving research and teaching at the graduate/specialist level. Minimum Ph.D. and post-doctoral experience preferred. Ability to maintain active research, attract outside funding, and excellence in teaching. Research experiences in regulation of gene expression and growth factor expression in dental and other epithelial-mesenchymal model systems preferred. Submit applications prior to 28 October 1988 to:

**Howard M. Landesman, D.D.S., M.Ed.**  
Executive Associate Dean  
University of Southern California  
School of Dentistry, Room 218  
University Park  
Los Angeles, CA 90089-0641

### RESEARCH Ph.D.

Immediate opening for Ph.D. with interest in basic and clinical research work in cardiac physiology, electrophysiology/biochemistry. The successful candidate should have interest and experience in cardiovascular animal research. Experience in handling various biochemical techniques like HPLC, RIA, spectrophotometry desirable. This challenging position offers opportunity for growth in clinical as well as basic cardiovascular research. Winthrop-University Hospital is a 533-bed teaching affiliate of SUNY, Stony Brook School of Medicine, offering competitive salary, comprehensive benefit package and a professional working environment. The institution has state-of-the-art animal research, electrophysiology, invasive cardiac and cardiac surgical facilities. Send résumé or contact:

**Steven Zeldis, M.D., or Kul D. Chadda, M.D.**  
Winthrop-University Hospital  
259 First Street  
Mineola, Long Island, NY 11501

or call: **The Human Resources Department, Telephone: 516-663-2351.**

*Equal Opportunity Employer M/F/H*

## NATIONAL CENTER FOR SUPERCOMPUTING APPLICATIONS

### University of Illinois at Urbana-Champaign

## SENIOR RESEARCH SCIENTIST

The position will pursue frontier research in computational biomolecular science on our advanced scientific supercomputing facility, which includes a CRAY X/MP-48, a CRAY-2, two ALLIANT FX/8's, a Scientific Visualization Facility, and a host of scientific workstations. This position is a part of NCSA's growing Computational Science Program, consisting of twenty-two staff research scientists, faculty researchers, computer scientists, post doctoral fellows and graduate research associates, which will be housed in the Beckman Institute (Fall 1988) of the University of Illinois, Urbana-Champaign. The successful candidate will be expected to interact with NCSA's Industrial Partners active in biomolecular science and pharmaceutical design: Eastman Kodak Co., Amoco Corp., and Eli Lilly & Co.

A Ph.D. in a related field. Five years research experience at the post-doctoral level in supercomputer simulations of biomolecular dynamics, preferably of large molecules. Familiarity with molecular modeling and quantum chemistry applications software is highly desirable, as is an interest in protein analysis and drug design.

Starting date will be as soon as possible; salary will be commensurate with experience. The position can either be filled as a 12-month, 100% time appointment, or in conjunction with a part-time faculty appointment, to be arranged with an appropriate departmental unit.

To insure full consideration, please send letter of application, curriculum vita, and three letters of reference by August 24, 1988 to:

**Dr. Michael L. Norman**  
National Center for Supercomputing Applications  
152 Computing Applications Building  
605 East Springfield Avenue  
Champaign, Illinois 61820  
217/244-2006

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# REGENERON

## MOLECULAR BIOLOGISTS

## NEUROBIOLOGISTS

**Regeneron**, a newly formed **molecular neurobiology corporation**, has openings for highly qualified, innovative scientists to serve as **group leaders, staff scientists, and postdoctoral fellows** in the **Divisions of Molecular and Cell Biology** and of **Neurobiology**. **Regeneron** was organized by a team of world renowned scientists and physicians with the goal of applying recent advances in the understanding of control of neuronal growth and regeneration to the development of novel therapeutic products for degenerative and traumatic neurological diseases.

Positions in **Molecular and Cell Biology** require skills in any of the following areas:

- **Molecular Cloning** •
- **Gene Expression** •
- **Protein Biochemistry** •
- **Antibody Development** •

Experience with neuronal systems is advantageous but in no way essential for these positions.

