

**BIOLOGY,
EPIDEMIOLOGY
AND
TREATMENT OF CANCER**

13th—15th of October 1991
Stockholm, Sweden

A symposium arranged
by the Swedish Cancer Society,
the major sponsor of Swedish cancer research,
in celebration of its 40th anniversary.

Topics:

- The genetic basis for cancer
- Oncogenes and suppressor genes
- From experimental oncology towards clinical application
- Cellular immunology
- Growth factors and differentiation factors
- Epidemiology

Invited speakers include:

Fred Alt, New York, John Cairns, Boston, Mario Capecchi, Salt Lake City, Tadimitsu Kishimoto, Osaka, George Klein, Stockholm, Thomas Lindahl, London, Cornelis Melief, Amsterdam, Michael Sporn, Bethesda, Thomas Waldman, Bethesda, Robert Weinberg, Cambridge, USA.

Application deadline 15 th of August 1991

For further information, please write to:

Swedish Cancer Society,
Box 17096, S-104 62 Stockholm, Sweden.
Telephone +46 8 772 28 00 Telefax +46 8 720 22 08

AAAS Student Research Awards

To encourage the development of young scientists and to recognize their achievements in all fields of scientific research, the American Association for the Advancement of Science will highlight exceptional research by college and university students in a special poster session at the AAAS Annual Meeting, 6-11 February 1992, in Chicago. Undergraduate students and graduate students who wish to be considered for this distinction can apply by submitting brief abstracts of their research.

Accepted applicants will have the opportunity to present their research to AAAS members in a one-on-one poster session at the Annual Meeting, and their abstracts will be published in the Annual Meeting *Program*. In addition, a panel of distinguished scientists will evaluate the poster presentations. The students with the best presentations in their fields will receive cash awards and be recognized during the AAAS awards ceremony at the Annual Meeting.

For complete instructions on how to submit abstracts, watch for the "Call for Papers" in the 6 September 1991 issue of *Science*, or write: AAAS Meetings, Dept. SM, 1333 H Street, NW, Washington, DC 20005. (Deadline for abstracts is 1 November 1991.)

