

THE 1995 AAAS ANNUAL MEETING & SCIENCE INNOVATION EXPOSITION

Call for Poster Papers

ATLANTA, GEORGIA • 16-21 FEBRUARY 1995

DEADLINE: 15 NOVEMBER 1994

The poster sessions at the 1995 AAAS Annual Meeting and Science Innovation Exposition are an important and informative way to communicate your research and ideas.

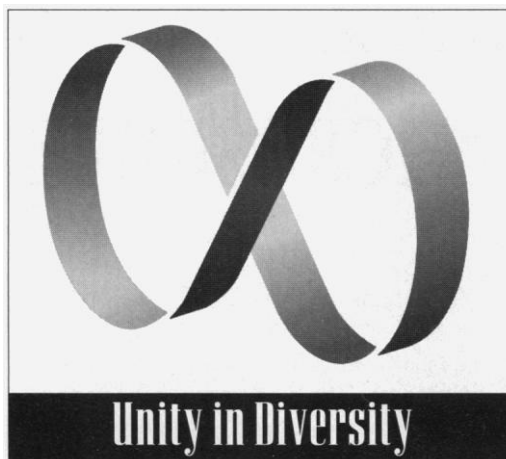
Accepted papers will be assigned a 4' x 8' space on which posters will be displayed. Authors will be required to be present for a designated 2-hour period during the session. Poster sessions will be organized for the following categories: life sciences, physical sciences, social sciences, and education. Please indicate which session you are submitting your poster to when sending it. An individual may be first author on only one poster per category.

Instructions for presenters

DEADLINE: all abstracts must be received by November 15, 1994. Upon acceptance of your poster, you will be advised of the time and place of your session.

ENDORSEMENT: an abstract will be considered *only* if it is endorsed by a member of AAAS. Members may endorse their own abstracts. All individual *Science* subscribers are members of AAAS. Librarians or employees of institutions holding subscriptions to *Science* cannot endorse an abstract unless they also hold an individual membership in AAAS.

FORMAT: refer to the sample for instructions regarding spacing, capitalization, and proper format. At the top of the sheet, type the appropriate session category. The abstract must fit within a 5" x 5" area in the center of an 8.5" x 11" sheet of white paper. Use a typewriter or letter-quality printer with type no smaller than 10 points (12 characters per inch). Justify text along the left margin. Do not double-space or underline text. Below and to the left of the square, type the presenter's name, mailing address, and phone and fax numbers. Below and to the right of the square, type the name, institution, and complete membership number (from *Science* mailing label) of the endorsing AAAS member along with their signature.



Category (Education, Life, Physical, Social Sciences
If eligible, type "Student Award Entry")

Skip 4 lines. Type title in Upper and Lower Case Letters.
PRESENTING AUTHOR'S FIRST NAME IN UPPER CASE
(Institution Name in Upper and Lower Case Within Parentheses). **SECOND AUTHOR** (Institution Name in Upper and Lower Case Within Parentheses). If you have several authors at the same institution, list all names and then list the institution once in parentheses.

Skip one line and type abstract. The full width of the typed material must not exceed 5 inches (12.7 cm). Do not draw a box around the abstract. Abstracts wider than this will be returned. The total length of the material, from top of title to bottom of text (including footnotes) must not exceed 5 inches. The entire abstract should be of camera-ready quality; use a letter-quality printer with a typeface no smaller than 10 points (12 characters per inch). The printed abstract will be photographically reduced 1/3 in size for printing. Do not use paragraphs. Special symbols which must be hand lettered should be in black ink. You may use your allocated space to neatly print equations and diagrams.

Name of Presenter	Name of Endorser (Member)
Presenter's Institution	Endorser's Institution
Mailing Address	Endorser's AAAS Member #
City, State, Zip	Endorser's Signature
Presenter's Phone #	
Presenter's Fax	

REGISTRATION: all submitters whose abstracts are sent prior to July 15 will be sent a registration form after their abstracts are accepted. Abstracts received after July 15, 1994 must be accompanied by a completed registration form. In the event an abstract is not accepted, the registration fee will be refunded.

MAILING INSTRUCTIONS: mail one original plus five photocopies of the abstract flat (**do not bend**) to: AAAS, Meetings Office, Contributed Papers, 1333 H Street, NW, Washington, DC 20005. (Telephone 202-326-6450). Facsimiles are unacceptable as the abstracts will be photographically reproduced.

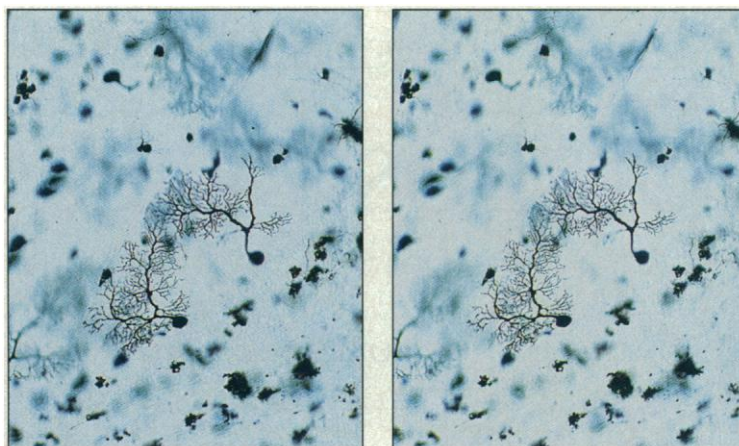
Free Registration for Students

Upper division undergraduates and full-time graduate students are eligible to serve as Session Aides for the meeting. In exchange for assistance with sessions, students can receive a waiver of registration fees and, for additional sessions, a one-year subscription to *Science* magazine. Information and application forms can be obtained from the Session Aide Coordinator at the above address.

Student Research Awards

To encourage young scientists AAAS will have a poster session for research by undergraduate and graduate students. A panel of distinguished scientists will judge student posters. The best presentation in life, physical, and social sciences will be honored, and will receive a cash prize. In addition, top presenters will receive a one-year (51 issues) subscription to *Science*. Students who wish to be included in this session should type the words "Student Award Entry" above their abstract. A photocopy of a current student identification or enrollment form must be submitted with the abstract. Students are eligible if they are enrolled full-time, or if they are part-time but actively working towards a college-level degree.

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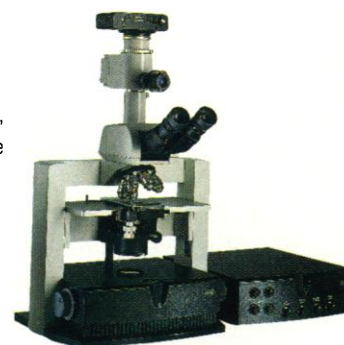
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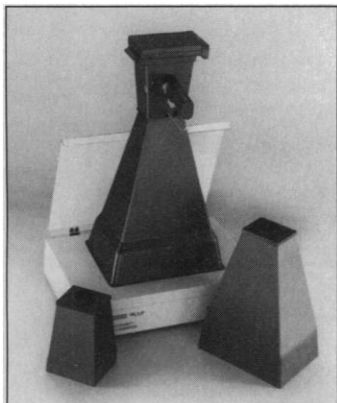
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This system for gel viewing and photodocumentation includes a Polaroid DS-34 camera, ultraviolet transilluminator, darkroom hood, filter, ultraviolet blocking glasses, gel cutter, and black and white film for photography of various size images right at the lab benchtop. The DS-34 is a fixed focal length camera for instant photography. Variable shutter speeds and aperture settings permit the user to easily set up the proper exposure for specific documentation. The camera rests on



top of the hood, which provides a darkroom effect. A variety of transilluminators can be selected from, including multiple wavelengths in one unit, white light and ultraviolet in the same transilluminator, or white light only. **UVP. Circle 142.**

DNA Quantitation Reagent

PicoGreen Nucleic Acid Quantitation Reagent detects as little as 25 pg/ml double-stranded DNA using a standard spectrofluorometer or fluorescence microtiter plate reader equipped with fluorescein-compatible filters. The sensitivity is more than 400 times greater than that of bisBenzimide-based methods. The linear detection range of the assay, using a single dye concentration, extends over more than four orders of magnitude of DNA concentration, from 25 pg/ml to

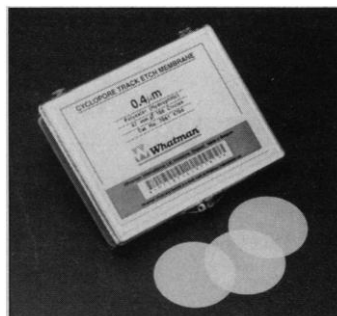
1000 ng/ml. This linearity is maintained in the presence of salts, urea, ethanol, chloroform, detergents, proteins, and agarose. **Molecular Probes. Circle 143.**

Ecological Software

RAMAS/GIS is software for linking geographic information system (GIS) software to an ecological model for conservation biology and wildlife management. The program makes use of GIS-based landscape data and demographic information to estimate extinction risks and assess human impact on endangered and threatened species. The landscape data is used to build spatially structured population models for species that exist in multiple populations, for example species in fragmented and patchy habitats. The model incorporates the spatial and demographic aspects of population dynamics, such as stage structure, local and regional catastrophes, configuration of the populations in the landscape, and dispersal and recolonization among habitat patches. **Applied Biomathematics. Circle 144.**

Cyclopore Membranes

Cyclopore membranes are manufactured using the unique Cyclotron technology developed at the Catholic University of Louvain in Belgium. In the first step of a two-step process, an even distribution of uniform pore sizes is created by bombarding the membrane with precisely controlled high speed particles of well-defined size. In the second step, the membrane is acid etched to fully open the pores. The result is a series of very strong and durable polycarbonate and polyester membranes with uniformly



sized pores over the entire surface of the membranes. These "true pore size microporous screens" are available for collection, recovery, and analysis of a wide variety of particulates from 0.1 to 12 μm . The polycarbonate and polyester membranes can be used in air monitoring, nucleic acid studies, blood filtration for analysis of red blood cells, and wet chemical, spectroscopic, microscopic, and microbial analyses. **Whatman. Circle 145.**

Film for Sequencing Applications

BioMax MR film features advanced technology in a single emulsion format to maximize resolution and increase sensitivity to all ^{35}S -, ^{33}P -, and ^{14}C -labeled gels. The film delivers sharp images on a clear background and up to a fourfold increase in sensitivity over other films. It is twice as sensitive as the manufacturer's X-Omat AR film. For sequencing, BioMax MR film provides maximum resolution to read more bases per gel, maximum clarity to improve base calling accuracy, and maximum sensitivity to reduce exposure times. **Eastman Kodak. Circle 146.**

Genomic DNA Purification Kit

RapidGene DNA Purification Kit extracts genomic DNA from cells, tissues, and Gram-negative

bacteria in as little as 1 hour. The DNA produced is free of RNA contamination and has an $A_{260/280}$ ratio of 1.7 to 2.0. It can be used for restriction analysis, Southern blotting, library construction, and pulsed-field electrophoresis. The purity and average fragment size of the DNA are controlled by the user. No special equipment is needed, most purification steps can be performed using a standard centrifuge or microcentrifuge. **AMRESCO. Circle 147.**

Literature

A Decade of Stellar Technology...with a commitment to quality is a catalog of molecular biology and immunology kits, including kits for isolation of total RNA, messenger RNA, plasmid DNA, and genomic DNA; kits for simultaneous isolation of RNA and DNA; kits for lambda phage DNA purification; hybridization reagents; electrophoresis buffer concentrates; a mouse embryo isolation kit; and more. **Biotech Laboratories. Circle 148.**

Featuring the Portable Pipet-Aid XP is a brochure on liquid handling that features an instrument with nine speed combinations for fast, medium, and slow fill or empty operations. Also included in the brochure is a description of Hemato-Clad Hematocrit tubes, a safety innovation that combines the precision of glass with the protection of a Mylar overwrap to prevent exposure to samples in case of breakage. **Drummond Scientific. Circle 149.**

Trevigen Products Brochure & Price List offers research products for gene regulation, including nuclear extracts, antibodies, purified RNAs, and cells for steroid receptor studies; for gene repair, including a DNA Damage Kit, antibodies, and probes; and for gene technology, including advanced separation media for polymerase chain reaction fragment sizing. **Trevigen. Circle 150.**

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

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
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
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
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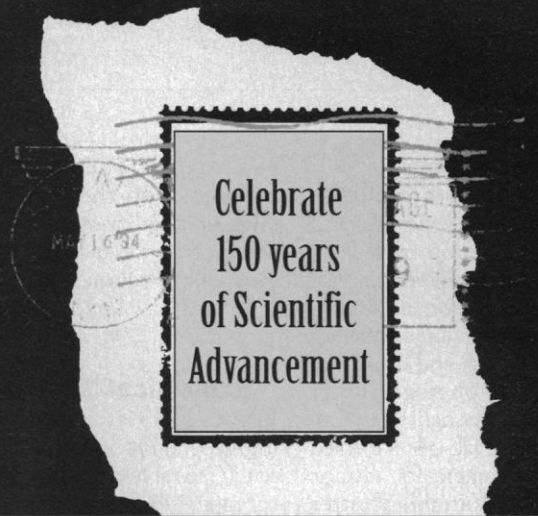
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BUT YOUR HELP IS ESSENTIAL.

We need letters expressing support for a AAAS commemorative stamp as well as ideas for the stamp's theme and design.

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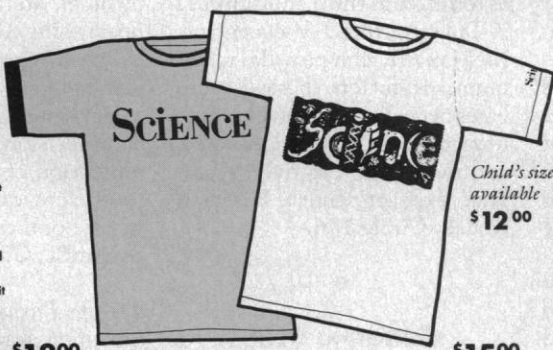
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POSITIONS OPEN

ASSISTANT PROFESSOR—PEDIATRICS. Research in the identification of insulin-sensitive genes in newborn mammals. Must use euglycemic hyper-insulinemic clamp model to investigate insulin-sensitive genes. Must be familiar with decatheterization and physiologic adjustment of blood glucose levels of newborn mammals during hypoglycemia. Prepare tissues for extraction of metabolites, enzymes and messenger RNA. Screen genomic libraries to identify species-specific insulin-responsive genes and perform Northern blots. Direct neonatology metabolic laboratory; be responsible for day-to-day and long-term planning of all research projects; supervise animal research, radiation experiments, micro-method assays and molecular biology experiments. Ph.D. in natural science required and two years of experience in molecular biology with a focus in insulin resistance/sensitivity. Research/experience must include euglycemic hyper-insulinemic clamp model, decatheterization and physiologic adjustment of blood glucose levels, extraction of metabolites, enzymes and messenger RNA, and screening of genomic libraries, Northern blots. \$47,500 per year, 40-plus hours per week. Applicants must have unrestricted authority to work for any U.S. employer. Send two copies of résumé and evidence of research experience, citing Number 940171, to: **Rose Saldivar, Alien Labor Unit, 201 East Washington Avenue, Madison, WI 53702.**

ASSISTANT PROFESSOR OF PLANT SYSTEMATICS

The Department of Biology at Colorado State University (CSU) invites applications for a tenure-track position for a **PLANT SYSTEMATIST**, specifically from individuals who use contemporary molecular techniques to assess phylogenetic relationships of higher plants. Candidates must have a Ph.D. in Botany or a related area; those with curatorial and postdoctoral experience will be favored. The successful candidate is expected to develop a strong research program, to participate in teaching in the botany/biology curriculum at the introductory and advanced level, and to curate the Colorado State University herbarium.

To apply, send a letter stating your teaching and research interests, curriculum vitae, a copy of transcripts, names and addresses of five references, and no more than three publications to: **Secretary, Plant Systematics Search, Department of Biology, Colorado State University, Fort Collins, CO 80523.** All materials are due by 15 October 1994. The search may be extended if suitable candidates are not found.

Ethnic minorities and women are encouraged to apply. CSU is an Affirmative Action/Equal Opportunity Employer. Equal Opportunity Office: 314 Student Services Building.

ASSISTANT PROFESSOR/TERRESTRIAL ECOSYSTEM ECOLOGIST. This is a reannouncement of position AG 1380, which was established by *Partnership for Ecosystem Research and Management* between Michigan State University (MSU) and the Michigan Department of Natural Resources (MDNR). Applications are again being requested for a Ph.D. with expertise in applying GIS and quantitative methods to assess effects of land-use practices and management programs on wildlife resources. Background in applied, management-related research and strong quantitative skills are necessary. Primary responsibilities are to conduct applied research in wildlife ecosystem ecology and management that interfaces ecological data with geographic information systems, and develop and teach a graduate-level course on application of geographic information systems to ecosystem ecology or a related topic. Successful candidate will also cooperate with the MDNR in conducting research and in developing management policies and practices; work effectively with public and private organizations; obtain research grants; maintain a strong publication record; and participate in faculty committees, public service programs, and advising of undergraduate and graduate students. Position will have a joint appointment with the Departments of Fisheries and Wildlife and Geography at MSU and will be available January 1995. Competitive salary at **ASSISTANT PROFESSOR** level. By November 15, 1994, send letter of application, professional goals and objectives, curriculum vitae with supporting materials including transcripts, three letters of reference, and any appropriate publications to: **Dr. R. Ben Peyton, Search Committee Chairperson, Department of Fisheries and Wildlife, Michigan State University, East Lansing, MI 48824-1222. Telephone: 517-353-3236. Email: 20570MGR@msu.edu. FAX: 517-432-1699.**

POSITIONS OPEN

PLANT PHYSIOLOGIST

The Biology Department at Bowdoin College seeks a Ph.D. **PLANT PHYSIOLOGIST** to fill a tenure-track position, teaching duties beginning in the fall term, 1995. Responsibilities will include teaching a laboratory course in plant physiology and additional courses in areas determined by the candidate's interest, and participation in an introductory biology course. In addition, a successful candidate will be expected to maintain an active research program, including undergraduate participation. Ability to contribute, either directly or indirectly, to related programs in environmental studies and/or biochemistry will prove to be of advantage.

Bowdoin is a highly selective coeducational liberal arts institution with approximately 1,500 students, and is located near the coast of Maine, about 25 miles from Portland. Review of application materials will begin on November 1, 1994. Please send résumé and three letters of recommendation to: **Plant Physiology Search Committee, Biology Department, Bowdoin College, Brunswick, ME 04011.** Bowdoin College is committed to Equal Opportunity through Affirmative Action. Women and members of minority groups are particularly urged to apply and are invited to identify themselves as such.