Positions in **Neurobiology** require expertise in:

- **Neuronal Cell Culture** •
- **Neurochemistry** •
- **Animal Models** •

**Regeneron's** modern, well-equipped laboratory facility is located on a 200-acre wooded campus in Westchester County, about 20 miles north of New York City, near a number of major universities and medical centers. Close interactions with the Company's Scientific Advisors and other colleagues at academic institutions foster an exceptionally productive intellectual environment.

**Regeneron** offers excellent compensation packages, including generous stock options. Suburban Westchester features attractive and affordable housing, outstanding public schools and recreational facilities, and ready access to the cultural and business centers of New York.

*Please send your resume, in confidence, to: Ms. Carol Deaken, Regeneron, Suite 12 M, 1320 York Avenue, New York, NY 10021.*

**Regeneron** is an equal opportunity employer.

## RESEARCH ASSISTANTS

Crop Genetics International, a growing agricultural biotechnology company in suburban Baltimore/Washington, has openings for research assistants in the molecular biology group. The scientists will join a multi-disciplinary team developing novel microbial technologies for *in planta* production of agricultural biochemicals.

**RESEARCH ASSISTANTS** requirements are a BS or MS in the biological or biochemical sciences. Individuals with research experience in the following areas are encouraged to apply:

### **Molecular Biology—**

Vector/plasmid constructions, analysis of gene expression in prokaryotic systems, gene regulation, heterologous gene expression;

### **Protein Biochemistry—**

Protein chromatography, HPLC and/or FPLC purification of proteins/peptides, 2-D gel electrophoresis, western blot analysis.

*To apply forward a curriculum vitae in confidence and the names of three professional references to:*



Dept. MB1

### **Crop Genetics International**

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Hanover, MD 21076

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## **Employment Exchange at British Laboratory Week October 13-15, Olympia, London**

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15 Smithay Meadows  
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## POSITIONS OPEN

### RESEARCH ASSOCIATE

The position involves multidisciplinary approaches to study the cellular and molecular mechanisms of the host immune responses to HIV and its gene products which will develop new approaches to the characterization of HIV immunity in AIDS. The applicant should have a Ph.D. or M.D. degree and a strong background in retrovirology, molecular biology and immunology.

The candidate should be familiar with tissue culture techniques for the growing of HIV immunophenotyping of cells, host cytotoxicity against HIV infected target cells, and the activation and differentiation of T and B cells by HIV gene products. Salary level (\$22,000 to \$24,000) will be commensurate with education and experience. Send curriculum vitae and list of references to: **James M. Reuben, Ph.D., Division of Laboratory Medicine, 73, University of Texas M.D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.**

Louisiana State University (LSU) is seeking a **RESEARCH ASSOCIATE IV** for the NMR Facility in the College of Basic Sciences.

The position requires a B.S. degree and experience in maintenance and operation of high-field FT-NMR spectrometers or a Ph.D. in chemistry or biochemistry. Duties include scheduling, supervising, maintaining and operating a Bruker AM400 NMR instrument. Experience in 2D techniques and a knowledge of RF electronics is required.

Résumés and cover letters should be sent to: **Dr. Kathy Mordon, 322 Choppin Hall, LSU Campus, Baton Rouge, LA 70803.**

### SCOTLAND UNIVERSITY OF EDINBURGH MRC BRAIN METABOLISM UNIT— DEPARTMENT OF PHARMACOLOGY RESEARCH FELLOW

Applications are invited for the above post to work with intracellular recording techniques on embryonic cells transplanted into adult brain. The post is funded for 3 years by the Parkinson's Disease Society and salary will be on the RAA scale from £9,865 to £12,760 (with placement according to qualifications and experience). The grant is held jointly by **Dr. G. W. Arbuthnott** of Edinburgh and **Dr. S. B. Dunnett** of Cambridge from either of whom further details may be obtained. Letters of application including curriculum vitae and names and addresses of two referees should be sent to: **Dr. G. W. Arbuthnott, MRC Brain Metabolism Unit, University Department of Pharmacology, 1 George Square, Edinburgh EH8 9JZ.** It is hoped to fill the post by October 1988, with a starting date as soon as possible thereafter. Please quote reference no. 5569.

### SENIOR RESEARCH ASSOCIATE

Applications are invited for a senior research associate in the Department of Microbiology, University of British Columbia, available immediately to join a well-established project investigating the role of suppressor cells in immune regulation. The successful candidate should have a Ph.D., and at least 2 years of research experience in immunology.

Experience in cellular immunology, tissue culture, hybridoma production, maintenance of cell lines, lymphokine production, proton analysis techniques—SDS-PAGE, Western blotting, flow cytometry and cell sorting techniques are essential. A knowledge of organ culture techniques and histological techniques for both light and electron microscopy is also highly desirable.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Equal opportunities will be given to male and female applicants.

This position is available immediately and is funded by a grant. Salary \$30,000 per annum. Contact: **Anthea Stammers, Department of Microbiology, The University of British Columbia, #300 6174 University Boulevard, Vancouver, B.C. V6T 1W5, Telephone: 604-228-3872** for an interview.

Deadline for submission of résumé is 19 September 1988.

## POSITIONS OPEN

### RESEARCH ASSOCIATE

Monell Chemical Senses Center has a full-time position for a research associate to design and perform experiments to elucidate mechanisms of receptor-mediated signal transduction in taste/olfactory tissues with emphasis on role of lipids; determine properties of the enzymes of phosphoinositide metabolism with respect to effects of taste/odor stimuli, lipids, guanine nucleotides and calcium; determine incorporation of radioactive precursors into lipids of taste/olfactory tissues; communicate results in oral and written forms. Should have Ph.D. in lipid biochemistry and knowledge and experience in chemical senses (taste and olfaction) with 2 years of postdoctoral experience; \$22,000 per year. Send résumé to: **Joseph G. Brand, Ph.D., Monell Chemical Senses Center, 3500 Market Street, Philadelphia, PA 19104.**

The Department of Biochemistry and Biophysics in the School of Medicine of the University of Pennsylvania is searching for a **SCIENTIST** in the area of the molecular genetics of extracellular matrix proteins with particular emphasis on pulmonary fibrosis. The position to be filled is on the tenure-track and at the associate professor level. The applicant should have a proven track record in research and teaching in the above area. Send curriculum vitae and three letters of recommendation to: **Ms. Ruth Keris, Staff Assistant, Department of Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, PA 19104-6059.** Deadline: 30 September 1988. *Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.*

### SENIOR RESEARCH SCIENTIST ENVIRONMENTAL SCIENCE SPECIALTY

The SCE Environmental Research section seeks an experienced environmental research scientist to direct the analysis and interpretation of environmental data associated with the generation of electric power. Successful candidate will join a multidisciplinary research group of 15 scientists engaged in minimizing environmental impacts from power plants.

Applicants will have at least 7 years of research and project management experience related to the analysis and interpretation of air quality data. Experience with interpretation of other data related to the environmental consequences of industrial effluents will also be considered. Experience with computer-based statistical analysis methods desirable. Excellent oral and written communication skills are critical, as well as a high degree of creativity, initiative and the ability to manage multiple projects. Advanced degree required, preferably Ph.D. in a physical science or engineering discipline.

In compensation for your abilities, we offer an attractive salary and benefits package, in addition to a friendly working environment. To join us, please send your résumé with salary to: **Southern California Edison, Department S-8/5-078, P.O. Box 800, Rosemead, CA 91770.** We aggressively support Equal Opportunity and Affirmative Action. Women and minorities are strongly encouraged to apply.

### SENIOR STAFF FELLOW POSITION IN HEPATITIS VIRUS RESEARCH

DHHS, PHS, Food and Drug Administration, Center for Biologics Evaluation and Research, Division of Virology, has a senior staff fellowship position available for an outstanding candidate with a Medical or Doctor of Philosophy/Science Degree. The purpose of the position is to conduct research in hepatitis viruses and review of hepatitis vaccines. This is a tenure-track position with potential for conversion in 2 to 4 years.

To qualify as a senior staff fellow candidates must have a minimum of 3 years of postdoctoral experience. A strong background in hepatitis virus research is required.