CORNELL UNIVERSITY COLLEGE OF VETERINARY MEDICINE DEPARTMENT OF PATHOLOGY

The Department of Pathology invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** or beginning **ASSOCIATE PROFESSOR** level. Candidates should hold the D.V.M. degree and a Ph.D. in cell biology, molecular genetics or experimental pathology. The successful individual will be expected to establish a rigorous, extramurally funded research program involving molecular studies of the mechanisms of disease. These studies should complement ongoing departmental research programs, including molecular studies of the regulation of cell proliferation and differentiation, studies of cell-cell and cell-substrate interactions, transmembrane signaling, and molecular studies of gene mutations and protein abnormalities in genetic diseases. She/he will also contribute to departmental academic activities, as well as participate in teaching D.V.M. students, graduate students and pathology residents. Applicants should submit curriculum vitae, a summary of present and future interests, and three letters of reference from persons familiar with their research and teaching abilities to: **Andrew Yen, Ph.D., Chairman, Faculty Search Committee, Department of Pathology, Cornell University, College of Veterinary Medicine, Ithaca, NY 14853.** Applications will be reviewed starting September 15, 1994.

Cornell University is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are urged to apply.

EAST TENNESSEE STATE UNIVERSITY CHAIR DEPARTMENT OF ENVIRONMENTAL HEALTH

Available January 1, 1995, 12-month **ASSOCIATE/FULL PROFESSOR AND CHAIR.** Requires an earned doctorate (Ph.D., Dr.Ph., or D.Sc.) in environmental health or a related field; administrative experience in higher education, including budget and personnel supervision as well as an understanding of university governance; an active research program as evidenced by a record of grant funding and scholarly publications; and significant experience teaching at the undergraduate and graduate levels. The individual selected will have demonstrated outstanding professional service and will possess a comprehensive understanding of Environmental Health Sciences as demonstrated by background and experiences. The department consists of seven faculty and offers the B.S.E.H. and M.S.E.H. degrees and courses for an interdisciplinary M.P.H. Send letters of application, curriculum vitae, and names, addresses, and phone numbers of five references to: **Dr. Wilsie Bishop, Interim Dean, College of Public and Allied Health, East Tennessee State University, P.O. Box 70623, Johnson City, TN 37614-0623.** Review of applications will begin September 15, 1994, and continue until position is filled. *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR OR ASSISTANT RESEARCH SCIENTIST NEONATAL MYOCYLLULAR BIOLOGY

Applications are invited for a tenure-track or a research-track position in the Thoracic Surgery Research Laboratories, The University of Michigan Medical School, Ann Arbor, Michigan. A candidate with outstanding research abilities is sought with interest in the physiology, molecular biology or immunobiology of the developing myocardium to interact with clinical and basic science investigators involved in neonatal myocardial biology and infection-specific macromolecular interactions. Excellent institutional programs in surgery, molecular cardiology, and medicine provide opportunities for collaborative research. Qualified applicants should send a current curriculum vitae, letter of interest and names and addresses of three references to: **Edward L. Bove, M.D., Director of Pediatric Cardiovascular Surgery, The University of Michigan Medical School, 1500 East Medical Center Drive, 2120 TC, Box 0344, Ann Arbor, MI 48109. Telephone: 313-936-4980. FAX: 313-763-7353.** *The University of Michigan is an Equal Opportunity Employer.*

FACULTY POSITION IN NUTRITIONAL BIOCHEMISTRY/TOXICOLOGY

ASSISTANT PROFESSOR OF NUTRITION with emphasis in nutritional biochemistry/toxicology. The Department of Nutritional Sciences, University of California at Berkeley, is seeking an Assistant Professor for a nine-month tenure-track position beginning July 1, 1995. The appointee will be expected to develop an independent research program in the area of nutritional biochemistry and toxicology. The appointee may work with graduate students seeking advanced degrees in nutrition, comparative biochemistry or related fields. Teaching assignments will be compatible with the candidate's expertise and interests. Qualifications include Ph.D. or equivalent in nutrition or related field. Send curriculum vitae, a statement of research interests, and the names of at least three references to: **Chair of Nutritional Biochemistry/Toxicology Search Committee, Barker Hall, University of California, Berkeley, CA 94720.** Application deadline: November 15, 1994. Applications submitted after the deadline will not be considered. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR HARVARD UNIVERSITY MOLECULAR AND CELLULAR BIOLOGY (MCB)

The Department of Molecular and Cellular Biology intends to make an **ASSISTANT PROFESSOR** Appointment (entry level) available starting September 1995. Our department covers a broad range of topics in molecular biology, cellular biology, developmental biology, structural biology, neurobiology, and molecular genetics. We are seeking outstanding candidates. We strongly encourage applications from women and minority groups. Applications should include curriculum vitae, reprints of publications, and a statement of present and future research plans (one to three pages). Complete applications and three letters of recommendation, solicited by the applicant, should be received no later than October 1, 1994, by: **MCB Search Committee, Harvard University, 7 Divinity Avenue, Cambridge, MA 02138. Telephone: 617-495-2327.** *Harvard University is an Affirmative Action/Equal Opportunity Employer.*

Rehabilitation Science. The State University of New York at Buffalo is seeking an **ASSOCIATE/FULL PROFESSOR** to coordinate the development of a Ph.D. program in Rehabilitation Science. Other responsibilities include directing a productive research program, teaching and supervising graduate students, and participating in professional and university service. A strong record of interdisciplinary research, teaching at the doctoral level, and scholarship is essential. The appointment will be in the Department of Occupational Therapy or Physical Therapy/Exercise Science within the School of Health Related Professions. Nominations and applications, including curriculum vitae and names and addresses of three references, should be sent to: **K. Ottenbacher, Chair, Rehabilitation Science Search Committee, University at Buffalo, 435 Kimball Tower, 3435 Main Street, Buffalo, NY 14214.** *The University at Buffalo is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

MAYNARD A. AMERINE PROFESSOR OF VITICULTURE AND ENOLOGY

Nominations and applications are invited for a **TENURED POSITION** available July 1, 1995. The appointee will have teaching and student advising responsibilities and will be expected to initiate a research program pertinent to the California grape and wine industry. The monetary award from the Amerine endowment is to support research in this area. The appointment to the Amerine Chair is for five years, subject to renewal on review. Qualifications include a Ph.D. or equivalent degree in a discipline relevant to viticulture and/or enology, teaching and research experience in a relevant discipline, and a record of scholarly and academic achievement. Disciplines encompassed by the department include plant and microbial genetics and biochemistry, plant physiology, microbiology, chemistry, sensory science, and chemical and biochemical engineering. Applicants should submit curriculum vitae with a list of publications; reprints of publications; statement of research and teaching interests, and background in each; and the names and addresses of at least three references to: **Ann C. Noble, Search Committee Chair, Department of Viticulture and Enology, University of California, Davis, CA 95616-8749.** Applications must be received by November 1, 1994. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

PHYSICIAN/SCIENTIST AS ASSISTANT PROFESSOR (TENURE-TRACK). The Geographic Medicine Division and the Center for Vaccine Development at the University of Maryland School of Medicine seek a **PHYSICIAN SCIENTIST** with molecular biology skills and experience as **ASSISTANT PROFESSOR** (tenure-track) of Medicine. The position requires that approximately one month each year be spent in clinical research (testing of vaccines), with the remainder of time devoted to basic laboratory research on the development of vaccines against tuberculosis (major research thrust within the Center). Prerequisites include M.D. with board-certification in internal medicine and infectious diseases, and demonstrable laboratory expertise in molecular biology of bacterial pathogens. M.D./Ph.D. is preferred. Salary depending on experience. Starting date: circa October 1, 1994. Please send curriculum vitae to: **Dr. Myron M. Levine, Director, Center for Vaccine Development, University of Maryland School of Medicine, 10 South Pine Street, Baltimore, MD 21201.** *University of Maryland at Baltimore encourages women and minorities to apply and is an Affirmative Action/Equal Opportunity/ADA Employer.*

PH.D. RESEARCH SCIENTIST

The Department of Obstetrics and Gynecology at the University of Utah Medical Center seeks applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. The successful candidate is expected to establish a strong research program within the department and interact with other scientists in the school of medicine. Preference will be given to candidates with research interests in the general areas of immunology, molecular genetics, or reproductive biology.

Send curriculum vitae, a description of research background, and the names and addresses of five references to: **D. Ware Branch, M.D., Department of Obstetrics and Gynecology, University of Utah School of Medicine, Salt Lake City, UT 84132.** *Equal Opportunity/Affirmative Action Employer. Applications from women and minorities encouraged.*

ASSISTANT PROFESSOR OF ORGANIC CHEMISTRY TENURE-TRACK MASSACHUSETTS INSTITUTE OF TECHNOLOGY DEPARTMENT OF CHEMISTRY

The Department of Chemistry invites applications for a tenure-track position in Organic Chemistry. While the preferred level of appointment is at the rank of **ASSISTANT PROFESSOR**, applications for appointment at more senior levels are also welcome. Outstanding individuals with a strong commitment to research and teaching are encouraged to apply by arranging to have curriculum vitae, a brief description of research plans, and three letters of recommendation sent to: **Professor Robert J. Silbey, Department of Chemistry, 18-399, Massachusetts Institute of Technology, Cambridge, MA 02139-4307** by October 15, 1994.

MIT is an Equal Opportunity/Affirmative Action Employer, and encourages applications from minorities and women.

POSITIONS OPEN

Applications are invited for a **BIOCHEMISTRY** tenure-track position at the level of **ASSISTANT PROFESSOR**, beginning June 1, 1995. The successful candidate will be required to teach physical biochemistry and/or introductory biochemistry. Preference will be given to candidates studying macromolecular interactions, *in vitro* or *in vivo*. Concordia University is an English-language institution located in downtown Montreal, in close proximity to other bioresearch centers. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The closing date for applications is November 11, 1994. Please send applications, including curriculum vitae, statement of proposed research, and three letters of recommendation to: **Dr. J. Powlowski, Department of Chemistry and Biochemistry, Concordia University, 1455 de Maisonneuve Boulevard, West Montreal, Quebec H3G 1M8 Canada. FAX: 514-848-2868.** Previous applicants for this position need only submit a statement of current interest and updated materials as desired. *Concordia University is committed to employment equity and encourages applications from women, aboriginal peoples, visible minorities, and disabled persons.*

FACULTY POSITION ASSISTANT PROFESSOR

Opening for tenure-track **ASSISTANT PROFESSOR** in Department of Cell Biology and Anatomy. Successful applicant will have an established research program in cell/developmental biology, and participate in a team-taught Gross Anatomy course. The Chicago Medical School is located north of Chicago in an attractive suburban setting. Send letter of interest and curriculum vitae to:

**Dr. David McCandless
Department of Cell Biology and Anatomy
Finch University of Health Sciences/
The Chicago Medical School
3333 Green Bay Road
North Chicago, IL 60064**

ASSISTANT/ASSOCIATE PROFESSOR OF NEUROLOGY. University of California, San Francisco (UCSF). The Department of Neurology at UCSF and the Gallo Center seek exceptional M.D. and/or Ph.D. candidates at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR OF NEUROLOGY IN RESIDENCE**, based at San Francisco General Hospital. Successful candidates are expected to have potential for a strong, independently funded research program and credentials in teaching. An interest in alcohol research is preferred, with demonstrated scholarship in the areas of cellular and molecular neuroscience, particularly regarding ligand-operated ion channel function. Excellent salary support and laboratory facilities are available. Send curriculum vitae, research interests and names of three references to: **Ivan Diamond, M.D., Ph.D., Department of Neurology, Building 1, Room 101, 1001 Potrero Avenue, San Francisco, CA 94110.** *The Ernest Gallo Clinic and Research Center and The University of California, San Francisco are Equal Opportunity/Affirmative Action Employers. Women, minority groups and handicapped individuals are encouraged to apply.*

ASSISTANT PROFESSOR

Applications are invited for a position at the level of **ASSISTANT PROFESSOR** (tenure-track) in the Department of Chemistry at Stanford University. Preference will be given to individuals teaching organic chemistry. Appointment would commence on September 1, 1995. Applicants must be strongly motivated toward creative research and have a commitment to teaching at the undergraduate and graduate levels. Applicants should send 1) current curriculum vitae; 2) a list of publications, and 3) a brief statement of research interests (three pages or less) to: **Professor Robert Pecora, Chairman, 1995 Search Committee, Department of Chemistry, Stanford University, Stanford, CA 94305-5080.** Applicants should arrange to have three letters of recommendation sent on their behalf directly to the address listed above. Completed applications must be received by October 15, 1994. *Stanford University is committed to Equal Opportunity through Affirmative Action in employment, and is especially eager to identify minority persons and women with appropriate qualifications.*

**UNITED ARAB EMIRATES UNIVERSITY
FACULTY OF MEDICINE & HEALTH SCIENCES**

MEDICAL PHYSICIST / ELECTRONIC ENGINEER

The Faculty of Medicine and Health Sciences and the Ministry of Health are collaborating in the establishment and evaluation of a telemedicine system for health care within the country. The system will also be used to provide medical education and clinical instruction. In this context, the Faculty seeks an individual with practical knowledge of up-to-date telemedicine and video conferencing systems and, preferably with experience in setting up and operating such systems in association with teachers and physicians. A suitable candidate might be a medical physicist and/or electronic engineer in possession of a PhD together with evidence of relevant research output.

Benefits for the successful candidate include an extremely competitive tax-free salary, free accommodation, furniture allowance, and assistance with children's tuition fees. Also included is an interest free car loan and economy class tickets from the point of recruitment at the beginning and at the end of the contract and once during the academic year. An award of 8.6% of the gross annual salary is payable at the end of each year of service. Annual leave arrangements are generous (73 days per annum) and assistance is given with attending conferences overseas.

The Emirates has one of the most enviable lifestyles of the Gulf region, with all the amenities of any modern society.

Further information may be obtained from Professor J N Norman, Department of Public Health & Occupational Medicine, at the address given below.

Formal application can be made by sending a curriculum vitae, a list of publications, copies of certificates, and the names and addresses of four current referees to:-

Professor Iain McA Ledingham, Dean, Faculty of Medicine,
United Arab Emirates University, P O Box No.17666, Al Ain,
United Arab Emirates. Fax No + 971-3-657649.

研究員／研究補助員

**哺乳動物の遺伝子操作、
遺伝子診断、
生殖細胞の顕微操作**

に関する研究分野の担当を希望する方。

〒289-05、栃木県下都賀郡石橋町下石橋花林519

(株)ワイエスニューテクノロジー研究所

Tel. Japan (81) 285-52-2821

Fax. Japan (81) 285-52-2824

募集人員：研究員／主任研究員 3名。
研究補助員 2名。

研究期間：1994年10月から1年以上。

資格：日本の生活に順応できる方。
国籍は問いません。

応募書類：履歴書。学業成績ないしは研究業績
リスト。応募理由（A4サイズ1枚）。
推薦者2名とその連絡先。

書類送付先：所長あて郵送またはFAXで。

締切：8月20日。

Glycobiologist/ Cell Biologist

W.London/Stevenage, UK

Glaxo is a large research-based pharmaceutical company dedicated to the discovery of novel medicines for the treatment of serious diseases. We have a long term commitment to research in Glycobiology, especially in relation to selectin-mediated leukocyte adhesion and mammalian cellular function. To expand these efforts, we are looking for an enthusiastic, innovative post-doctoral scientist to join a large multidisciplinary team.

Preference will be given to candidates with experience in the areas of protein/carbohydrate interactions and/or cellular recognition by lectins and glycoconjugates. The ability to identify novel lectins and their carbohydrate ligands would be an advantage. Just as important will be your ability to communicate effectively at all levels - both internally and externally - and to demonstrate creativity and initiative in your approach to

research. Publication of research findings and the establishment of links with academic groups is encouraged.

In return you can expect a generous salary plus excellent large company benefits including an extensive relocation package where appropriate. You will also have the opportunity to work in our new state-of-the-art purpose-built research centre at Stevenage - opening in 1995 with the most sophisticated facilities and resources available to science.

As a major healthcare company we are committed to a no-smoking environment.

Please note that previous applicants need not apply.

Please write, enclosing your CV to Kate Lawrey, Human Resources, Glaxo Research and Development, Park Road, Ware, Herts SG12 0DP, UK.

Glaxo Research and Development



POSITIONS OPEN

The Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine is seeking to fill the position of **ASSOCIATE PROFESSOR (RESEARCH)**. This is a non-tenure-track appointment and is co-terminous with funding. Applicants must have a Ph.D., M.D., or equivalent degree. A proven record of training and investigation in basic and clinical sciences related to the neurobiology of sleep and its circadian timing is required. The successful applicant will direct an ongoing multidisciplinary Sleep and Aging program project that investigates both circadian and homeostatic elements of sleep-wake regulation. He/she will develop basic research programs utilizing a complex, very-large-scale computerized basic sleep research facility at Stanford. He/she will also direct an ongoing sleep and circadian rhythm therapeutics discovery program involving preclinical research in laboratory animals and extrapolation of basic discoveries to primate and/or human clinical research. Candidates should demonstrate an interest in and commitment to both research and teaching, including the training of graduate/medical students, residents, and postdoctoral fellows.

Application closing date is 30 days after publication of this advertisement. Please send curriculum vitae and the names of three references to: **Dr. William C. Dement, Professor and Chair of Search Committee, Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, Sleep Research Center, 701 Welch Road, Suite 2226, Stanford, CA 94304.** Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.

BASIC SCIENCE NEPHROLOGISTS. The Penn Center for Molecular Studies of Kidney Diseases at the University of Pennsylvania seeks individuals at the **ASSISTANT PROFESSOR** level with M.D., preferably M.D./Ph.D. degrees who will bring a basic science research program into an already active research division currently supporting 25 postdoctoral fellows. Research space and resource assistance for implementation of a laboratory program will be provided, although it is expected that an appointed individual will have some independent research support. The research interests of our program are diverse, and we now seek faculty with familiarity and research experience in the production of transgenic and knock-out mice. While such individuals should be Board-certified or Board-eligible in Nephrology, these positions will involve a major commitment to research and training of research-oriented postdoctoral fellows. Interested individuals should forward a description of their research program with a curriculum vitae and two letters of reference to: **Eric G. Neilson, M.D., Chief, Renal Electrolyte and Hypertension Division, 700 Clinical Research Building, University of Pennsylvania, 415 Curie Boulevard, Philadelphia, PA 19104-6144.** The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer and solicits applications from women and minority persons.