Salary range for candidates with a Doctor of Philosophy/Science Degree is from \$24,000 to \$43,452. Salary range for candidates with a Medical Degree is from \$28,000 to \$50,744. Salary, research support and level of responsibility are commensurate with education and experience. Applicants must be U.S. citizens or resident aliens eligible for citizenship within 4 years.

Interested candidates should send current curriculum vitae and bibliography to: **FDA/Center for Biologics Evaluation and Research, Building 29, Room 114-N, 8800 Rockville Pike, Bethesda, MD 20892.** For further information, call **Ms. Boyer** or **Ms. Hutchinson** on **301-496-5394.** FDA is an Equal Opportunity Employer.

## POSITIONS OPEN

**SENIOR CARBOHYDRATE CHEMIST**; perform research regarding changes in food ingredients, particularly in complex carbohydrate chemistry during food processing in order to improve product quality and processing system itself. Work involves new product development as well as ingredient and formulation research with respect to existing products. Requirements: Ph.D. in food science with major in grain science; must have background and experience in carbohydrate and polysaccharide research for food industry, 40 hours per week; \$36,500 per year. Respond to: **Box 127, SCIENCE.**

### SENIOR SCIENTIST

Organogenesis, a biotechnology company dedicated to the production of living tissue and organ equivalents for clinical and test uses seeks a senior scientist to join a team investigating the development of tissue equivalents for orthopedic applications.

The successful candidate will have a Ph.D. in biochemistry, and 3 to 5 years postdoctoral experience specifically in the field of hormonal control of osteogenesis.

**Box 128, SCIENCE.**

**SENSORY NEUROPHYSIOLOGIST**: Tenure-track possibility for position available at assistant professor level. Serious commitment to collaborative work within the Microsurgical Research Center. Expertise required to characterize electrophysiologically the properties of central axons which have regenerated along peripheral nerve implants. Preference given to applicants experienced in spinal cord neurophysiology and tract-tracing and histological techniques. Please send curriculum vitae with three letters of recommendation to: **Dr. Julia K. Terzis, Microsurgical Research Center, Eastern Virginia Medical School, P.O. Box 1980, Norfolk, VA 23501.**

### SPACE LIFE SCIENCES PROJECT AND CURRICULUM ASSISTANTS

The NASA Space Life Sciences Training Program at the Kennedy Space Center is accepting applications for temporary staff positions (January through August 1989) supporting development and implementation of life science laboratory projects to be included in an intensive summer educational program for undergraduates. These staff positions offer on-the-job exposure to NASA's life science operations and research under the supervision of resident and visiting scientists. Graduate student-level persons with background in human physiology (vestibular, cardiovascular, or muscle), plant physiology, animal nutrition, microbiology, bioengineering, or combinations of the above are especially encouraged to apply. For more information contact: **Dr. Ronald Biro at 407-867-2521.** Applicants should send a letter of interest, curriculum vitae, and three letters of reference by 1 November 1988 to:

**John R. Puleo  
The Bionetics Corporation  
Mail Code BIO-1  
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**STAFF MEMBER, ASSISTANT PROFESSOR**—The Helene W. Toolan Institute is recruiting two positions in the area of tumor biology, cell, and/or molecular biology. These individuals will have a joint appointment, assistant professor, in the Basic Science Programs at the Albany Medical Center. Applicants will be expected to have or establish a peer-reviewed research program. Send applications and three references to: **The Helene W. Toolan Institute for Medical Research, 110 Hospital Drive, Bennington, VT 05201.**

### STAFF SCIENTIST

Ph.D. in biological science with experience in cloning and expression in heterologous microbial and mammalian systems needed for exciting new technology development. Should have broad interests in genetic engineering applications. Excellent communication skills and problem solving capabilities are essential. This position offers ample opportunity for growth, travel, and interaction with other biotechnology laboratories.

Candidates should contact: **Neil Diver, Exogene Corporation, 2585 Nina Street, Pasadena, CA 91107. Telephone: 818-793-1040.**





## EMBL HEIDELBERG

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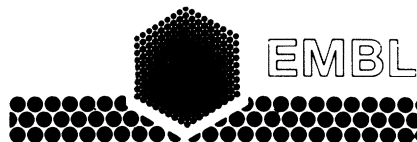
An opening is available for a GROUP LEADER position within the GENE STRUCTURE AND REGULATION PROGRAMME of the EMBL. Applications are invited from candidates working in the general area of the control of gene expression.

Informal inquiries should be addressed to:

**Dr. Riccardo Cortese**  
**Dr. Roberto Di Lauro**  
**Dr. Angus Lamond**  
**Dr. Iain Mattaj**  
**Dr. Henk Stunnenberg**

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## GROUP LEADER

### Isotope Geochemistry

Los Alamos National Laboratory's Isotope and Nuclear Chemistry Division is seeking a well qualified scientist to lead its Isotope Geochemistry Group. The Isotope Geochemistry Group is a multidisciplinary chemistry/geochemistry group with a wide range of research efforts including isotope geochemistry, element migration and fixation in the earth's crust, atmospheric chemistry and transport processes, chemistry of volcanic emissions, radiochemical diagnostics of nuclear weapons tests, "clean" analytical chemistry, and mass spectrometry. Successful applicant will provide scientific leadership, coordinate a research staff of approximately 40 scientists and support personnel, and play a lead role in working with staff and sponsoring organizations to identify and promote future research areas consistent with the Group's mission.

Successful applicant must demonstrate excellence in chemical or geochemical research and ability to lead a multidisciplinary research group. Experience with technical management of research efforts, initiating new research programs and interacting with various levels of management is required. Applicant must have demonstrated abilities in both oral and written communication. PhD in Chemistry, Geochemistry, Atmospheric Chemistry or equivalent combination of education and relevant work experience is required.

Send detailed resume to: Richard O. Garcia (MS P280), Personnel Services Division 80407-BD, Los Alamos National Laboratory, Los Alamos, NM 87545.

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University of California

# Los Alamos

## POSTDOCTORAL FELLOWSHIPS LABORATORY OF DEVELOPMENTAL NEUROBIOLOGY, NICHD, NIH

Positions available in four labs: Dr. P.G. Nelson (cell biology and neurophysiology) - study of synapse development, stabilization and elimination in nerve and muscle cell cultures using cell biology, morphological and intracellular electrophysiological techniques.

Dr. M.L. Mayer (neurophysiology and biophysics) - study of ion channels and synaptic mechanisms activated by excitatory amino acids involving whole cell and single channel recording, neuropharmacology, rapid perfusion techniques, and tissue culture.

Dr. D. Brenneman - study (i) neuron-glial interactions mediated by peptides, using protein isolation and antibody production; (ii) HIV-related proteins and their effects on neuronal development in culture using immunocytochemistry and image analysis.

Dr. A. Buonanno (molecular neurobiology) - study (i) isolating developmentally regulated proteins involved in neuron-glial interactions; (ii) cloning of neuro-transmitter gated ion channel genes for structure function analysis; (iii) expression of neuronal ion channel genes during development.

Applications should include curriculum vitae, addresses and telephone numbers of three references. For further information contact the appropriate investigator, Bldg. 36, Room 2A21, NIH, 9000 Rockville Pk., Bethesda, MD 20892 (301) 496-1463. US citizenship required.

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## DIRECTOR OF APPLIED CELLULAR BIOLOGY

Central to Baxter Healthcare Corporation's aggressive R&D efforts is our Applied Cellular Biology Center. Working with numerous divisions throughout the corporation, we make strong advancements in strategic research and development projects. We now seek an accomplished scientist to direct our efforts in leading edge technology and manage extensive coordination of our collaborative efforts.

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## POSITIONS OPEN

### TECHNICAL MARKETING MANAGER

Promega Corporation, headquartered in Madison, Wisconsin and a leading manufacturer of molecular biological products for research and industrial scientists, is seeking a talented individual for the position of Technical Marketing Manager.

Responsibilities will include technical writing and product applications support. The position will also involve the presentation and delivery of technical data, sales training, and the evaluation of new product ideas and markets. Travel is required. The right candidate will have research experience in the field of molecular biology or a related field and technical writing expertise.