The F. Edward Hebert School of Medicine at The Uniformed Services University of the Health Sciences (USUHS) invites applications for the position of **PROFESSOR AND CHAIR OF BIOCHEMISTRY**. The USUHS seeks a distinguished Ph.D. or M.D. **SCIENTIST** with a vigorous, well-funded research program and an outstanding record of scholarship and research productivity. The candidate should also be dedicated to the pursuit of excellence in teaching at the medical, graduate, and postdoctoral levels. The Chair will be expected to possess the leadership and administrative skills necessary to develop the department to a position of national prominence. The opportunity to actively recruit new faculty will be afforded the successful candidate. Research facilities and the environment for professional development are excellent. Review of applications will begin in November 1994, and will continue until the position is filled. Applicants should submit curriculum vitae and bibliography, an outline of current and future research interests, and the names of three references to: **Paul D. Rick, Ph.D., Chair, Search Committee, Department of Microbiology and Immunology, care of Civilian Human Resources Management Division, The Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799.** Foreign nationals will be considered only if qualified United States citizens are not available. The USUHS is an Equal Opportunity/Affirmative Action Employer with a strong commitment to racial, cultural and ethnic diversity.

POSITIONS OPEN

DIRECTOR, TRANSGENIC MOUSE FACILITY DEPARTMENT OF OPHTHALMOLOGY AND VISUAL SCIENCES

The University of Texas Medical Branch (UTMB) invites applications for a tenure-track **FACULTY POSITION** in the Department of Ophthalmology and Visual Sciences with a joint appointment in a basic sciences department compatible with the candidate's research interests. The successful candidate will establish and direct a University-wide transgenic animal facility at UTMB. Candidates should have several years of experience in the generation of transgenic animals and in homologous recombination technology. Salary and academic rank are negotiable. A willingness to collaborate with faculty members from various departments at UTMB is essential. Beautiful new laboratory space is provided for the transgenic laboratory and animal care. Very generous start-up funds for personnel, operational costs, and equipment allowance for the transgenic facility will be included. (Competitive start-up funds to develop an independent research program are also available to the candidate.) Applications will be accepted until a successful candidate is identified. Applicants are asked to send a current curriculum vitae, including a publication list, statement of research experience and goals, and names and addresses of three references to: **John Papaconstantinou, Ph.D., Department of Human Biological Chemistry and Genetics, University of Texas Medical Branch, 301 University Boulevard, Galveston, TX 77555-0643.** The University of Texas Medical Branch is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.

ADMINISTRATOR—SUPERVISORY ECOLOGIST, Ph.D. The National Biological Survey anticipates an opening for the **CHIEF OF THE WETLANDS ECOLOGY BRANCH** at the Southern Science Center, formerly known as the National Wetlands Research Center, Lafayette, Louisiana. The Center also has field/duty stations in: Corpus Christi, Texas; Baton Rouge, Louisiana; Gulf Breeze, Florida; College Station, Texas; and Vicksburg, Mississippi. This branch consists of a multidisciplinary group of Ph.D. scientists, biological technicians, and support staff with research activities in coastal and freshwater wetland habitats, global climate change, moist soil management, plant stress, community and landscape ecology, wetland management and restoration, and food web relationships. The Southern Science Center has state-of-the-art laboratory, computer, and GIS facilities in a new building on the campus of the University of Southwestern Louisiana. Minimum Qualifications: Ph.D. or equivalent experience in aquatic, wetland, or plant ecology or related field; administrative/managerial experience; experience in contract and grant administration; and a proven record of scientific achievement. Salary: \$58,000-plus per annum at the GS-14 level. For information, contact: **Jan Whitmore, National Biological Survey, Southern Science Center, 700 Cajundome Boulevard, Lafayette, LA 70506.** Telephone: 318-266-8526. Email: whitmorej@nwrsc.gov. The Federal Government is an Equal Opportunity Employer.

CHIEF OF CARDIOLOGY DEPARTMENT OF MEDICINE METROHEALTH MEDICAL CENTER

The MetroHealth Medical Center seeks a **CHIEF OF CARDIOLOGY** who will direct an 11-person division and develop an independent research focus in cardiovascular disease. Candidates must qualify for a full-time faculty appointment at the rank of Professor of Medicine at Case Western Reserve University. Candidates should have demonstrated expertise in patient care and medical student, housestaff and fellow education. Will direct a research program (clinical or basic science) supported by peer-reviewed, externally funded sources. The successful candidate will assist in the development of a Case Western Reserve University-wide cardiology training program and help define a MetroHealth Center for Cardiovascular diseases.

Please send curriculum vitae by September 15, 1994, to: **G. Richard Olds, M.D., Professor and Chairperson, Department of Medicine, MetroHealth Medical Center, Cleveland, OH 44109-1998.** The screening of applicants will begin on that date and continue until the search is successful or terminated.

The MetroHealth Medical Center is an Equal Opportunity/Affirmative Action Employer and encourages applications from protected and minority groups.

POSITIONS OPEN

ASSISTANT CHAIRPERSON. The Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, Evanston, invites applications for the position of **ASSISTANT CHAIRPERSON**. This is a non-tenure-track administrative position with a courtesy appointment as lecturer. The assistant chairperson's duties include initiation and development of departmental strategies for seeking funds for academic and research programs, project management, planning analysis, and responsibility for the upkeep and renovation of research and teaching facilities. Candidates must have a Ph.D. in the life sciences and some experience in writing research grant proposals; administrative experience is preferred but not required. Candidates with academic experience are encouraged to apply. Send curriculum vitae and arrange for three letters of references to be sent to: **Professor Neil E. Welker, Associate Chairperson, Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, Evanston, IL 60208-3500.** Women and members of minority groups are especially encouraged to apply. Affirmative Action/Equal Opportunity Employer. Deadline: August 31, 1994.

DIRECTOR OF IMMUNOLOGY/ IMMUNOPARASITOLOGY

Paravax, Inc., an innovative company focusing on the development of vaccines against parasitic diseases, has a challenging position open at this time.

Ph.D. with seven or more years of experience (academic or industrial) with demonstrated expertise in molecular and cellular immunology, and an established record of productivity in infectious disease research. Working knowledge of molecular pathogenesis, cytokine involvement in response to infection, and a thorough understanding of host humoral and cellular immune responses to various pathogens is essential. Experience in the rational design of vaccines a plus. Responsibilities include directing the immunology component of several multidisciplinary research programs involved with the design, testing and evaluation of modified-live and subunit vaccines for parasitic diseases of animals. Management and organizational skills required for supervision of eight to ten scientists currently working in the areas of cell biology, parasitology, immunoassay development and adjuvant evaluation. Send curriculum vitae to: **Human Resources, Paravax, Inc., 2301 Research Boulevard, Suite 110, Fort Collins, CO 80526.** Equal Opportunity Employer.

CHAIRPERSON DEPARTMENT OF ANATOMY

Rush Medical College is seeking an academic leader for the Department of Anatomy. The department includes 8.5 faculty members and has major responsibility for teaching Rush Medical students in the pre-clinical years. The candidate should have demonstrated ability and interest in teaching and administration, and proven research skills to establish a strong independent research program. Candidates should qualify for appointment at the level of **PROFESSOR** at Rush Medical College. Closing date for responses: November 1, 1994. Letters of interest with current curriculum vitae or letters of nomination should be sent to: **Theodore Mazzone, MD, Chairman, Search Committee for Chairperson of Anatomy, Rush-Presbyterian-St. Luke's Medical Center, 1653 West Congress Parkway, Chicago, IL 60612.** Rush is an Equal Opportunity/Affirmative Action Employer.

GROUP SUPERVISOR ADENOVIRUS PRODUCTION

Genetic Therapy, Inc. (GTI), a leading biotechnology company, is developing viral-mediated gene transfer methods applicable to human gene therapy. The Tissue Culture Core Laboratory is seeking a **SCIENTIST** to lead a group responsible for adenovirus production. Candidates should possess an M.S. or Ph.D. and have a strong background in adenovirus or other human virus vaccine production. Preference will be given to candidates familiar with GMP compliance. GTI offers a stimulating and challenging environment with competitive salaries and benefits. Please send a résumé, along with the names and addresses of two references, to:

**Genetic Therapy, Inc.
Human Resources—BCC/SUP-9
938 Clopper Road
Gaithersburg, MD 20878**

GTI is an Equal Opportunity Employer

THE SAINSBURY LABORATORY
JOHN INNES CENTRE

SAINSBURY RESEARCH FELLOWSHIP

One Sainsbury Research Fellow position is available at the Sainsbury Laboratory, John Innes Centre, Norwich. The appointment is for 5 years, and funds are available for the successful candidate to appoint a technician, a graduate student and a post doctoral fellow. Appointees will also be eligible to apply for Research Council grants. There are opportunities to lecture at the adjacent University of East Anglia.

Laboratory space is available for a total of three Research Fellows. Two further applicants will be encouraged to apply for five year fellowships from other funding sources on a self-funding basis to occupy this space.

The Sainsbury Laboratory is a not-for-profit institution for the study of interactions between plants and plant pathogens. The Sainsbury Research Fellow will be appointed on the scientific merit of the applicant and their proposed research program, and on the basis of complementarity with existing programs in the Sainsbury laboratory and the John Innes Centre. The appointee may be involved in genetical, cellular or molecular approaches to biological problems. The focus of the Laboratory on plant/pathogen interactions is interpreted broadly, so suitable topics for research include, but are not confined to:

- Molecular genetic analysis of signal transduction in plants, fungi or nematodes.
- Cellular responses to biotic and abiotic challenges.
- Molecular genetics of interactions between plants and microbes.
- Genome research in plants, micro-organisms and nematodes.
- Molecular genetics of plant pathogens.

Salary will be in the range £18,855 to £32,202 (pay award pending) depending on experience and qualifications.

Applications should be sent with full C.V. and a research proposal of not more than 4 pages to the Personnel Officer, John Innes Centre, Colney Lane, NORWICH NR4 7UH, quoting reference SL/893, by 30th September, 1994.

The Faculty of science of the University of Lausanne has an opening for a full time

professorship in physics of living matter

This field is not yet represented in our University. The candidate should be an experimental physicist with specialisation in the physics of living matter. He will set up a new research group and establish collaboration with groups in existing related fields, particularly, for example, with those in the Department of biology, the medical Faculty, the Swiss cancer research Institute, the physics Department of the Swiss federal Institut of technology (EPFL) and with other neighbouring universities.

He will participate in the teaching (in french) of general physics to students in science and give advanced physics students in physics or physical engineers an optional course about physics of living matter. These lectures will also be open to biology, chemistry and medical students. Lectures will be given in French.

Applications (C.V., list of publications, reprints of the three most significant publications, research projects and three references) should be sent before **October 15, 1994** to the dean of the Faculty of science, CP, 1015 Lausanne. For further information: prof. W.-D. Schneider, tél. 41 21 692 36 61 ou 692 36 60, E-mail WSCHNEID@PE.UNIL.CH. For administrative matters: phone 41 21 692 35 01 fax 41 21 692 35 05.



GLAXO INSTITUTE FOR MOLECULAR BIOLOGY
Geneva, Switzerland

Research at the Glaxo Institute in Geneva is aimed at discovering novel molecular mechanisms that can be used as drug targets. A major part of our research is focused on the cloning, expression and distribution of novel genes in the central nervous system. Because of the ever-growing complexity of the collected data, new computer tools must be developed that integrate image analysis, structure recognition and database navigation. We have therefore created an outstanding opportunity for a

POSTDOCTORAL COMPUTER SCIENTIST INTERESTED IN IMAGE PROCESSING, NEURAL NETWORKS AND BRAIN MODELLING

The successful applicant will have a major role within a multidisciplinary team of neurobiologists, molecular biologists and biocomputing scientists. The team collaborates with several academic groups throughout the world. Publication of results and presentations at scientific meetings are strongly encouraged.

Informal enquiries can be directed to Dr. Emilio Merlo Pich (emp15105@ggr.co.uk; phone +41 22 706 98 53) and Dr. Manuel C. Peitsch (mcp13936@ggr.co.uk; phone +41 22 706 99 20).

We offer an excellent compensation and benefits package and significant opportunities for career development. Geneva, situated in a very attractive part of Europe, has many advantages as a place to live. The Institute for Molecular Biology is part of the Glaxo group, one of the world's most successful healthcare companies which has an outstanding reputation for the quality of both its research and products.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three referees to: **Rita Gloor, Personnel Manager, Glaxo Institute for Molecular Biology S.A., 14, chemin des Aulx, 1228 Plan-les-Ouates, Geneva, Switzerland.**

POSITIONS OPEN

CALIFORNIA DEPARTMENT OF HEALTH SERVICES, BERKELEY CHIEF, VIRAL AND RICKETTSIAL DISEASE LABORATORY BRANCH

Primary responsibilities for planning, management, and direction of programs required for diagnosis, investigation and control of viral diseases in California.

The position requires a medical degree with a license to practice in California, and board-certification in public health, preventive medicine and pathology. An MPH or equivalent is desirable. Applicants must have a minimum of five years of experience in all aspects of infectious disease surveillance and control, and have knowledge of medical microbiology, immunology, and epidemiology of viral diseases. Salary range: \$89,424 to \$105,120.

Send curriculum vitae to: **James A. Felten, Assistant Chief, Division of Communicable Disease Control, 601 North Seventh Street, Mail Station Number 486, Sacramento, CA, 95814. Telephone: 916-323-1157. FAX: 324-0050. An Equal Opportunity Employer.**

DIRECTOR, HUMAN BIOLOGICAL DATA INTERCHANGE. A national database and repository of families with diabetes seeks administrative, "take-charge" person with biomedical science and genetics background to interact with researchers and medical community to coordinate family blood collection, oversee computer data input and data analysis, and access database information. Ph.D. with administrative experience. Contact: **Human Biological Data Interchange, 1880 John F. Kennedy Boulevard, Sixth Floor, Philadelphia, PA 19103. Equal Opportunity Employer.**

FACULTY POSITION Memorial Sloan-Kettering Cancer Center

The Program in Molecular Pharmacology and Therapeutics invites applications for tenure-track positions at the **ASSISTANT** or **ASSOCIATE MEMBER** level. We are seeking innovative individuals with strong research accomplishments and outstanding promise, who will use modern molecular and biochemical approaches to address problems of pharmacological relevance.

Applicants should have a Ph.D. and/or M.D. degree, a strong postdoctoral education, and a commitment to excellence in research. MSKCC offers a unique and exciting research environment and will provide generous start-up support. By October 1, 1994, candidates should send curriculum vitae as well as a description of career goals, research objectives and the names of three scientists who can evaluate the applicant's accomplishments and potential to: **Joseph R. Bertino, M.D., Program Chairman, Molecular Pharmacology and Therapeutics Program, Memorial Sloan-Kettering Cancer Center, Box 78, 1275 York Avenue, New York, NY 10021. Memorial Sloan-Kettering Cancer Center is an Affirmative Action/Equal Opportunity Employer.**

COLUMBIA UNIVERSITY COLLEGE OF PHYSICIANS AND SURGEONS DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOPHYSICS

The Department continues its search for outstanding new **FACULTY MEMBERS**. Both tenured and tenure-track positions are available.

Applications are invited from candidates with the Ph.D. degree or its equivalent and appropriate postdoctoral experience for positions in biochemistry and molecular biophysics. In the area of biochemistry, we are seeking persons with research interests in developmental biology, signal transduction, and transcription. In molecular biophysics, the areas of particular interest are three-dimensional structural analysis, NMR of nucleic acids, enzyme mechanisms, and protein-protein interactions.

Preference will be given to those people with strong records of research accomplishments and creativity. Interested candidates should submit a curriculum vitae, bibliography, reprints, and summary of current and future research goals, as well as letters of recommendation from three references. *The Department is especially interested in women and minority candidates.* All applications should be addressed to: **Chairman, Department of Biochemistry and Molecular Biophysics (SF), Columbia University, Health Sciences, 630 West 168th Street, New York, NY 10032.**

Columbia University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE and THE JOHNS HOPKINS HOSPITAL

The Department of Pathology of The Johns Hopkins Medical Institutions invites applications for a **JUNIOR FACULTY POSITION** to develop a molecular diagnostic lab for HPV detection and to coordinate new research in the development of vaccine and immunotherapeutic strategies for HPV-related cervical neoplasia. Other responsibilities include patient care and resident and medical student teaching. Research and publications will be expected. Requirements: specialized training in gynecologic pathology with a background of molecular virology and molecular immunology is essential; board-certified in AP or AP/CP is preferred. Academic rank will be at the instructor level. Applications and nominations should be sent with curriculum vitae to: **Fred Sanfilippo, M.D., Ph.D., Department of Pathology, The Johns Hopkins Hospital, 600 North Wolfe Street, Baltimore, MD 21287-6417. The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer. Women, minorities, Vietnam-era veterans, disabled veterans and individuals with disabilities are encouraged to apply. Drug-free and smoke-free.**

CORNELL UNIVERSITY FACULTY POSITION CONDENSED MATTER PHYSICS

The Laboratory of Atomic and Solid State Physics at Cornell University anticipates making several appointments during the next few years which can be in any aspect of condensed matter physics, including biophysics. Both experimental and theoretical candidates will be considered, with the possibility of a more senior appointment for an exceptionally qualified and experienced individual. The successful candidates will be expected to lead a research program in condensed matter physics, and to participate in the undergraduate and graduate teaching program in the Department of Physics. Recent applicants should not reapply unless there has been a significant and material change in their dossiers.