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Promega Corporation  
Personnel Department  
2800 South Fish Hatchery Road  
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### DEPARTMENT OF PHARMACOLOGY THE HEBREW UNIVERSITY— HADASSAH FACULTY OF MEDICINE

Two **TENURE-TRACK POSITIONS** available in cardiovascular pharmacology and general pharmacology.

Applications, including curriculum vitae and names of two or more referees, should be sent until 30 September 1988 to: Dr. Y. Gutman, Chairman, Department of Pharmacology and Experimental Therapeutics, School of Pharmacy, P.O.B. 12065, Jerusalem, Israel.

### TOXICOLOGIST

Ph.D. position in toxicology developing into study director responsibilities. A strong pharmacokinetics background preferred. Expansion position reporting to Director of Toxicology in a leading toxicology contract laboratory.

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Excellent opportunity for teaching and collaborative research in expanding Biochemistry Department at North Carolina State University. Non-tenure-track position for recent Ph.D., postdoctoral fellow, or visiting professor on leave, starting January 1989. Duties include teaching three biochemistry courses at advanced undergraduate/graduate level during the 1-year appointment, with possible extension of appointment into second year. Salary, \$34,200 plus fringe benefits. Send curriculum vitae and three letters of reference by 16 September 1988, to: Dr. Paul F. Agris, Head, Department of Biochemistry, North Carolina State University, Box 7622, Raleigh, NC 27695-7622. *NCSU is an Affirmative Action/Equal Opportunity Employer.*

## CONFERENCE

### NEUROLOGICAL MUTATIONS IN THE MOUSE BAR HARBOR, MAINE 28 SEPTEMBER TO 2 OCTOBER 1988

Conference topics: Metabolic Regulation, Myelin Genetics, The Cerebellum, Murine Homologues of Human Disease, Visual System, Catecholamine Involvement in Mutant Phenotypes, Malformations, and a poster session. Twenty-four speakers. Organized by M. Brilliant and R. L. Sidman. Registration information: Linda Fournier, The Jackson Laboratory, Bar Harbor, ME 04609. Telephone: 207-288-3371.

## AWARDS

### THE CHARLES H. REVSON CAREER DEVELOPMENT AWARDS PROGRAM AT THE WEIZMANN INSTITUTE OF SCIENCE

Purpose: To recruit outstanding young faculty members to the Weizmann Institute of Science offering them an award which will secure their salary at the Institute for 3 years and provide them as well with a 3-year research budget of \$20,000 a year. The recipients have to qualify for a temporary appointment at the Weizmann Institute of Science at the rank of Senior Scientist (=Assistant Professor). They will be selected on the basis of excellence and the potential to develop into leaders in their field.

Deadline for applications is 30 November 1988. Further information is available on request from: Academic Secretary's Office, Weizmann Institute, Rehovot 76100, Israel (Bitnet: RSMARJOR at Weizmann, Telex: 381300).

## RESEARCH AWARDS

Benign Essential Blepharospasm Research Foundation, Inc. (BEBRF, Inc.) announces two \$30,000 each awards for basic/clinical research projects and possible fellowship to determine cause/treatment/cure. Closing date for applications 15 October 1988. For information write: BEBRF, Inc., P.O. Box 12468, Beaumont, TX 77726-2468.

## REQUEST FOR PROPOSALS

**PRE-PROPOSALS**—Deadline 1 September 1988. International Foundation for Ethical Research (IFER) has grants available for research into alternatives to the use of live animals in research, testing, and teaching. Projects must take into account the three R's: Refinement, Reduction, and Replacement plus a fourth R: Responsibility. For information and format write: IFER, 53 West Jackson, Suite 1542, Chicago, IL 60604 or call: 312-427-6025. Fellowships are also available.