Please send applications, including curriculum vitae, publication list, a statement of research interests, and the names of three references to: **Professor R. C. Richardson, Director, Laboratory of Atomic and Solid State Physics, Clark Hall, Cornell University, NY 14853-2501, Attention: Faculty Search. Cornell University is an Affirmative Action/Equal Opportunity Employer.**

BIOLOGY DEPARTMENT FACULTY MICROBIOLOGIST

TENURE-TRACK POSITION available beginning August 1995. Faculty rank negotiable. Responsibilities include developing a course in microbial ecology and teaching courses for non-majors, including medical microbiology and environmental biology, and establishing a research program involving undergraduates. Ph.D. with a specialization in microbiology and teaching experience required. Candidate must provide evidence of teaching and research effectiveness. Minorities and women are especially encouraged to apply. Send letter of application, curriculum vitae, transcripts, a statement of long-term goals, and three letters of recommendation to: **Dr. Jerry G. Chmielewski, Chairperson, Department of Biology, Slippery Rock University, Slippery Rock, PA 16057. The deadline for receipt of application is October 15, 1994. Slippery Rock University is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS to study leukocyte motility in the nervous system. Available now or summer of 1995. Please include brief but specific description of relevant experience, and the basis for your interest. Indicate fellowships for which you are eligible. Reply to: **Dr. L. Lampson, Laboratory of CNS Immunology and Tumor Biology, Neurology—LMRC 116, Brigham and Women's Hospital, Boston, MA 02115.**

POSTDOCTORAL POSITION available for studies of the acute and chronic actions of alcohols and anesthetics on cell membranes by NMR, ESR, GC, and HPLC, at an NIH-funded Alcohol Research Center. Send curriculum vitae, names of three references, and research interests to: **Dr. Nathan Janes, Thomas Jefferson University, Department of Pathology and Cell Biology, 1020 Locust Street, Philadelphia, PA 19107. Equal Opportunity Employer committed to a smoke-free environment.**

POSITIONS OPEN

VISITING MINORITY FACULTY POSITION

The Department of Biological Sciences, University of Cincinnati, funded by the Howard Hughes Medical Institute, invites applications for a **VISITING MINORITY FACULTY POSITION** of up to one year. Minority faculty, faculty from predominately minority institutions or minority Ph.D.'s still seeking a regular position are eligible to apply. This individual will conduct research in a laboratory of interest and participate in all professional activities, including departmental courses. Send letter of application, curriculum vitae and two letters of reference to: **Dr. Antony J. Mukkada, Head, Department of Biological Sciences, Howard Hughes Initiatives, P.O. Box 0006, University of Cincinnati, Cincinnati, OH 45221-0006.**

POSTDOCTORAL POSITION

Available October 1, 1994. The research involves participation in an international collaborative study of the molecular biology of prostatic carcinoma in Americans and Japanese. Thorough familiarity with basic molecular biology laboratory techniques is mandatory. Salary: \$25,000 per year plus fringe benefits, including health insurance. Send curriculum vitae and three letters of reference to: **William C. Allsbrook, Jr., M.D., Department of Pathology, School of Medicine, Medical College of Georgia, Augusta, GA 30912-3605.**

POSTDOCTORAL POSITION starting September 1, 1994, to study the physiology of rodent intrahepatic biliary epithelial cells (cholangiocytes) following pathological perturbations associated with proliferation of these cells. Specifically, these studies will focus on the molecular mechanisms of: (i) hormone-regulated ductular bile secretion; and (ii) cholangiocyte proliferation. The studies will employ the use of several cellular, immunohistochemical and molecular biological techniques. Experience in molecular biology is desirable; however, others are encouraged to apply. Applicants should send curriculum vitae, description of research experience, and three letters of recommendation to: **Gene D. LeSage, M.D., Email: gene@ezekiel.tamu.edu., FAX: 817-724-7113, Division of Gastroenterology, Scott & White Clinic, 2401 South 31st Street, Temple, TX 76708. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS. An interactive group of researchers seeks postdoctoral fellows to study protein and RNA processing in yeast: (i) the structure and specificity of the processing protease Kex2 and its localization to the Golgi and (ii) the structure and function of RNase P and small designer ribozymes *in vivo*. Send curriculum vitae and references to: **Robert Fuller (Kex2) or David Engelke (ribozymes), Department of Biological Chemistry, University of Michigan, Ann Arbor, MI 48109-0606. FAX 313-763-4581. The University of Michigan is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION to perform structure/function studies on the recombinant cystic fibrosis transmembrane conductance regulator protein. The main approach entails characterization of wildtype and site-directed mutants of CFTR expressed in and purified from insect cells using the baculovirus expression system. The ideal candidate will have a background in molecular biology and/or biochemistry with experience in the characterization of recombinant proteins. Outstanding applicants from other disciplines will also be considered. Please send curriculum vitae and arrange to have three letters of recommendation sent to: **Elmer M. Price, Ph.D., Dalton Cardiovascular Research Center, Research Park, University of Missouri-Columbia, Columbia, MO 65211. Affirmative Action/Equal Opportunity Employer/ADA Institution.**

POSTDOCTORAL POSITION in molecular genetics to develop thermophilic bacteria for bioremediation. Two-year position available immediately. Candidates must have experience in genetics of gram-positive or gram-negative bacteria and molecular biology or biochemistry. Please send curriculum vitae, summary of research interests, and three references to: **Dr. David H. Figurski, Department of Microbiology and Cancer Center, College of Physicians and Surgeons, Columbia University, 701 West 168th Street, New York, NY 10032. FAX: 212-304-1468. Email: figurski@cuccfa.ccc.columbia.edu. Columbia University is an Affirmative Action/Equal Opportunity Employer.**

Canada's premier humanitarian agency

Scientist, Histocompatibility HLA

This position is located in our National Office in Ottawa. The incumbent will be responsible for performing HLA DNA typing and conducting research for related projects.

Duties include analysing DNA typing results, performing research and development work to improve and update the HLA DNA typing technique, planning new research projects, and implementing those that are approved.

Qualifications include a PhD in Molecular Biology, Immunogenetics or Immunology. A minimum of three years' research experience in molecular biology is required. Preference is given to candidates with experience in HLA DNA typing and sequencing.

The Society offers a comprehensive compensation package.

Qualified applicants are invited to send their resume in confidence, quoting competition number **94-077**, no later than **September 9, 1994**, to the:

**Manager, Marketing and Administration
Manufacturing and Development
National Office, 1800 Alta Vista Drive
Ottawa, Ontario, Canada K1G 4J5**

The Canadian Red Cross Society

Committed to employment equity

THE



MISSION

Biogen is a dynamic young biotechnology company, principally engaged in developing genetically engineered human pharmaceuticals. Now in our 17th year, we are one of the few profitable biotech companies in the U.S. Revenues come from five products -- including Intron (R) alpha interferon and hepatitis B vaccines and diagnostics -- sold throughout the world by licensees or affiliates. Current research is directed toward the discovery and development of proprietary products to treat inflammation, cardiovascular disease, AIDS and certain cancers.

Scientific Computing Professional

Our Information Services department is seeking a unique technical contributor to provide dedicated computer support and play a crucial role in helping us augment and refine our computer system to meet the needs of our expanding and innovative Research group. This technical expert will be responsible for desktop troubleshooting, software training, and database/software upgrades in a very diverse technical environment. The successful candidate will have a BS in Molecular Biology, Protein Chemistry, Chemistry or related discipline, and several years' experience in applying computers to problems in biotechnology. Specific knowledge of bio-medical databases (such as Genbank, SwissProt, NBRF, Medline), genetic analysis software, and accessing Internet resources a must. Experience in database design, networking applications (LANs), and client-server software is desirable.

Biogen offers what few companies in our industry can - Professional Challenge, Stability, Profitability, and Growth. In addition, our compensation and benefits package is one of the best in the industry, and is designed to attract and retain the finest talent available. If you are one of the best, you have an opportunity to join us now. Please forward your resume, to: Ed Bocko, Biogen, Inc., 14 Cambridge Center, Cambridge, MA 02142, FAX: (617) 252-9595. Biogen is an Equal Opportunity Employer.

BIOGEN

Hamilton Regional Cancer Centre

The Hamilton Regional Cancer Centre is a division of the Ontario Cancer Treatment and Research Foundation (OCTRF). The OCTRF, through its regional centres, provides a province-wide system of cancer prevention, treatment, research and education. The Hamilton Regional Cancer Centre, with its newly expanded state-of-the-art facilities, is one of the largest and most modern cancer facilities in Canada. We are currently seeking:

Career Scientists

Applications are invited from individuals with research interests in the area of molecular oncology. Preference will be given to applicants with strong backgrounds in molecular and cellular biology and an interest in proliferative signal transduction, and the mechanism of action of oncogenes and tumour suppressor genes. Minimum requirements for the positions are a PhD and/or MD degree and three years of post-doctoral research experience.

The successful candidates will join a well-established interdisciplinary basic research group at McMaster University, investigating proliferative signal transduction, and a group at the Hamilton Regional Cancer Centre involved in molecular aspects of cell proliferation, tumour progression, and anticancer therapy. Excellent laboratory facilities are available in the Hamilton Regional Cancer Centre, where there is an opportunity to interact with radiation and medical oncologists. Support and establishment funds will be provided by the Ontario Cancer Treatment and Research Foundation.

Send a curriculum vitae, statement of research interests, representative publications, and names of three referees no later than December 1, 1994 to: Dr. Mark N. Levine, Chief Executive Officer, Hamilton Regional Cancer Centre, 699 Concession Street, Hamilton, Ontario, Canada L8V 5C2.

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

THE ONTARIO CANCER TREATMENT AND RESEARCH FOUNDATION

Hamilton
Kingston
London
Ottawa
Sudbury
Thunder Bay
Toronto
Windsor



POSITIONS OPEN

POSTDOCTORAL POSITION

Position available in the laboratory of Dr. John Krupinski at the Weis Center for Research in Danville, Pennsylvania. The successful applicant will have a Ph.D. in biochemistry, cell biology, or pharmacology with experience in molecular biology. The project will involve the expression and characterization of novel forms of adenylyl cyclase (see *J. Biol. Chem.*, 267:24858-24862 and *J. Biol. Chem.*, 269:12190-12195). Emphasis will be placed on determining those structural features of the adenylyl cyclases responsible for mediating unique physiological effects. The Weis Center is a well-equipped, modern research facility in a semi-rural environment. Competitive salary and fringe benefits are available. Please send curriculum vitae with the names and telephone numbers of three references to: **Geisinger Human Resources (JK)**, 100 North Academy Avenue, Danville, PA 17822-1529. *Equal Opportunity/Affirmative Action Employer. Male/Female/Disabled/Veteran.*

BIOCHEMISTRY AND MOLECULAR BIOLOGY OF CYTOCHROME P450

University of California, Irvine

Two **POSTDOCTORAL POSITIONS** and an **ACADEMIC ASSISTANT RESEARCHER POSITION** are available in the UCI Department of Pathology for studies on cytochrome P450 system of lungs, liver and CNS supported by NIH grants.

This ongoing research program seeks to characterize the molecular and genetic basis of P450 inducibility, free radical generation from P450 and their contribution to the development of bronchopulmonary dysplasia of the young. Another project involves elucidation of neuronal changes secondary to neonatal hyperoxic insults and induced changes of steroid metabolism in adults.

Send curriculum vitae, research experience and interests, and names of three references to: **Yutaka Kikkawa, M.D., Professor & Chair, Department of Pathology, College of Medicine, University of California, Irvine, CA 92717.** *The University of California, Irvine is rooted in education and enriched by diversity.*

POSTDOCTORAL POSITION

Vermont Cancer Center
University of Vermont College of Medicine

A two-year **POSTDOCTORAL POSITION** is available in one of a variety of research programs of the Vermont Cancer Center, including DNA damage and repair, experimental therapeutics, cancer control, carcinogenesis, cancer genetics, or immunobiology. The Vermont Cancer Center is a special component of the University of Vermont College of Medicine in Burlington, Vermont. It is one of 27 National Cancer Institute-designated Comprehensive Cancer Centers. Burlington is in a superb location next to Lake Champlain and the Green Mountains.

Applicants should forward curriculum vitae, a description of research interests/experience and three letters of reference by September 1, 1994, to: **Richard Albertini, M.D., Ph.D., Director, Vermont Cancer Center, One South Prospect Street, Burlington, Vermont 05401; FAX: 802-656-8788.**

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

POSTDOCTORAL POSITION available immediately in laboratory studying the role of the inositol phosphate cascade in visual transduction. Experience using single-cell electrophysiological techniques is preferable. Applicants should forward curriculum vitae, description of previous research experience and names of three references to: **Dr. Alan Fein, Department of Physiology, University of Connecticut Health Center, 263 Farmington Avenue, Farmington, CT 06030 MC 3505.**

An Affirmative Action/Equal Opportunity Employer. Male/Female/Disabled/Veteran.

POSTDOCTORAL POSITION—Hepatic Gene Therapy. Development of adenoviral vectors for gene transfer in animal models. Send curriculum vitae plus three names and addresses of references to: **Mark Kay, M.D., Ph.D., Markey Molecular Medicine Center RG-25, University of Washington, Seattle, WA 98195.** *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION available with NIH funding for three years in a project involving the identification, purification, and cloning of intestinal receptors for bacterial enterotoxins (see *J. Clin. Invest.*, 88:119, 1991; *J. Clin. Invest.*, 90:822, 1992; *J. Clin. Invest.*, 93:1257, 1994; *Proc. Natl. Acad. Sci.*, 91:947, 1994). Responsibilities will include protein purification, screening of genomic libraries, DNA sequencing, and expression studies. Ph.D. in biochemistry, cell biology, molecular biology or closely related field is required. PCR, *in situ* hybridization and related techniques an advantage. Send curriculum vitae and three letters of reference to: **J. Thomas LaMont, M.D., or Harry Pothoulakis, M.D., The University Hospital, Boston University School of Medicine, Section of Gastroenterology, E201, 88 East Newton Street, Boston, MA 02118. Telephone: 617-638-8330. FAX: 617-638-7785.**

POSTDOCTORAL POSITION available October 1, 1994, through UAB Cystic Fibrosis Research Center and Immunobiology Vaccine Center to investigate mucosal T and B cell immune responses to viral vectors following CFTR gene transfer. Cellular immunology and molecular biology experience preferable. Submit curriculum vitae and names of three references to: **Dr. David W. Pascual, Department of Microbiology, University of Alabama at Birmingham, University Station-BBRB 772, Birmingham, AL 35294. FAX: 205-975-4436.**

POSTDOCTORAL POSITION

Available immediately to study regulation of endothelial cell function. A strong background in biochemistry, molecular biology and cell biology is preferred. The position involves independent research as well as collaborations. Send letter of application, curriculum vitae and names and telephones of three references to: **Dr. Victor B. Hatcher, Department of Biochemistry, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, NY 10461. Telephone: 718-920-5458. FAX: 718-655-9672. Email: hatcher@aecom.yu.edu.**

POSTDOCTORAL POSITION available immediately to study the prion protein in cell and brain slice cultures. Experience in tissue culture and/or neurobiology required. Please send curriculum vitae, a research summary, reprints, and three references to: **Dr. R. F. Marsh, Department of Animal Health and Biomedical Sciences, University of Wisconsin-Madison, 1655 Linden Drive, Madison, WI 53706-1581.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS available to study genes that determine the yeast replicative life span, their human homologs and age-responsive promoter elements (*Genetica* 91:35, 1993; *J. Biol. Chem.* 269:15451, 1994; *J. Biol. Chem.* 269:18638, 1994.) Experience in molecular techniques essential and in yeast genetics helpful. Send curriculum vitae with bibliography and names, telephone numbers, and FAX numbers of three references to: **Dr. S. M. Jazwinski, Department of Biochemistry and Molecular Biology, LSU Medical Center, 1901 Perdido Street, New Orleans, LA 70112.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL CANDIDATES

The Life Sciences Division of Los Alamos National Laboratory is seeking **POSTDOCTORAL CANDIDATES** to participate in the identification and characterization of genes in human cells that are induced by ionizing radiation. Individuals with a strong background in molecular cloning and/or differential display analysis are especially encouraged to apply. A Ph.D. completed within the last three years, or soon to be completed, required. Annual starting salaries range from \$39,660 to \$42,860, plus an excellent and comprehensive benefits package. Appointments are for two years with a possible third-year renewal. For additional technical information, contact: **Dr. Richard T. Okinaka at 505-667-2743 or Dr. Bruce E. Lehnert at 505-667-2753.** For consideration, submit TWO COPIES of curriculum vitae and publication list to: **Postdoctoral Programs, 94027PD, MS P290, Los Alamos, NM 87545.** Individuals with disabilities needing reasonable accommodation should call 505-667-8622. A Teletype Device for the Deaf (TDD) is available by calling 505-665-5357. Los Alamos National Laboratory is operated by the University of California for the U.S. Department of Energy and is located in the beautiful mountains of northern New Mexico, an area rich in the history of diverse cultures. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

NIH TRAINING PROGRAM

POSTDOCTORAL POSITIONS in CARDIOVASCULAR PHYSIOLOGY

The Department of Physiology at Jefferson Medical College, Thomas Jefferson University (TJU), offers a **POSTDOCTORAL TRAINING PROGRAM** in physiology and pathophysiology of cardiovascular disorders. Research areas include mechanisms of myocardial ischemia-reperfusion injury; phospholipids and eicosanoids in the regulation of endothelial cell function; molecular biology of ion channels; regulation and the molecular basis of smooth muscle contraction; role of G-proteins in signal transduction mechanisms; nitric oxide physiology, neutrophil migration, and the role of adhesion molecules in the interaction of leukocytes and endothelial cells in circulatory and pulmonary disorders. Emphasis will be placed on cellular and molecular approaches to these problems. Faculty participating in this NIH Training Program include **Drs. T. M. Butler, P. E. Desrochers, J. T. Flynn, M. H. Gee, R. Horn, A. M. Lefer, M. J. Siegman and M. J. Woolkalis.** Interested candidates are invited to apply to: **Dr. Allan M. Lefer, Professor and Chairman, Department of Physiology, Jefferson Medical College, 1020 Locust Street, Philadelphia, PA 19107-6799.** *TJU is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately to work with an experienced group of investigators focusing on immunological and molecular aspects of *Pneumocystis carinii*. Strong background in molecular biology or immunology required; experience with a eukaryotic microorganism would be helpful. Send curriculum vitae and three references to: **Francis Gigliotti, M.D., University of Rochester, Department of Pediatrics, Box 690, 601 Elmwood Avenue, Rochester, NY 14642.** *Under-represented minority applicants are encouraged to apply.*

CHEMICAL/BIOMEDICAL ENGINEER is sought to direct research efforts for the intravenous membrane oxygenator development program at the University of Pittsburgh. M.S. or Ph.D., minimum of three years of experience working in biomedical product development required; expertise in membrane oxygenator technology or respiratory physiology desired. Send letter of application with salary requirements, curriculum vitae, and list of references to: **Patricia Sawzik, Suite C-700, Presbyterian University Hospital, 200 Lothrop Street, Pittsburgh, PA 15213.**

POSTDOCTORAL POSITION available immediately to work on structure-function analysis of the mechanism of ion permeation through voltage-dependent Na channels using mutagenesis and single-channel recording. Prior experience in electrophysiology, with a strong interest in molecular biology and biophysics, is required. Direct inquiries and applications to: **Dr. Edward Moczydlowski, Yale University School of Medicine Department of Pharmacology, Sterling Hall of Medicine, P.O. Box 3333, New Haven, CT 06510-8066. Email: moczydlo@yalemed.bitnet.** *Yale University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION IN LIPIDS/CARBOHYDRATES available immediately. The focus of the research is to understand mechanisms of short-term regulation of the lipid-linked glycosylation pathway in response to a changed need for N-glycosylation. The research will include use of steady-state labeling and separation techniques already available in the laboratory. Experience in lipid biochemistry and cell culture is desirable. Send curriculum vitae and names of three references to: **Dr. S. S. Krag, Department of Biochemistry, Johns Hopkins University, 615 North Wolfe Street, Baltimore, MD 21205.** *Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL TRAINING IN CELL AND MOLECULAR BIOLOGY. Projects focus on the *Drosophila* nuclear lamins and entail 1) molecular identification of lamin neighbors within the nuclear envelope by *in situ* chemical crosslinking and 2) study of lamin posttranslational modification during the cell cycle. Please send curriculum vitae, including names and addresses of at least three references, to: **Dr. Paul A. Fisher, Department of Pharmacological Sciences, State University of New York at Stony Brook, Stony Brook, NY 11794-8651.** *State University of New York at Stony Brook is an Equal Opportunity/Affirmative Action Employer.*

**Professor and Director, Biotechnology Research
UNIVERSITY OF MONTANA**

An established biomedical scientist is sought to enhance biotechnology related research at the University of Montana. The university seeks a person with strong interpersonal communication skills who can make a major contribution to biotechnology related research with their own program and assume a leadership role in integrating biotechnology research with programs in biochemistry, chemistry, immunology, microbiology, molecular biology and the pharmaceutical sciences. Ability to generate external funding and foster creative entrepreneurial endeavors is essential. Long range plans include the development and funding of a Biotechnology Research Center. The candidate should be able to establish collaborative ties with The Rocky Mountain NIH Laboratories, Ribi ImmunoChem Research Incorporated, Nurture Co., and other such firms in the Northwest.

Requirements for this position include a Ph.D. degree, documentation of competitive research in an academic or industrial setting, a history of fund raising success and the administrative, management, and interpersonal skills required to foster the development of biotechnology research university-wide, and to enhance interaction with the industrial community and other universities. The salary is competitive and commensurate with experience and will include an academic appointment in the appropriate unit.

The University of Montana is located in Missoula, a cosmopolitan Rocky Mountain community of 70,000. The city and surrounding area has been singled out in national publications for its high quality of life. Abundant recreational opportunities in surrounding state and national forests and nearby Glacier and Yellowstone national parks complement a thriving intellectual atmosphere.

Applications should include a statement of philosophy/interest or a plan relevant to the opportunity, a curriculum vitae, and the names, addresses and phone numbers of at least three references. Screening of applications will begin immediately and continue until the position has been filled.

Send applications or inquiries to:

Vernon R. Grund, Chairman
Biotechnology Search Committee
Department of Pharmaceutical Sciences
University of Montana
Missoula, MT 59812-1075

Phone 406-243-4770 (4765) (2118)
Fax 406-243-4353

The University of Montana is an equal opportunity/affirmative action employer.

EXPECTED FACULTY POSITIONS

The University of Alaska Fairbanks invites expressions of interest in two ASSISTANT UNIT LEADER positions in the Alaska Cooperative Fish and Wildlife Research Unit, a recently expanded prototype Unit of the National Biological Survey. The positions are that of NBS research ecologists (GS-408 series) with non-salaried UAF faculty appointments as ASSISTANT or ASSOCIATE PROFESSOR:

LANDSCAPE ECOLOGIST with expertise in large-scale landscape structure and function, habitat fragmentation, patch dynamics, or spatial modeling. Preference will be given to individuals with demonstrated use of GIS and remote sensing, and who complement our strong program in plant-herbivore interactions.

CONTAMINANTS BIOLOGIST with expertise in the effects of contaminants on health and function of vertebrates and associated food chains. Applicants should have a demonstrated ability to relate organismal toxicology to processes at the population, community, and ecosystem levels. Preference will be given to individuals willing to work on interdisciplinary teams.

The incumbents will plan, conduct, and direct research with emphasis on Alaska natural resource management issues; advise graduate students; teach one graduate level course per year; and develop a research program in their area of specialization.

To express interest in either of these positions, ASAP please send a CV to the Alaska Cooperative Fish and Wildlife Research Unit, University of Alaska Fairbanks, P.O. Box 757100, Fairbanks, AK 99775-7100. The federal registers for these two positions will probably open in August. Those wanting further information:

• about the Landscape Ecologist position may telephone either Dr. Terry Bowyer (907-474-5311, FAX 907-474-6967) or Dr. Dan Roby (907-474-7673, FAX 907-474-6716).

• about the Contaminants Biologist position, telephone Dr. Jackie LaPerriere (907-474-7661, FAX 907-474-6040) or Dr. Phyllis Weber (907-451-6192, FAX 907-456-3091).

**Faculty Position
Tenure-Track
(Molecular and Cellular Biologist)**

We are searching for one tenure-track faculty member at the assistant or associate professor level. The successful candidate will be expected to develop a strong research program in molecular or cell biology and to teach medical and graduate students. The position offers a competitive salary and laboratory start-up package. UMDNJ-Robert Wood Johnson Medical School is a high-caliber research-oriented institution. The School is located on the Rutgers University Busch Campus, Piscataway, NJ, which also includes the Center for Advanced Biotechnology and Medicine (CABM), the Cancer Institute of New Jersey and the Waksman Institute of Microbiology.

Send C.V. and three letters of recommendation by Oct. 15, 1994, to: Dr. Leroy F. Liu, Chair, Department of Pharmacology, UMDNJ-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635. UMDNJ, New Jersey's University of the Health Sciences, is an Affirmative Action/Equal Opportunity Employer, m/f/d/v, and a member of the University Health System of New Jersey.

UMD
NEW JERSEY

Applied Biosystems, a leading supplier of systems and tools for biotechnology research, is currently seeking Scientists. Based in the San Francisco Bay Area, you'll enjoy not only the natural beauty and cultural benefits of this area, but you'll also be a part of one of the largest biotechnology communities in the country.

ASSOCIATE SCIENTIST/SCIENTIST

We are seeking a bench-level Molecular Biologist, Biochemist, or Analytical Biochemist to develop and optimize formulations, applications, and protocols for DNA sequencing, using proprietary fluorescence chemistries and thermal stable enzymes. You'll work together with our Marketing and Chemical Manufacturing groups to define and investigate sequencing technologies, with the ultimate goal of product commercialization.

Requires five years of post-degree, industrial, or academic experience in DNA or RNA sequencing. Experience in fluorescent-based DNA sequencing and with automated sequencers is highly desirable; a working knowledge of mapping, PCR optimization, cloning, vector construction, and transposon biology are useful. The individual we choose will be a self-motivated team player, with a proven ability to work closely with other groups. (Ref. #3545)

PEPTIDE SYNTHESIS SCIENTIST

This talented professional, a member of our Peptide Synthesis Research Team, will develop new reagents, consumable products, and instruments for automated peptide synthesis. Other duties will include identifying new applications for Peptides, and managing outside collaborations.

Requires a Ph.D. in Organic Chemistry or a related discipline; candidates should have previous peptide synthesis chemistry experience, and must be knowledgeable in the areas of automated solid phase peptide synthesizers and current synthetic peptides applications. Solid communication and organizational skills are essential. (Ref. #3784)

We offer a competitive salary and generous benefits package. Please send your resume, indicating appropriate department code, to: Applied Biosystems, 850 Lincoln Centre Drive, Foster City, CA 94404. We are an equal opportunity employer.

PERKIN ELMER

Applied Biosystems Division

POSITIONS OPEN

POSTDOCTORAL POSITION in molecular genetics available immediately to study the molecular biology of hereditary eye diseases, including macular degeneration, retinitis pigmentosa, and glaucoma. Access to the resources of the Cooperative Human Linkage Center is available to facilitate these studies. Applications with experience in molecular biology and genetics are preferred. Experience with gene mapping and positional cloning technology is highly desirable. Please send curriculum vitae and the names and telephone numbers of three references to: **Dr. Edwin Stone, Department of Ophthalmology, or Dr. Val Sheffield, Department of Pediatrics, University of Iowa, Iowa City, IA 52242. FAX: 319-356-3347.** The University of Iowa is an Affirmative Action/Equal Opportunity Employer, and encourages women and minorities to apply.

TWO POSTDOCTORAL POSITIONS available immediately. One is in the area of metallobiochemistry to use steady-state and presteady-state kinetics and spectroscopy to study enzyme mechanisms. The other position is in the area of molecular genetics to clone, overexpress, and perform mutagenesis of genes from anaerobic bacteria. Ph.D. in related field required. Interested applicants should send curriculum vitae and names and phone numbers of three references by September 9, 1994 (or until suitable candidate is found), to: **Stephen W. Ragsdale, Department of Biochemistry, 206 Biochemistry Hall, University of Nebraska, Lincoln, NE 68583-0718.** The University of Nebraska-Lincoln is committed to a pluralistic campus community through Affirmative Action and Equal Opportunity. We assure reasonable accommodation under the Americans with Disabilities Act; contact Dr. Stephen Ragsdale.

TWO POSTDOCTORAL POSITIONS in Neurobiology to investigate tyrosine kinases and phosphatases in neuronal development. One project focuses on signal transduction by cell-adhesion molecules in growth cones and axonal growth dynamics (experience with video-enhanced DIC microscopy desired). Another project is to clone and analyze novel tyrosine kinase and phosphatase genes in retina. Send curriculum vitae and names of three references to: **Dr. Patricia F. Maness, Department of Biochemistry and Biophysics, University of North Carolina School of Medicine, CB Number 7260, Chapel Hill, NC 27599-7260.** Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available after 1 November 1994 to investigate humoral control of epithelial transport and signals. Requirements: Ph.D. and/or M.D. (or equivalent foreign degrees); experience in renal physiology and comparative physiology preferred. The successful candidate will be expected to work with *in vitro* renal tubule transport and will have the opportunity to learn cellular biology and signals, particularly calcium. Interested candidates should send curriculum vitae to: **Hiroko Nishimura, M.D., D.M.Sc., Department of Physiology and Biophysics, University of Tennessee, Memphis, TN 38163.** The University of Tennessee is an Equal Opportunity/Affirmative Action/Title IX/Section 504/ADA Employer. Minorities and women are encouraged to apply.

ASSOCIATE POSTDOCTORAL POSITION

Applications are invited for a **POSTDOCTORAL POSITION** as an **ASSOCIATE** to work in the laboratory of **Dr. Tania A. Baker**, whose current research involves studies of the mechanisms and regulation of DNA replication and transposition.

Qualified candidates should possess a Ph.D. in Molecular Biology, Biochemistry, or Chemistry. Please forward your curriculum vitae and three letters of recommendation to: **Dr. Tania A. Baker, Department of Biology, 68-523, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139.** An Equal Opportunity Employer.

POSTDOCTORAL POSITION at the University of Vermont available immediately to study the control of polarized cell growth in yeast and/or cotton fibers. Training and experience in yeast molecular genetics and/or protein biochemistry is highly desirable. Send curriculum vitae and names of references to: **Dr. Douglas I. Johnson, Department of Microbiology and Molecular Genetics, University of Vermont, 214 Stafford Hall, Burlington, VT 05405.** The University of Vermont is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION is available at the newly established Mountain States Medical Research Institute to participate in the molecular characterization of novel cytokine receptor and signal transduction processes. Experience in molecular cloning, PCR, sequencing, and protein purification is highly desirable. Send curriculum vitae and three reference letters to: **Dr. Jingwen Liu, Chief, Cancer Research Section, Mountain States Medical Research Institute, 190 East Bannock, Boise, ID 83712. FAX: 208-384-4673.**

TWO POSTDOCTORAL POSITIONS to develop anti-HIV gene therapy. The project would involve further development of retroviral vectors expressing anti-HIV genes and assessment of their ability to confer HIV-resistance in primary cell cultures (i.e., peripheral blood lymphocytes and bone marrow stem cells). Successful candidates should have prior experience in molecular biology, primary cell culture techniques, and HIV infections. These positions are available immediately for up to three years. Salary will vary depending on experience, ranging between \$25,000 and \$30,000 (Canadian) per year. To apply, send curriculum vitae and the names and telephone numbers of three references as soon as possible to: **Dr. S. Joshi, Ph.D., D.Sci., Associate Professor and Director, HIV Research Laboratory, Department of Microbiology, Faculty of Medicine, University of Toronto, Toronto, Ontario M5S 1A8 Canada. Telephone: 416-978-2499. FAX: 416-978-4761.** Equal Opportunity Employer.

POSTDOCTORAL POSITION in NEUROSCIENCE

Position available to study the neuronal cytoskeleton. One project combines microinjection of tagged cytoskeletal proteins and digital image analysis to examine the transport and assembly of cytoskeletal elements in growing neurons. A second project examines the role of cytoskeletal proteins in axonal growth using antibody injection and antisense oligonucleotide approaches. Send curriculum vitae, statement of research experience, and the names of three references to: **Dr. Mark M. Black, Department of Anatomy, Temple University School of Medicine, Philadelphia, PA 19140.**

Temple University School of Medicine is an Affirmative Action/Equal Opportunity Employer and strongly encourages applications from women and minorities.

POSTDOCTORAL POSITION

We are seeking a recent Ph.D. in Pharmacology or Biological Chemistry interested in cancer chemoprevention research. Work on pharmacological studies of chemopreventive agents and developing biomarkers for human risk assessment. Familiarity with HPLC in metabolism studies is a plus. Forward curriculum vitae with references.

We offer a competitive compensation package, modern laboratory facility, and pleasant suburban work location.

Forward curriculum vitae, including three letters of reference, to **Dr. F. L. Chung, American Health Foundation, 1 Dana Road, Valhalla, NY 10595.**

The Walther Cancer Institute and The Biochemistry, Biophysics and Molecular Biology Program in the College of Science, The University of Notre Dame, announce the availability of two **WALTHER CANCER RESEARCH FELLOWSHIPS**. These postdoctoral fellowships are two-year appointments to work in the laboratory of one of the following faculty members on the specified research project: **Francis J. Castellino**, Department of Chemistry and Biochemistry (involvement of the fibrinolytic system in malignancy); **Alan L. Johnson**, Department of Biological Sciences (proto-oncogene involvement in apoptosis and ovarian tumor formation); **Marvin J. Miller**, Department of Chemistry and Biochemistry (chemical synthesis of novel antitumor agents); **Michael C. Mossing**, Department of Biological Sciences (NMR studies of proto-oncogenic and related homeodomains). The fellowship salary is set at \$30,000 per year, with additional allotments of \$7,500 per year for supplies and \$1,500 per year for travel. Further information on the specific projects can be obtained by contacting the appropriate investigator. Interested individuals should submit curriculum vitae and letters from three references by September 15, 1994, to: **Dr. Joseph E. O'Tousa, Department of Biological Sciences, University of Notre Dame, Notre Dame, IN 46556.** The University of Notre Dame is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE. Postdoctoral position, supported by NIH training grant, available to study molecular basis of immunological memory using transgenic/knockout animal models. A strong background in molecular biology and/or immunology is essential. Please send curriculum vitae, statement of research interests, and names of three references to: **Dr. Jianzhu Chen, Center for Cancer Research, MIT, Room E17-1280, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.**

POSTDOCTORAL POSITION. Johns Hopkins University, Division of Geriatric Medicine, Bone Metabolism Research Laboratory. A **POSTDOCTORAL POSITION** is available for the study of the molecular biology and growth factor regulation of skeletal matrix development. Position available after October 1994. Contact: **Dr. Jay R. Shapiro, Johns Hopkins Bayview Medical Center, 5501 Hopkins Bayview Circle, Baltimore, MD 21224.** Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOW/ RESEARCH ASSOCIATE

A position is available for a **SCIENTIST** interested in studying integrin gene regulation and the role of specific integrins in tumor metastasis and atherosclerotic processes in the Laboratory of Molecular Biology at the Guthrie Research Institute. The Institute offers outstanding facilities and opportunities for both collaborative and independent work in a supportive environment. Experience in molecular biology, biochemistry, or cell biology is required. Candidates should send curriculum vitae and two letters of reference to: **Dr. John D. Noti, Guthrie Research Institute, 1 Guthrie Square, Sayre, PA 18840. Telephone: 717-882-4653. FAX: 717-882-5151.** An Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIPS funded by the NIA will be available through the Center for the Neurobiology of Aging at the University of Florida, beginning 1 October 1994. Training is available in all areas of neuroscience relating to aging, with potential preceptors in 13 departments and expertise including neuronal gene delivery, neuroendocrinology, receptor-transduction, neuroplasticity, neurochemistry and behavior. Application deadline: 30 August 1994. To apply, please contact: **Dr. Edwin M. Meyer, Box 100267, University of Florida College of Medicine, Gainesville, FL 32610.**

ELECTROPHYSIOLOGIST. POSTDOCTORAL/RESEARCH ASSOCIATE/INSTRUCTOR with experience in whole cell/patch clamp to study signal transduction of novel neurotransmitter/receptor mechanisms relating to oxygen-sensitive channels in neurons and other excitable cells, and to collaborate in receptor cloning using oocyte expression systems. Please send curriculum vitae and bibliography to: **Donald J. Reis, M.D., Division of Neurobiology, Cornell University Medical College, 411 East 69th Street—KB410, New York, NY 10021.** Equal Opportunity/Affirmative Action Employer/Male/Female/Disabled/Veteran.

SYSTEMS NEUROSCIENTIST. POSTDOCTORAL/RESEARCH ASSOCIATE with skills in mammalian neuroanatomy, electrophysiology and/or autonomic physiology to study central neural pathways controlling cerebral blood flow and metabolism relating to hypoxia and cerebral ischemia. Please send curriculum vitae and bibliography to: **Donald J. Reis, M.D., Division of Neurobiology, Cornell University Medical College, 411 East 69th Street—KB410, New York, NY 10021.** Equal Opportunity/Affirmative Action Employer/Male/Female/Disabled/Veteran.

MEETINGS

**THIRD INTERNATIONAL SYMPOSIUM on
MASS SPECTROMETRY
IN THE HEALTH AND LIFE SCIENCES
SAN FRANCISCO, SEPTEMBER 13-18, 1994**
TOPICS: new instruments ●
microtechniques ● gel electrophoresis ●
protein biology ● glycobiology ●
drug studies ● human genome
Single Sessions of Invited Speakers/Posters
Topics emphasize revolutionary biological
results and opportunities
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The University of Memphis

VICE PROVOST FOR RESEARCH AND THE GRADUATE SCHOOL

The University of Memphis is seeking a Vice Provost for Research and the Graduate School to be responsible for providing leadership for the overall operation and development of research activities and graduate programs of the university. The Vice Provost promotes and facilitates basic research, sponsored activities, interdisciplinary research, and research that reinforces the urban mission and cultural diversity of the university. This position serves as catalyst between the faculty and government agencies, foundations, and industry in developing research support. The Vice Provost oversees the graduate programs and administers the distribution of institutional research funds, research and teaching assistantships, graduate fellowships and scholarships to enhance the research and graduate mission of the university.