## TRAINING PROGRAM

### POSTDOCTORAL FELLOWSHIP MOLECULAR GENETIC DIAGNOSIS

The Institute for Molecular Genetics, Baylor College of Medicine, is seeking applicants for a new program to provide training in state of the art molecular genetic techniques for clinical diagnosis. The 2-year fellowships can begin as early as October 1988. The candidate must have an M.D. and/or Ph.D. and must be a U.S. citizen or permanent resident. Please send curriculum vitae, one-page statement of research and career goals, three letters of reference, and graduate or medical school transcripts. For further information contact: Edward R. B. McCabe, M.D., Ph.D., Director, Baylor Laboratory Training Program, Baylor College of Medicine, One Baylor Plaza, T-526, Houston, TX 77030. *Baylor College of Medicine is an Equal Opportunity Employer.*

## FELLOWSHIPS

University of Michigan: **POSTDOCTORAL FELLOWSHIP** available for recent Ph.D. or M.D., Ph.D. in immunology or relevant related field with expertise in immunoglobulin genetics and protein expression. Specific project involves cloning, modifying and expressing DNA for a murine monoclonal antibody with high-level reactivity with many carcinomas, for eventual targeted cancer therapy. Multidisciplinary laboratory with support available at various levels for the proposed work. For M.D. applicants, program may be tailored to allow for eventual board certification in nuclear medicine. Opportunity greatest for the venturesome. Please send curriculum vitae and names of two references to: Richard L. Wahl, M.D., Division of Nuclear Medicine, University of Michigan Medical Center, Ann Arbor, MI 48109-0028. *Applicants must be U.S. citizen or permanent resident. The University of Michigan is a Non-discriminatory, Affirmative Action Employer.*

## FELLOWSHIPS

### JOINT INSTITUTE FOR LABORATORY ASTROPHYSICS (JILA)

JILA (operated jointly by the U.S. National Bureau of Standards and the University of Colorado) is devoted to research study and teaching in atomic and molecular physics, chemical physics, laser physics, astrophysics, precision measurements, geophysical measurement, and related areas. Applications are invited for two programs:

1. Research Associateships for advanced research by recent Ph.D.'s. Applications are accepted and considered anytime throughout the year.

2. Visiting Fellowships for advanced research by senior scientists. Deadline for completed applications is 1 November 1988. (Please note: the deadline date is changed from that of previous years!)

Further information can be obtained from: The Secretary, Visiting Scientists Program, JILA, Box 440, University of Colorado, Boulder, CO 80309-0440.

*The University of Colorado at Boulder has a strong institutional commitment to the principle of diversity. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities and disabled individuals.*

**FELLOWSHIPS IN EYE-IMMUNOLOGY**, Vision-Immunology Center, University of Connecticut Health Center, Farmington, Connecticut. Research in ocular aspects of inflammation and repair with emphasis on cell and molecular biology, coagulation, fibrin metabolism, plasminogen activator regulation and transplantation. Ph.D., M.D. or equivalent; experience in cell or molecular aspects of inflammation, immunology or cell biology preferred. Available January 1989. Applicants must be eligible for NIH Training Grant salary support. Send curriculum vitae and requests for information to: Dr. Donald L. Kreutzer, Vision-Immunology Center, University of Connecticut Health Center, Farmington, CT 06032. *An Affirmative Action/Equal Opportunity Employer M/W/H.*