The University of Memphis is one of two comprehensive doctoral granting public institutions in Tennessee, with 6 colleges and 3 professional schools, enrolling over 20,000 students, of which 4,400 are in graduate programs. The University of Memphis is strongly committed to its urban mission and outreach programs and recognizes the diverse and interrelated roles played by faculty and administration in fulfilling a comprehensive mission of research, education and community outreach.

Candidates must have an established record in research and graduate education; experience in administration of research and training programs, and an earned doctorate or equivalent terminal degree. Preference will be given to candidates who have research and graduate experience at the faculty, departmental, college, and/or university level; have experience at an urban university which is culturally diverse; have experience in securing and administering extramural funds; have an intimate knowledge of granting agencies and funding sources; have a track record of scholarship and experience in graduate education as part of a Ph.D.-granting institution; and have effective communication and leadership skills.

The University of Memphis is strongly committed to diversity; women and minority candidates are encouraged to apply. Screening of candidates will begin September 1, 1994, and may continue until the position is filled. Applicants should submit a letter of interest, a vitae, and a list of five references to:

Dr. Arch C. Johnston, Chair, Search Committee, Vice Provost for Research and the Graduate School, c/o Office of the President, 313 Administration Building, The University of Memphis, Memphis, Tennessee 38152

An Equal Opportunity/Affirmative Action University

RESEARCH ASSOCIATES Upjohn Laboratories

The Upjohn Company, a recognized leader in pharmaceutical research and development, has exciting opportunities for applicants with BS/MS degrees in the following areas:

Adhesion Biology – Participate in the discovery of novel therapeutics in the integrin area. The work will include analyzing beta integrin expression and function, while developing and performing cellular and molecular adhesion assays. Experience in cell biology/biochemistry is required.

Cardiovascular Pharmacology – Assist in the design, performance, and reporting of cardiovascular studies specializing in the areas of myocardial ischemic injury, angina and shock. The candidate will conduct experiments with limited guidance, and train less experienced laboratory personnel in basic procedures and methods. Molecular, biochemical and *in vitro* background is preferred.

Cancer Research – Design and implement assays for the identification of novel anti-cancer agents directed against cell cycle regulatory elements. Experience with modern approaches to cell and molecular biology, and a record of publications is strongly preferred.

Molecular Biology – Participate in an ongoing research program in virology and assist in evaluating new molecular targets for the discovery of new antivirals. Using recombinant DNA techniques, investigate the steps of herpes virus DNA replication and virus assembly. A strong background in molecular biology, virology or biochemistry is required.

Upjohn offers a stimulating, multi-disciplinary research environment at our headquarters in Kalamazoo (a southwestern Michigan community located midway between Detroit and Chicago). An excellent salary and benefits package is provided. For confidential consideration please send your resume to:

The Upjohn Company, Corporate
Recruiting, Ad #222, 7000 Portage Road,
Kalamazoo, Michigan 49001. We are
an Equal Opportunity Employer with a
commitment to workplace diversity.

Upjohn

ASSOCIATE RESEARCH SCIENTIST COLUMBIA UNIVERSITY

The Columbia-Presbyterian Cancer Center of Columbia University's Health Sciences Division is seeking an individual with experience in all aspects of transgenic technology to operate a core facility for the production of transgenic and chimeric mice, under the supervision of Dr. Frank Costantini. Expertise in both DNA and cell microinjection, and embryonic stem cell culture, is required, as is the ability to assist investigators with experimental design and interpretation. The applicant should have a PhD. and two years of relevant post-doctoral experience, although qualified individuals with a Master's degree and extensive experience will be considered. Send letter of application, including curriculum vitae and names of three references to Corinne Constantine, Columbia-Presbyterian Cancer Center, 630 West 168th Street, PH 18-200, New York, NY 10032. EOE



HUMAN DEVELOPMENT AND DISEASE Center for Molecular Oncology

Research Associate/Post-Doctoral Fellowship available to study biochemical mechanisms of mammalian gene regulation related to human sexual development and cancer. A Ph.D. in Molecular Biology or related field is required. This position offers opportunity for interactions with structural biologists. Experience with site-directed mutagenesis, PCR, protein purification, or tissue culture preferred. Send curriculum vitae, letter of interest, and names of 3 references to:

Michael A. Weiss, M.D., Ph.D.
Center for Molecular
Oncology
The University of Chicago
924 E. 57th Street
Room R310
Chicago, IL 60637-5419



THE UNIVERSITY
OF CHICAGO

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POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

A position is available for studies on Eicosanoid Biosynthetic Enzymes. Strong training in Biochemistry and/or Molecular Biology is required; experience with recombinant protein expression and characterization would be helpful. Applicants should send curriculum vitae and the names of three references to: **Dr. Richard Kulmacz, Division of Hematology, Department of Internal Medicine, University of Texas Health Science Center at Houston, Medical School, 6431 Fannin Street, Houston, TX 77030.** Women and minorities are encouraged to apply. UTHSC is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE positions are available for research in the pharmaceutical sciences, including synthetic and natural products chemistry, analytical methodology, pharmacology/toxicology, plant sciences, and microbiology. Projects include multidisciplinary efforts in pharmaceutical/agrochemical discovery and environmental toxicology. Required qualifications: Ph.D. in one of the above disciplines or related field. Deadline for application: Applications for these positions will be reviewed on a periodic basis as positions become available due to vacancies or new funding. Start date: Ongoing as positions become available. Contact: **Administrative Manager, School of Pharmacy Business Office, 206W Faser Hall, University of Mississippi, University, MS 38677.** The University of Mississippi is an Affirmative Action/ADA/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH POSITION WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

POSTDOCTORAL POSITION is available to study the mechanisms determining cell-fate and differentiation in the developing mouse embryo. Current areas of investigation include the role of members of the *forkhead*/winged-helix transcription factor family in epithelial cell differentiation and gene expression. Projects require experience with creation of transgenic mice and ES chimeras. Interested candidates should send curriculum vitae and references to: **Jonathan D. Gitlin, M.D., Box 8116, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110. FAX: 314-454-4542.**

Washington University is an Equal Opportunity/Affirmative Action Employer. Male/Female/Disabled/Veteran.

STAFF SCIENTIST AND POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS. Applicants from a broad range of backgrounds will be considered for research projects related to the design of macromolecular scaffolds, including antibodies and aptamers to a variety of potential ligands. Individuals with graduate or postgraduate experience in molecular biology and/or organic chemistry will be considered. Reply to: **Palo Alto Institute of Molecular Medicine, 2462 Wyandotte Street, Mountain View, CA 94043. Email: Paimm@aol.com.** Position to be filled by January 1, 1995.

BIOCHEMIST/MOLECULAR PHARMACOLOGIST. POST DOCTORAL/RESEARCH ASSOCIATE/INSTRUCTOR to study metabolism, enzymology and structure of molecules relating to novel amine neurotransmitters and their signal transduction pathways in brain and periphery. Please send curriculum vitae and bibliography to: **Donald J. Reis, M.D., Division of Neurobiology, Cornell University Medical College, 411 East 69th Street—KB410, New York, NY 10021.** Equal Opportunity/Affirmative Action Employer/ Male/Female/Disabled/Veteran.

RESEARCH ASSOCIATE to independently study gene expression of neuropeptides associated with changes in nutritional status and the effects of macronutrients on brain functions (neuropeptide synthesis and release). Involves independent research including data analysis and presentation. Expectation is for research to be published in peer review journals. Must have Ph.D. in nutrition/neuroscience with two years of experience in job offered or two years of experience as a molecular biologist. From period of education and/or experience, must have experience in ALL the following (may be concurrent): feeding studies, brain cannulation, RIA development, RNA extraction, cDNA probe preparation, and Northern blot analysis. Forty hours per week, \$33,336 per year. Cover letter and résumé to: **B. Abraham, Number 4-059 MDES—Third Floor, 390 North Robert Street, St. Paul, MN 55101.**

POSITIONS OPEN

RESEARCH ASSOCIATE POSITION available immediately (1 October 1994) to model aerosol deposition and gas absorption processes in human and animal respiratory tracts. The successful candidate, working with other scientists at the University of North Carolina Center for Environmental Medicine and EPA's Environmental Toxicology Division and Human Studies Division, will employ mathematical (coupled systems of partial differential equations) and computational techniques to perform simulations of particle and gas inhalation relevant to mechanisms of respiratory health effects and animal-to-human extrapolation. A Ph.D. in applied mathematics, mathematics, or physics with computer science courses is required. Candidates should also have a minimum of two years of postdoctoral experience with mathematical, supercomputer modeling of respiratory tract morphology and fluid dynamics, with proficiency in writing algorithms and interfacing programs with commercial software. These capabilities should be documented in authorship of publications in the peer-reviewed literature. Submit curriculum vitae and list of three references by 1 September 1994, to: **William D. Bennett, Ph.D., University of North Carolina Center for Environmental Medicine and Lung Biology, Medical Research Building C, CB 7310, Chapel Hill, NC 27599.**

RESEARCH ASSOCIATE for college in northwest Ohio. To conduct research on mouse carcinogenesis by studying oncogene activation and tumor suppressor gene inhibition. Specifically, this will include study of the fundamental mechanisms of chemical carcinogenesis in rodents and human beings; analysis of tumor susceptibility genes; and research on inactivation of tumor suppressor genes in the carcinogenesis of tumor cell lines. Must have Ph.D. (or ABD) in molecular biology. Academic program must have included one graduate-level course each in the following areas: Fundamentals of Oncology, and Pathology. Must be conversant with such molecular biology research techniques as cell and tissue culture; DNA transfection and transformation; Southern, Northern, and Western blotting; polymerase chain reactions; DNA and RNA sequencing; oligonucleotide synthesis; gel motility shift assay; and immunoprecipitation. These skills may be evidenced by academic letters of reference or employer testimonials. Forty hours per week, no experience required, 8:00 a.m. to 5 p.m., \$25,000 per year. Must have proof of legal authority to work indefinitely in the United States. Send résumé and course transcript in duplicate (NO CALLS) to: **K. Shockey, JOB Number 00454, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

GASTROENTEROLOGY (Mucosal Immunology). The Gastroenterology Division at the University of Maryland at Baltimore (UMAB) is seeking qualified applicants for a faculty position at the rank of **RESEARCH ASSOCIATE.** Candidates must be capable of independently designing, conducting and supervising laboratory studies of the interaction of bacterial factors with the human gastrointestinal mucosal immune system. Candidates must have a Ph.D. in immunology, microbiology or molecular biology with a minimum of two years of postdoctoral experience. Experience in molecular biology, immunological, and tissue culture/cell isolation techniques required. Send curriculum vitae to: **Dr. Stephen James, Gastrointestinal Division, University of Maryland, 22 South Greene Street, Room N3W62, Baltimore, MD 21201.** UMAB encourages women and minorities to apply and is an Affirmative Action/Equal Opportunity/ADA Employer.

CARBOHYDRATE CHEMIST

Harvard Medical School (HMS) and Brigham and Women's Hospital (BWH) seek a Ph.D.-trained **CARBOHYDRATE CHEMIST** with expertise in structural and conformational analysis of polysaccharides for a joint faculty position to collaborate with a group of microbiologists and immunochemists. The successful candidate must be interested in the role of carbohydrates in bacterial virulence and the use of polysaccharides or oligosaccharides in vaccine development. Expertise in NMR analysis of carbohydrates is essential. Depending upon qualifications and experience, the successful candidate will be offered an appointment as **ASSISTANT PROFESSOR.** Send curriculum vitae and names of three references to: **Professor Dennis L. Kasper, Co-Director, Channing Laboratory, 180 Longwood Avenue, Boston, MA 02115. FAX: 617-731-1541.** HMS and BWH are Affirmative Action, Equal Opportunity Employers. Women and minorities are encouraged to apply.

POSITIONS OPEN

Two **RESEARCH ASSOCIATE (Ph.D.) POSITIONS** available to study: 1) post-translational regulation of topoisomerase II in acquired anticancer drug resistance; 2) free radical activation of topo II inhibitors. Salary commensurate with experience. Send résumé, statement of research interests and names of three references to: **Jack C. Yalowich, Ph.D., Department of Pharmacology, University of Pittsburgh School of Medicine, 13th Floor BST, Pittsburgh, PA 15261.** Equal Opportunity/Affirmative Action Employer.

STAFF SCIENTIST

A **STAFF SCIENTIST** position is available to conduct basic and applied research on mutational genetic analysis utilizing advanced technology for high throughput screening. The research will involve active collaborative programs with the Harvard Medical School and MIT Center for Environmental Health Sciences.

A Ph.D. in molecular biology or genetics is required. Applicant should have one to two years of postdoctoral experience. Salary range is dependent on experience. Candidates should send résumé to:

**Professor Barry L. Karger, Director
Barnett Institute
Northeastern University
360 Huntington Avenue
Boston, MA 02115**

Northeastern University is an Equal Opportunity/Affirmative Action Employer.

THE MIAMI PROJECT SEEKS 3 NEW FACULTY IN MOLECULAR BIOLOGY, NEUROANATOMY, MOTOR PHYSIOLOGY

The Miami Project to Cure Paralysis, a multidisciplinary research effort to develop strategies to improve function after spinal cord injury at the University of Miami School of Medicine invites applications for tenure-track **ASSISTANT** or **ASSOCIATE PROFESSOR** positions in (1) Molecular Biology or Biochemistry, with research interests that encompass the role of neurotrophic factors in CNS development, plasticity or regeneration, (2) Neuroanatomy, with expertise in neuronal responses to injury, neuronal-tracing methods in vertebrates, and (3) Motor Physiology, emphasizing spinal and supraspinal control of vertebrate locomotor function, and/or neuronal mechanisms of injury-induced motor dysfunction. Primary appointments will be in appropriate clinical or basic science departments. Successful candidates will establish a successful independent research program. Excellent collaborative opportunities exist. Send curriculum vitae, statement of research interests and three references by August 31, 1994, to: **Dr. Richard P. Bunge, Scientific Director, The Miami Project to Cure Paralysis, 1600 N.W. 10th Avenue (R-48), Miami, FL 33136.** The University of Miami is an Equal Opportunity Employer.

PHYSIOLOGY FACULTY POSITIONS

The Department of Physiology at the Medical College of Pennsylvania invites applications for one or more tenure-track faculty positions at the **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** level from investigators whose research programs are in the area of cellular or molecular aspects of membrane biophysics, especially ion channels, receptors, ion channels, receptors, ion and metabolite transport, membrane fusion, or endo- and exocytosis. Applicants must have a relevant Ph.D. or M.D. degree with broad training in physiology or biophysics, and at least two years of postdoctoral experience. Successful applicants will be expected to develop and maintain a vigorous, independent, extramurally-funded research program, as well as teach medical and graduate students. Salary, space, and start-up funds will be competitive. Interested parties should submit curriculum vitae, a statement of research interests, and the names of three references to: **Dr. Michael M. White, Chair, Faculty Search Committee, Department of Physiology, Medical College of Pennsylvania, 2900 Queen Lane, Philadelphia, PA 19129.** The Medical College of Pennsylvania is an Affirmative Action/Equal Opportunity Employer and welcomes applications from qualified women and minorities.

ELECTRON MICROSCOPY TECHNICIAN. Full-time position to oversee the operation of the Electron Microscopy (EM) Lab under the general direction of the Division Chairperson. Qualifications: EM certificate or equivalent, in either the biological or material sciences; on-the-job experience on electron microscopes and in preparation of equipment and EM procedures. Starting salary: \$2,310 per month. Benefits. Application deadline: August 26, 1994. Submit copies of transcripts, diploma, or certificate with Delta College application form and supplemental application form to: **San Joaquin Delta College, Office of Human Resources, Goleman 128, 5151 Pacific Avenue, Stockton, CA 95207.** Affirmative Action/Equal Opportunity Employer. 209-474-JOBS.



UWA

The University of Western Australia

Perth

LECTURESHIP IN BIOLOGICAL ANTHROPOLOGY

DEPARTMENT OF ANATOMY AND HUMAN BIOLOGY
(Tenurable Appointment - Ref: A39/94)

The Department is seeking a lecturer/senior lecturer in biological anthropology; preference will be given to candidates with strong research and teaching interests in contemporary human populations. The Department has extensive research and teaching interests in the integrated disciplines of human biology and anatomy and cell biology and also hosts the Centre for Human Biology. It has twenty full-time academic staff and teaching commitments in the Faculties of Science and of Medicine and Dentistry. Human biology is offered at all years of the Science degree and there is a strong emphasis on postgraduate research. The Department has active and wide ranging research programmes with particular interests in biological anthropology, ecology, genetics and evolution; functional and comparative morphology; reproductive biology and endocrinology; neurobiology and cell and molecular biology. Integration within and between these disciplines is an essential part of the Department's philosophy. Facilities for all of the above are available, including support for field work and museum investigations. The successful candidate will be expected to develop an active research programme and contribute to undergraduate and postgraduate training. **Applicants are requested to submit a teaching portfolio as part of their application. Further information may be obtained from the Head of Department, Professor C Oxnard (tel. [61 9] 380 3298, fax [61 9] 380 1051 or e-mail to the Departmental Administrator, Dr R Swann rswann@anhb.uwa.edu.au).**

SALARY RANGE: Lecturer Level B: A\$41,574 - A\$49,370 p.a.

Benefits include superannuation, fares to Perth (if applicable) for appointee and dependent family, removal allowance (if applicable), study leave and long service leave. Conditions of appointment will be specified in any offer of appointment which may be made as a result of this advertisement. A salary loading may be available in some circumstances.

Written applications quoting reference number, telephone number, qualifications and experience, and the names, addresses and fax/telephone numbers of three referees should be sent to the Director, Human Resources, The University of Western Australia, Nedlands, WA 6009, Australia (fax [61 9] 380 1036) by **2 September 1994**.

The University is an equal opportunity employer and promotes a smoke-free work environment.

Research Scientist

At Amgen, you'll discover a research environment that emphasizes collaboration, intellectual honesty, scientific integrity, and a supportive culture. This unique approach has helped us grow into a global biotechnology leader in just thirteen years.

EST SEQUENCING PROJECT

We seek a Ph.D. in Molecular Biology or related field with at least two years of postdoctoral experience (genome related experience is preferred). Experience in the following areas is also required: constructing and screening cDNA libraries; extending cDNA clones by RACE or alternative methods; and DNA sequencing using fluorescence based automated methods. Experience constructing subtracted cDNA libraries, assessing tissue distribution of transcripts (i.e., Northern, quantitative PCR, in situ hybridizations), and DNA and protein sequence analysis is desired. The ideal candidate will be a goal-oriented, team player with excellent communication skills and the willingness to explore novel experimental approaches.

At Amgen, you'll find our approach to scientific research as rewarding as it is effective. We offer a highly competitive compensation and benefits package that includes a retirement and savings plan, an on-site fitness center, and three weeks' vacation. Please FAX/mail your resume/c.v. to: FAX: (805) 447-1985, Amgen Inc., Staffing, Job Code OA-SC-SS-005, Amgen Center, Thousand Oaks, CA 91320-1789. For additional information regarding Amgen's recruitment process, please call (805) 447-4150. Principals only, please. EEO-Affirmative Action Employer M/F/D/V. We recognize that diverse perspectives are a key factor in the process of discovery.

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Agracetus, Inc.

Research Assistants

Agracetus is the world leader in particle-mediated gene delivery technology. We are seeking research assistants to join ongoing research programs applying Accell™ gene delivery technology toward applications in nucleic acid immunization, therapeutic peptide delivery, and cancer immunotherapy. Successful candidates will hold a B.S. or M.S. degree with demonstrated experience in gene expression, vector construction, immunological assays, and cell culture. Additional research experience with small laboratory animals is desirable. Please send your resume along with the names, addresses, and telephone numbers of three references to: Human Resources, Agracetus, Inc., 8520 University Green Middleton, WI 53562. Fax: 608-836-9710.

Equal Opportunity Employer.

McArdle Laboratory for Cancer Research

Department of Oncology, University of Wisconsin Medical School
Faculty position in Cancer Research

We are looking for a colleague to join us in a tenure-track faculty position at the McArdle Laboratory for Cancer Research, Medical School, University of Wisconsin-Madison. The rank for this position will be commensurate with the qualifications of the applicant. The faculty at the McArdle Laboratory are committed to understanding the origins, prevention, and therapy of cancer through basic research. Applicants therefore should be interested generally in the mechanisms of carcinogenesis and in pursuing research that builds on one of the strengths of the department, including human cancer virology, cancer genetics, growth regulation in normal and neoplastic cells, and chemical carcinogenesis. The department provides a variety of shared research resources, including a BL-3 facility for work with pathogenic viruses and superb animal facilities ideal for investigators who use mouse genetics, gene-knockouts, and transgenic animals to study cancer. Members of the department participate in excellent, well-funded graduate and post-graduate training programs. To be considered, please submit a curriculum vitae, publication list, a 2-3 page statement of research accomplishments and future objectives, and have 3 qualified individuals send letters of recommendation. Review of the applications will begin on September 1, 1994.

Applications and letters of recommendation should be sent to: Faculty Search Committee, McArdle Laboratory for Cancer Research, University of Wisconsin, 1400 University Avenue, Madison, WI 53706.

The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer. Wisconsin State laws permit public access to names, addresses, and occupations of applicants.



MYRIAD
MYRIAD GENETICS, INC.

**Senior Scientists, Postdoctoral Fellows
and Technicians**

Myriad Genetics is a biotechnology company focused on the isolation of human genes that cause disease. Myriad is expanding its molecular biology and diagnostic groups. Myriad recently identified a tumor suppressor gene involved in a high percentage of human cancers (Kamb et al., *Science* 264: 436-440). Company facilities are located in Research Park adjacent to the University of Utah. Myriad offers a competitive compensation package, stock option package, and highly stimulating, interactive environment. Positions are available immediately for technicians, post-doctoral fellows, and senior scientists with strong backgrounds in molecular biology, informatics, genomic research, and/or molecular diagnostics. Please send a C.V. and letter of interest outlining your area of expertise to: Dr. Dennis Ballinger, Myriad Genetics, Inc., 421 Wakara Way, Salt Lake City, Utah 84108.

**RESEARCH ANALYST
and
RESEARCH ANALYTICAL BIOCHEMIST**

Monsanto Agricultural Group is seeking candidates for two positions. The individuals in these positions will participate in analytical biochemical methods development and/or HPLC/GC/CE methods development, and perform routine assays in support of product development efforts. They will be responsible for validation of methods used in support of regulatory submissions and will also be responsible for activities related to assigned projects including data generation, technical discussions with clients and participation in project reviews. These positions must also assure compliance with cGMP, GLP and safe laboratory practices. They will be responsible for writing and editing technical reports, SAM's and SOP's to support analytical research, validation packages and submissions to the Food and Drug Administration.

Qualifications: The candidate must be capable of design, evaluation, validation and utilization of methods for the analysis of active ingredients, intermediates and impurities in process streams and/or final products. Several years of experience in methods development, problem solving, method validation, GLP/GMP, evaluating data, formulating hypotheses and designing experiments is necessary. Demonstration of successful interaction with scientists at the bench and in the pilot plant is essential. Must be a self starter, motivated to succeed and driven to make a positive contribution.

In addition to the above qualifications, candidates for the Research Analyst position must demonstrate several years of experience in chromatographic techniques and equipment maintenance. The candidate for Research Analytical Biochemist must demonstrate experience in bioanalytical techniques such as receptor assays, immunological assays, etc.

Monsanto provides a competitive compensation package relative to your responsibilities and qualifications. Interested candidates, please forward your resume to:

John D. Figiel, Human Resources Manager
MONSANTO COMPANY
800 North Lindbergh Blvd.
St. Louis, MO 63167

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CHIEF, Laboratory of Immunochemistry, FDA,
Center for Biologics Evaluation and Research,
Office of Blood Research and Review, Division of
Transfusion Transmitted Diseases.

To direct regulatory activities and a research program related to the prevention of blood-borne infections such as HIV and HTLV. Studies include humoral and cellular immune response to these and related viruses.

Qualifications: **Physicians** - requirement for Doctor of Medicine or Osteopathy degree from accredited institution. Graduates of foreign medical schools submit copy of permanent Educational Commission for Foreign Medical Graduates (ECFMG) certification. **Scientists** - doctoral level degree in immunology/chemistry or other related field along with advanced training and/or experience in immunochemistry is desired. Experience in the development, manufacture or testing of biologics is desirable. Highly developed analytical, written and oral skills, as well as the ability to research problems and issues is desired.

GS-13/14: Salary range for Physician is \$59,099 - \$83,059. Physician may also be eligible for a comparability allowance up to \$20,000 per annum. **Salary range for Scientist is \$49,947 - \$76,733.** Salary, benefits, and level of responsibility are commensurate with education and experience.

Interested candidates contact Ms. Murphy on (301)402-4654 to obtain SF-171 (application for vacancy) and additional information regarding vacancy announcement.

U.S. Citizenship required. FDA is an EEO Employer and has a Smoke-Free Environment.

**MOLECULAR PATHOGENESIS
JUNIOR AND SENIOR FACULTY
POSITIONS AVAILABLE**

The Department of Microbiology and Immunology invites applications for multiple junior and senior level, tenure-track positions focusing on the molecular analysis of significant problems in microbial pathogenesis. Senior candidates should have strong records of research accomplishment with sustained program growth and development. Junior candidates should have two to five years of postdoctoral research experience in the area of microbial pathogenesis and will be expected to develop high quality, independent research programs with long-term growth potential. Teaching responsibilities, which emphasize quality rather than quantity, include medical, dental and graduate students. The Department is located in a major medical complex and offers a high quality intellectual environment with 80% of the faculty holding active extramural research grants.

A large Center of Excellence grant has resulted in establishment of a Molecular Resource Center within the Department featuring state-of-the-art facilities for: oligonucleotide synthesis, peptide synthesis, monoclonal antibody production, amino acid analysis, DNA sequencing, molecular graphics, and flow cytometry. Funds for the initiation of research programs will be available and salaries will be highly competitive.

Review of applications will continue until the position is filled. Applications should consist of curriculum vitae, copies of several recent publications, a brief statement of future research goals, and three letters of reference to be sent to:

Dr. Terrance G. Cooper
Department of Microbiology and Immunology
The University of Tennessee, Memphis
858 Madison Avenue, Room 801
Memphis, Tennessee 38163

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**ENDOWED CHAIR
BASIC CANCER RESEARCH**

Tulane University Medical Center seeks an eminent scholar for the Zimmerman Chair in Basic Cancer Research and Associate Director for Basic Research of the Tulane Cancer Center. Candidates should hold the Ph.D. and/or M.D. with credentials suitable for appointment with tenure at rank of Associate Professor or Professor in a basic science department of Tulane University Medical Center. Candidates should have significant and recognized scientific accomplishments in the molecular biology of cancer and demonstrated administrative ability to develop and focus research programs in cancer biology. The Cancer Center interacts with Graduate Program in Molecular and Cell Biology, Center for Bioenvironmental Research, Tulane Primate Research Center, School of Medicine, and School of Public Health and Tropical Medicine. Resources include, in addition to an endowed chair, generous research space on a newly-opened cancer research floor, extensive core equipment, and the opportunity to participate in the recruitment of additional basic science faculty. Send letter & CV: Roy S. Weiner, M.D., Director, Tulane Cancer Center, 1430 Tulane Avenue SL-68, New Orleans, LA 70112-2699.

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NEW FRONTIERS IN THERAPEUTICS: *THE HUMAN GENOME*

SEQUANA THERAPEUTICS, INC. invites you to join an international research & development company utilizing the rapid advances in human genome research to develop therapeutics for common genetic diseases. Sequana integrates molecular genetics research, human genome technologies, cell biology, laboratory automation, and informatics to create a new approach to biopharmaceuticals development.

CLINICAL GENETICS

As a leader in the emerging field of genomics and positional cloning of human complex disease genes, we are seeking an individual with an M.D. or Ph.D. to coordinate all of our current patient collection efforts for genetic studies. You will also initiate future collaborations with academic research groups, foreign national health services and domestic health maintenance organizations (HMOs).

An M.D. specializing in medical genetics is desired, although those well qualified and experienced applicants with a Ph.D. will also be considered. Successful candidates will have experience managing patient collection projects and research collaborations.

YEAST GENETICS

Sequana seeks a yeast molecular geneticist or molecular biologist with extensive postdoctoral experience to set up a group to study the function of mammalian genes discovered by positional cloning. The successful candidate is likely to have had experience of the yeast two hybrid system and general complementation and recombination methods. Some familiarity with the use of yeast in high throughput screening would be an advantage.

MOLECULAR POPULATION GENETICIST

As part of Sequana's comprehensive approach to complex genetics, we seek to expand our genetics department to gain the ability to test rapidly candidate and *bona fide* genes involved in the progression of disease. To this end, we require a molecular biologist with experience in population genetics to establish a program for the development of high throughput methods to test specific genes in large, ethnically diverse populations of humans and non-human primates. The ideal candidate will have several years of relevant postdoctoral training, in-depth understanding of population genetics, and substantial computational experience.

Sequana offers a highly competitive salary plus stock options, and housing assistance where appropriate. Sequana's executive offices and laboratory facilities are located in a science park across from The Scripps Research Institute, about one mile from UCSD and the Salk Institute, in beautiful La Jolla, California.

PLEASE MAIL OR FAX CV TO:

Sequana Therapeutics, Inc.

Fax: (619)452-6653

ATTN: Human Resources/cg.yg

**11099 North Torrey Pines Road, Suite 160
La Jolla, CA 92037**

**S E Q U A N A
T H E R A P E U T I C S**

Chair, Department of Veterinary Pathobiology. The University of Missouri-Columbia invites applications/nominations for the position of Chair of the Department of Veterinary Pathobiology. This department is a new administrative unit formed by the merger of the Departments of Veterinary Microbiology and Veterinary Pathology. The new department will have over 30 faculty and 35 graduate students. The Research Animal Diagnostic and Investigative Laboratory and the Veterinary Medical Diagnostic Laboratory are units within the department. Candidates must be scientists of national stature with suitable academic credentials, excellent interpersonal and communication skills, professional credibility and personal integrity: a record of successful administrative experience is desirable. Preference will be given to DVM's and/or Ph.D.'s who have the vision to deal with changing social and educational issues affecting the veterinary profession, are able to develop innovative departmental programs, and have a firm commitment to affirmative action/equal opportunity. The Chair reports directly to the Dean and sits on the Executive committee which advises the Dean and helps formulate college policy. He/She will be charged with enhancing and promoting excellence in research and teaching. The appointee is expected to continue a personal program of scholarly activity and stimulate faculty toward high scholarly achievement. A major objective of this department is to establish a high quality research program, and preference will be given to candidates with a sustained record of extramural support and experience in research program building. Experience in research relation to animal agriculture is particularly desirable; however, outstanding candidates in other fields are encouraged to apply. The University of Missouri-Columbia campus has unique opportunities for collaboration in multidisciplinary research programs through interaction with Animal Science, Molecular Biology, and various research groups within the School of Medicine. Applicants should submit a letter of application, statement of goals, curriculum vitae, and the names of three references. Deadline for application is October 1, 1994, or until an acceptable candidate is found. Nominations and applications should be sent to Dr. Harvey S. Gosser, Chair, Veterinary Medical Diagnostic Laboratory, P.O. Box 6023, Columbia, MO 65205. Telephone #314-882-6811. FAX #314-882-1411.

The University of Missouri-Columbia is an affirmative action/equal opportunity employer and complies with the guidelines of the Americans with Disabilities Act of 1990. If you have special needs as addressed by the ADA and need assistance with this or any portion of the applications process, notify us at the address or telephone number above as soon as possible. Reasonable efforts will be made to accommodate your special needs.

The Health and Environmental Review Division (HERD) of the Office of Pollution Prevention and Toxics of the USEPA is seeking health and environmental scientists with a Ph.D. or equivalent education and experience in one or more of the following areas:

1. Developmental/Reproductive Toxicology
2. General Toxicology
3. Inhalation Toxicology
4. Immunotoxicology
5. Ecotoxicology
6. Environmental Science/ Chemistry/Structure-Activity Relationships

HERD provides scientific expertise to evaluate data from studies on the effects of chemicals which could result in adverse effects to human health or the environment.

HERD is responsible for formulating, reviewing, and updating procedures and protocols used by industry in performing required testing of chemicals for effects on human health and the environment. The positions involve evaluating data assembled from various sources including literature searches and research projects concerning the effects of selected chemicals and classes of chemicals on human health and the environment. The positions also involve working on interdisciplinary teams in areas pertaining to toxic chemical control, pollution prevention, and the effects of specific industries and specific chemicals. These are non-laboratory positions at the GS 11-13 level. Salary range is from \$35,045 to 64,928.

For further information, please submit a completed government form SF-171 or a detailed resume with the names of 3 references and expected salary to:

Ms. Jackie Donaldson
USEPA
Health and Environmental Review, Division (7403)
401 M Street, SW
Washington, DC 20460

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Women in Science 1993: Gender & Culture, \$3.00. Full-color, 49 pages, from SCIENCE April 16, 1993. Sections: The Female Style; Industrial R&D; Science Education; A Case Study: Primatology. (Limited stock)

Women in Science 1992: Survey issue, \$3.00. Full-color, 28 pages, from SCIENCE March 13, 1992. Sections: Profile of a field: Neurosciences, Chemistry, Mathematics; Key Issues: Mentoring, Two-career Science Marriage, Datapoints. (Limited stock)

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WISHAD 5/94

Post-Doctoral Fellowship

In vivo Magnetic Resonance Spectroscopy (MRS)

A two year fellowship is available at the McLean Brain Imaging Center to perform in vivo proton spectroscopic editing experiments. Candidates must have completed a Ph.D. with an emphasis on the use of nuclear magnetic resonance spectroscopy. Previous experience with in vivo MRS and good interpersonal skills are helpful. The Brain Imaging Center houses a 1.5T GE scanner with a multinuclear MRS capability and an Advanced NMR Systems echo planar coil. Ample machine time will be provided for human MRS studies and opportunities exist for the use of high resolution and animal MR systems located at nearby institutions.

McLean Hospital is a Harvard-affiliated private psychiatric hospital located eight miles from Boston in Belmont, MA and is an equal opportunity employer. Please send letter of interest, CV, and the names of three references to Perry F. Renshaw, M.D., Ph.D., Research Director, McLean Hospital Brain Imaging Center, 115 Mill Street, Belmont, MA 02178.



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The DuPont Merck Pharmaceutical Company has immediate openings at its facilities in Wilmington, DE for the following:

ASSOCIATE DIRECTOR - CNS NEW NEUROBIOLOGY

This Senior Molecular Biologist will directly assist the Director of the CNS Department in guiding 5 Ph.D. and 16 Associate Scientists in gene cloning, transfection/expression, transgenic animal and antisense programs in a broadly-based CNS Drug Discovery Department.

This researcher will be recognized for significant contributions in Molecular Biology applied to the Nervous System. Familiarity with CNS Pharmacology is required and experience in CNS Drug Design is highly desirable.

As the Associate Director, this individual will be expected to generate innovative ideas for CNS drug design while planning, evaluating and leading multi-disciplinary scientific teams in new program directions. This position requires proven project and Ph.D. leadership abilities.

SENIOR/PRINCIPAL RESEARCH SCIENTIST-CNS

This Neuroscientist/Pharmacologist will be a member of a broadly based CNS Department emphasizing molecular approaches to drug design. This individual must be an accomplished researcher in the general fields of G-Protein-Coupled Receptors and their downstream targets and/or Second Messenger Systems from a Molecular and Biochemical perspective.

This Researcher will direct a group of Associate Scientists and directly contribute to multiple CNS Drug Discovery Projects. The Receptor Scientist who accepts this challenge will be responsible for both theoretical and laboratory aspects of multiple Radioligand Binding and Second Messenger Assays. Both Senior Researchers and recent Postdoctoral Scientists will be considered.

We can offer the successful candidates a highly stimulating scientific environment, a competitive salary and a comprehensive benefits package. For immediate consideration, please forward your resume to: Human Resources Dept. CNS-0729, The DuPont Merck Pharmaceutical Company, P.O. Box 80400, E400-2413D, Wilmington, DE 19880-0400. An equal opportunity employer.