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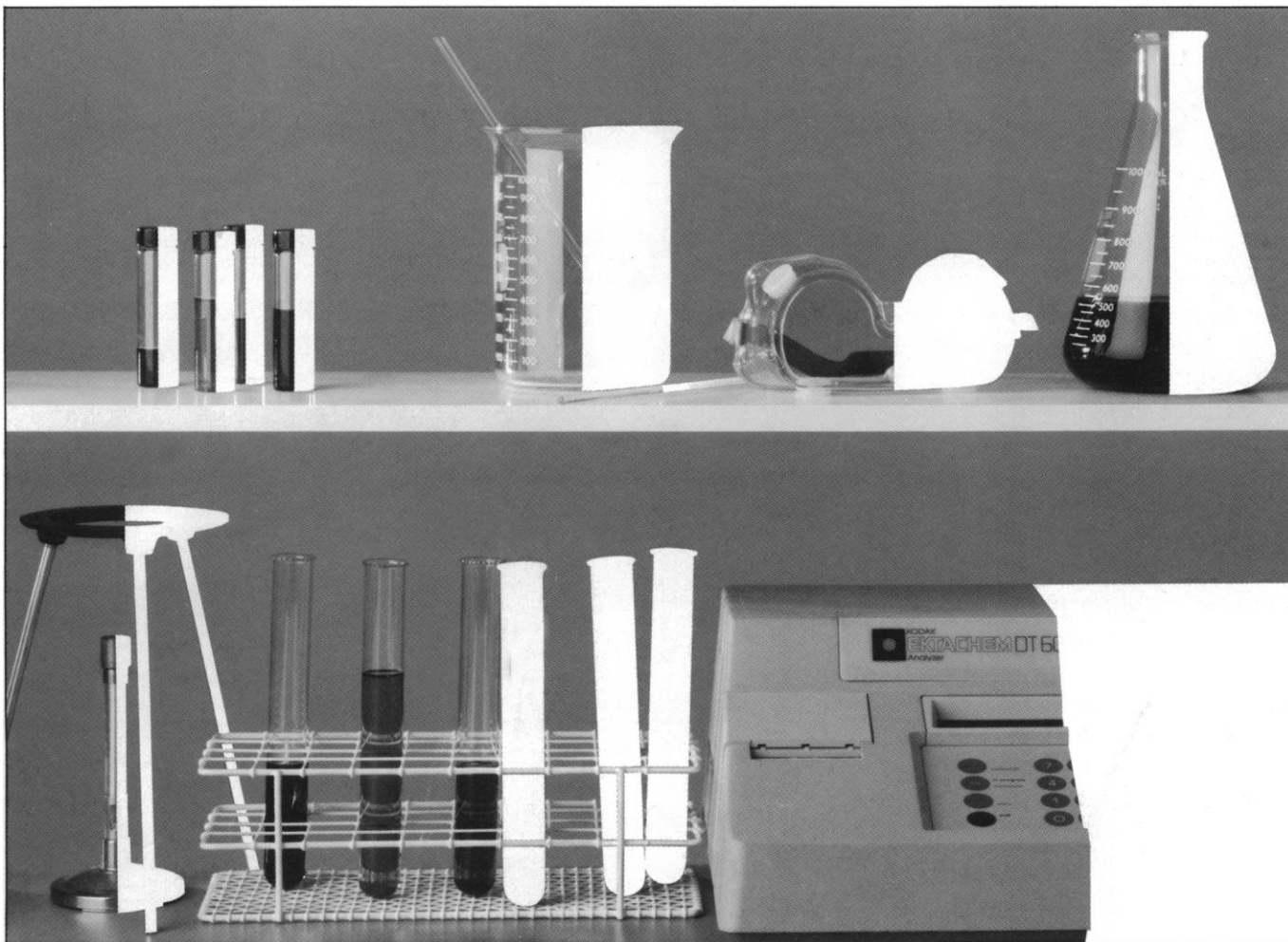
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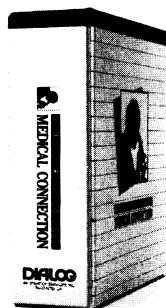
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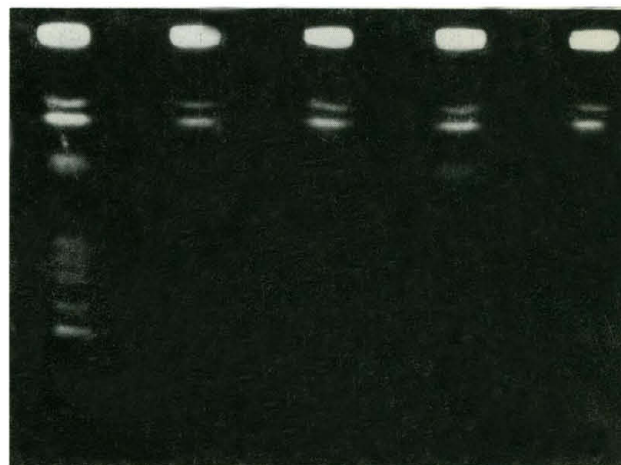
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