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CELL DEATH / APOPTOSIS

IDUN Pharmaceuticals is an early stage biopharmaceutical company focussed on the discovery and development of drugs aimed at the therapeutic modulation of **cell death** with applications in cancer, degenerative diseases, and inflammation. IDUN invites applications from highly motivated, inventive scientists for the following positions:

Director of Molecular Biology - Ph.D./M.D. with proven ability to build and lead a basic and applied research team. Background and established reputation in molecular biology of cell death and/or signal transduction. Candidates should have comprehensive experience with molecular biological techniques, in particular expression cloning and interactive cloning, protein engineering and recombinant expression in microbial and mammalian systems, in vitro mutagenesis, and assay development. **ref: DMB**

Molecular Biologists - Ph.D. with postdoctoral experience and reputation in molecular genetics of cell death and/or intracellular signalling. Experience with bacterial, yeast, and mammalian cloning and expression, yeast two-hybrid cloning, in vitro mutagenesis, and assay development are essential. **ref: MBS**

Director of Biochemistry/Enzymology - Ph.D. with proven ability to build and lead a basic and applied research team. Background and established reputation in biochemical approaches to the study of cellular signalling pathways. Broad experience in biochemistry with a focus either in enzyme and protease structure/function or protein-protein interactions and protein purification. **ref: DBE**

Biochemists/Enzymologists - Ph.D. with postdoctoral experience. Candidates should have extensive experience using state of the art protein purification techniques. Of particular interest are enzymologists interested in the role of proteases and other enzymes in cell death and/or signal transduction. **ref: BES**

Cell Biologists - Ph.D. with postdoctoral experience and reputation in cell biological approaches to cell death and/or intracellular signalling. Experience in primary culture and characterization of non-dividing (cardiac and neuronal) and other (lymphoid) cells, heterologous gene expression in mammalian cells, immunocytochemical and FACS analysis, assay development. **ref: CBS**

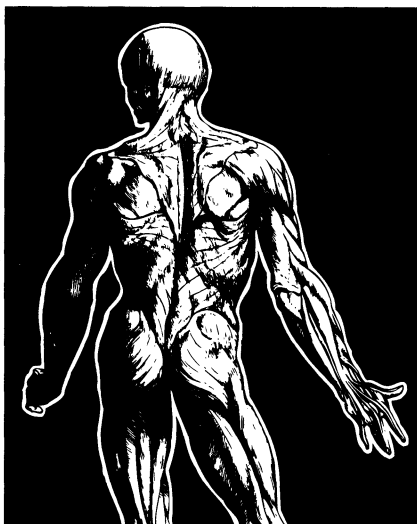
Drug Screening - Ph.D. with pharmaceutical experience in the design, implementation and validation of state of the art, high throughput drug screening systems, including robotics and compound acquisition/inventory; interface with cell and molecular biology and medicinal chemistry. **ref: DSS**

IDUN Pharmaceuticals' modern, 12,000 sq. ft. laboratory facility is located in La Jolla, CA, close to several outstanding academic centers. IDUN offers the excitement of a start-up company in a rapidly growing scientific field, as well as an attractive compensation package. For confidential consideration, please FAX (619) 623-2765 or mail your c.v. (include reference code above) to IDUN Pharmaceuticals, 3050 Science Park Rd. Suite 200, San Diego, CA 92121.

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OCTOBER 2-5, 1994

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CONFERENCE AGENDA

SUNDAY, OCTOBER 2

Welcoming Reception

MONDAY, OCTOBER 3

Plenary Session I: Genome Analysis – The New Frontier

*"Human Gene Identification by Positional
Cloning"*

Dr. Francis Collins, National Center for
Human Genome Research

*"Genetic Basis of Human Colorectal
Cancer"*

Dr. Bert Vogelstein, Johns Hopkins
Oncology Center

*"Mapping Genes and Genomes: Genetic
Dissection of Complex Traits"*

Dr. Eric Lander, Whitehead Institute/
MIT

"Human Genome Diversity"

Dr. Mary Claire King, University of
California, School of Public Health

"Manipulating Cancer Genes in the Mouse"

Dr. Harold Varmus, National Institutes
of Health

*"Intellectual Property: DNA and its
Offspring"*

Dr. Kate Murashige, Morrison &
Foerster

*"Presymptomatic Diagnosis of Self and
Progeny"*

Dr. C. Thomas Caskey, HUGO

Concurrent Sessions

M1 *"New Methods of DNA-Based
Diagnosis"*

Dr. Stephen P.A. Fodor,
Affymetrix, Inc.

M2 *"Human Gene Identification"*

Dr. Kay E. Davies, Institute of
Molecular Medicine, University
of Oxford

M3 *"Social and Scientific Issues in
Genetic Testing"*

Dr. Nancy Wexler, Hereditary
Disease Foundation

M4 *"Gene Therapy"*

Dr. Inder M. Verma, The Salk
Institute

TUESDAY, OCTOBER 4

Plenary Session II: Development and Signal Transduction

**Special Guest: Donna Shalala, U.S.
Department of Health and Human
Services**

"MYOD & Myogenesis"

Dr. Harold Weintraub, Fred
Hutchinson Cancer Research Center

"Genome Analysis in the Mouse"

Dr. Shirley M. Tilghman, Princeton
University

"Pax: Genes for Mice and Men"

Dr. Peter Gruss, Max Planck Institute
of Biophysical Chemistry, Germany

*"From an Interferon Clone to the
Regulation of Oncogenesis"*

Dr. Tadatsugu Taniguchi, Institute for
Molecular and Cellular Biology,
Osaka University

"C. elegans Genome Project"

Dr. Richard Wilson, Washington
University Medical School

*"Small GTPases – Switching on Biological
Responses"*

Dr. Alan Hall, MRC Laboratory for
Molecular Cell Biology, U.K.

Concurrent Sessions

T1 *"Gene Targeting"*

Dr. Elizabeth Robertson, Harvard
University

T2 *"Sequence to Function"*

Dr. Temple F. Smith, Biomolecular
Engineering Research Center,
Boston University

T3 *"Education and the Human Genome
Project"*

Dr. Paula Gregory, National Center
for Human Genome Research, NIH

T4 *"Chromatin Structure and the
Regulation of Gene Expression"*

Dr. Gary Felsenfeld, Laboratory of
Molecular Biology, NIH

WEDNESDAY, OCTOBER 5

Plenary Session III: Mapping

*"Toward the Ultimate Generation of an
Integrated Map of the Human Genome"*

Dr. Daniel Cohen, C.E.P.H., France

*"Application of High Resolution Genetic
Maps to Studies of Common Disorders"*

Dr. Jeffrey C. Murray, University of
Iowa

"Yeast Genome Project"

Dr. André Goffeau, Université
Catholique de Louvain, Unité de
Biochimie Physiologique

*"The Drosophila Genome Project – a
Progress Report"*

Dr. Gerald M. Rubin, University of
California

*"Status and Prospects for the Complete
Human Genome Sequence"*

Dr. Richard A. Gibbs, Baylor College
of Medicine

*"High Speed DNA Sequencing: Present and
Future Technologies"*

Dr. Lloyd M. Smith, University of
Wisconsin

"Towards a Complete Set of Human Genes"

Dr. J. Craig Venter, The Institute for
Genomic Research

Plenary Session IV: Mapping and Applications

*"Vertically Integrated Mapping and
Sequencing of Human DNA"*

Dr. Maynard Olson, University of
Washington School of Medicine

"Interpreting Genes and Genomes"

Dr. David J. Lipman, NIH, National
Library of Medicine

"Some Applications of a Genome Library"

Dr. Melvin Simon, California Institute
of Technology

"Huntington Disease"

Dr. James F. Gusella, Massachusetts
General Hospital

"Ancient DNA"

Dr. Svante Pääbo, Zoologisches
Institut, Universität München

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NEUROSCIENCE POSTDOCTORAL POSITIONS UNIVERSITY OF CHICAGO

Five postdoctoral positions are available in the laboratories of Neil Harrison, Ph.D. and Donna L. Hammond, Ph.D. in the Department of Anesthesia & Critical Care and the Committee on Neurobiology. Four positions are funded by NIH grants to examine the molecular, cellular and systems bases of drug action in the CNS; the fifth is dependent on receipt of non-federal funding. A strong neuroscience background is preferred, but not required.

PD1: This project examines interactions between anesthetic agents and GABA receptors using molecular biology techniques and patch-clamp electrophysiology. Experience in one or the other is desired.

PD2: This project examines the role of GABA and GABA receptors in nociceptive processing at spinal and supraspinal sites. Familiarity with GABA receptor pharmacology, intracerebral microinjection techniques, and assessment of pain behavior in unanesthetized rodents is desired.

PD3 (2 slots): This project examines the role of supraspinal delta-1 and delta-2 receptors in antinociception and their interaction with spinal opioid receptors. Familiarity with intracerebral or intrathecal microinjection techniques, assessment of pain behaviors in unanesthetized rodents, and opioid receptor pharmacology is desired.

PD4: This last project examines the effects of GABAergic and opioid receptor on synaptic transmission in brainstem and spinal cord slice preparations using patch-clamp methods. Experience with patch-clamp or slice preparations is mandatory.

Individuals should apply by letter, including a curriculum vitae and the names and fax numbers of 3 persons familiar with your accomplishments, to: Ms. Tanya Hagerman, Department of Anesthesia & Critical Care, 5841 S. Maryland Ave. MC 4028, University of Chicago, Chicago, IL 60637. Please identify the position(s) in which you are interested.

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

POSTDOCTORAL POSITION

A senior postdoctoral position is available in the Microbiology Section. Laboratory of Molecular Oncology, Biological Carcinogenesis Program, Division of Cancer Etiology, National Cancer Institute, National Institutes of Health, Public Health Service. The position involves the study of neuropathogenic and endothelial cell tropic murine retrovirus and the mechanism of its neuropathogenicity. Additionally, the project involves the identification, at the molecular level, of the viral and host factors that confer endothelial cell tropism to the virus and application of the virus to an animal model for endothelial cell-targeted gene therapy for cancer. Work in progress has demonstrated a possibility of a unique virus-receptor interaction on capillary endothelial cells.

The program is looking for an individual with 5 or more year's experience working with murine retroviruses, who has extensive skills in recombinant DNA techniques and mammalian cell culture, including establishment of capillary and endothelial cell lines. Knowledge of retrovirology, oncology, neurology, and endothelial cell physiology is required. Application for U.S. Public Health Service postdoctoral positions are limited to individuals with U.S. citizenship or U.S. permanent residency status. Salary range: \$35,000-\$40,000. Submit curriculum vitae and three letters of recommendation within 30 days of the date of the publication to: Dr. James Lautenberger or Dr. Sandra K. Ruscetti, Laboratory of Molecular Oncology, NCI-FCRDC, Bldg. 469, Frederick, MD 21702-1201 (telephone: 301-846-5740).

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SCIENCE AND ENGINEERING FELLOWSHIPS IN JAPAN

The National Science Foundation (NSF) offers opportunities for research in Japanese universities, national research institutes, and corporate research facilities. Applicants must be U.S. citizens of permanent residents.

These fellowship programs are conducted in cooperation with the Center for Global Partnership (CGP) and other Japanese organizations. Awards are available for graduate students, postdoctoral fellows, and senior investigators for 3-24 month research visits in Japan for (deadlines are indicated in parentheses):

- Long and Medium Term Research (November 1, April 1)
- Short Term for Cooperative Research (May 15)
- Dissertation Enhancement (November 1, April 1)
- Summer Institute for Graduate Students in Science and Engineering (December 1)

Awards are also available for Bilateral Seminars in Japan or the United States (May 15).

To apply for these programs, you may request the program announcement "International Opportunities for Scientists and Engineers" NSF 93-51 (Revised 11/93). This publication is available through STIS (Science and Technology Information System), NSF's online publishing system, described in NSF 94-4, "STIS flyer." To receive a paper copy of the flyer, call the NSF Publications Section at 703-306-1130. For an electronic copy, send an E mail message to stisfly@nsf.gov (Internet) or stisfly@nsf (BITNET). The TDD number is (703) 306-0090.

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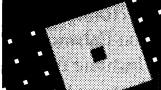
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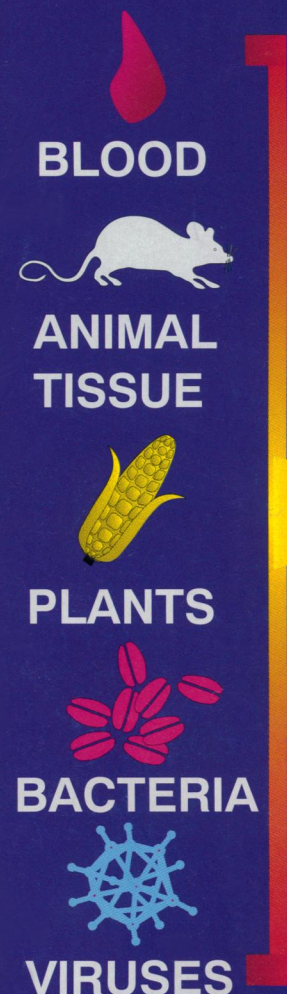
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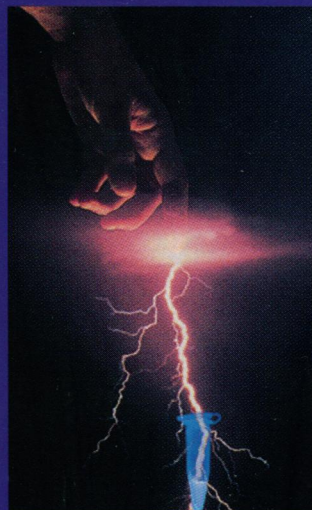
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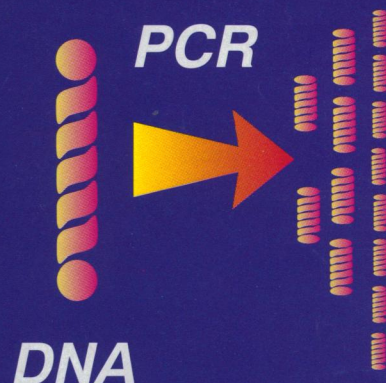
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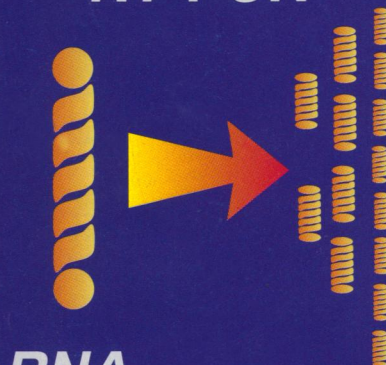
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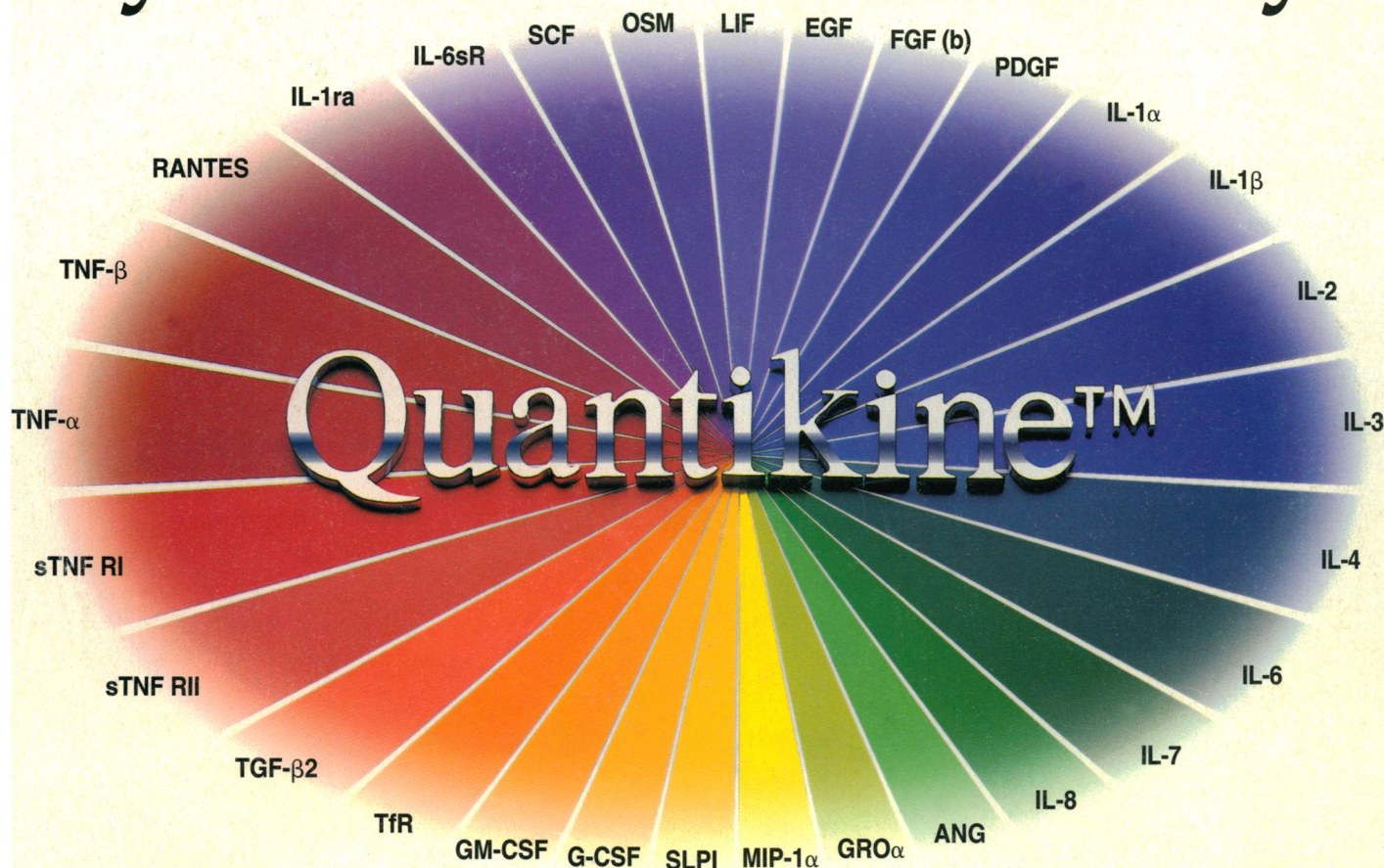
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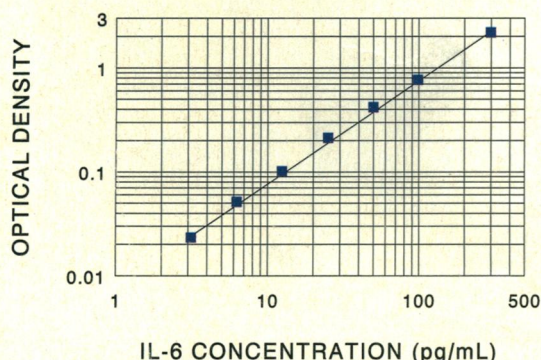
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