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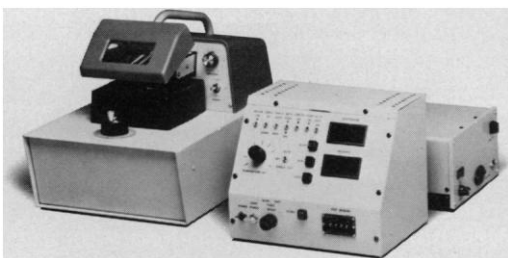
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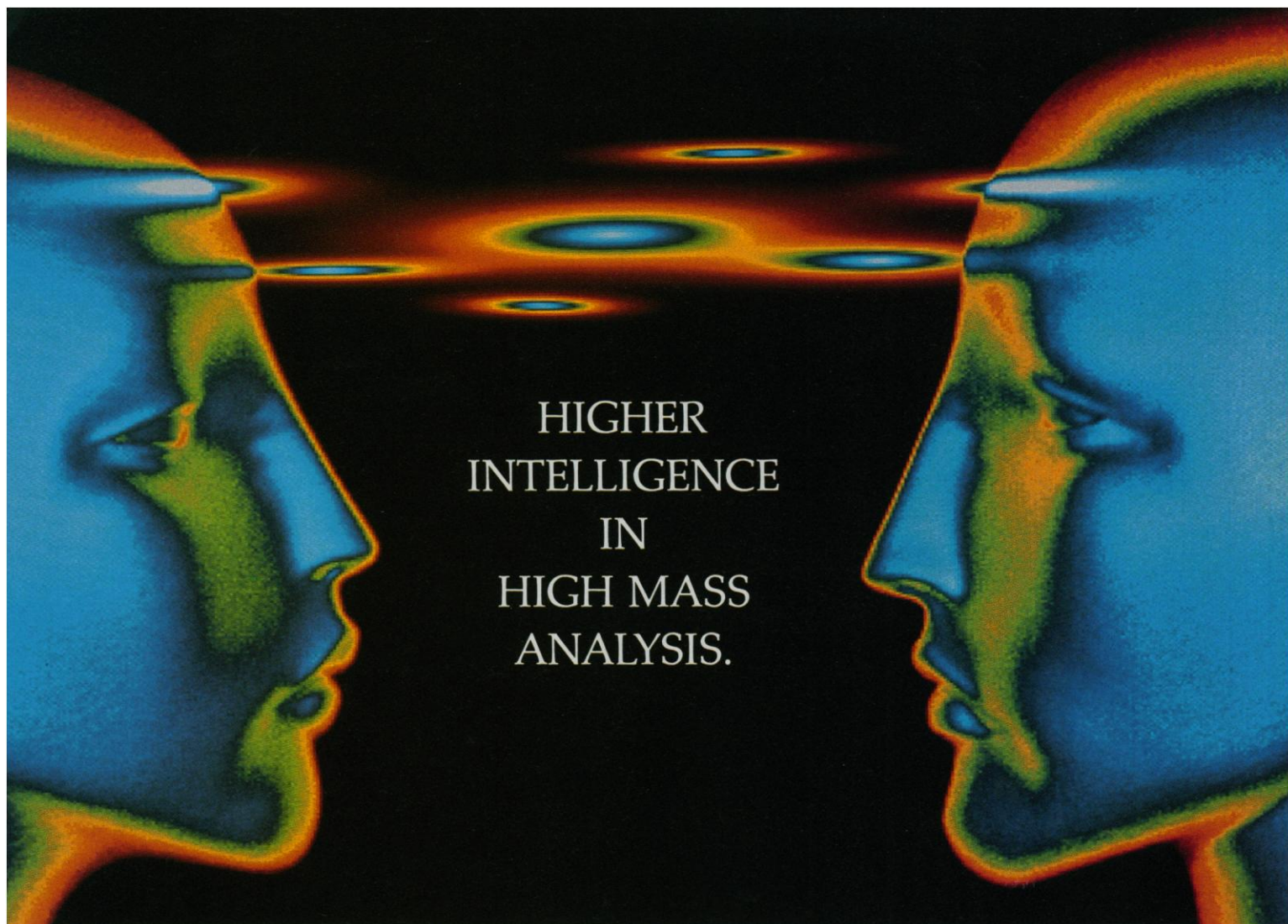
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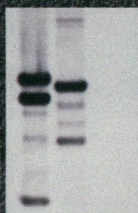
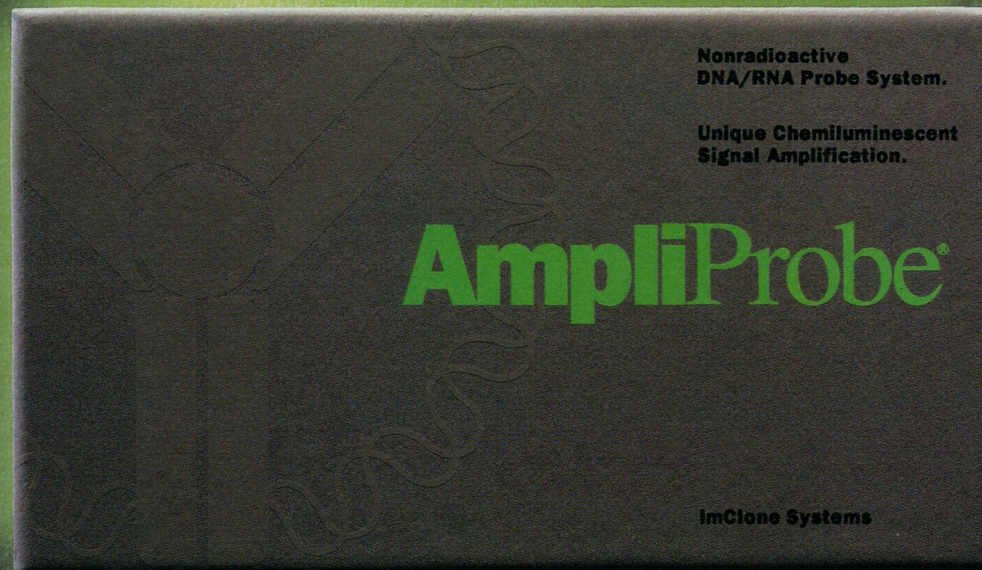


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Software for Numerical Taxonomy

NTSYS-pc is software used for both teaching and research in systematics, community ecology, and many other fields to discover pattern and structure in multivariate data. Data transformations and the computation of similarity, association, and genetic distance coefficients are built in. Hierarchical cluster analysis and graph theoretical methods include single-link, minimum spanning trees, and the neighbor-joining method. NTSYS-pc requires an IBM PC, PS/2, or compatible computer, DOS 3.0 or higher, 512K random access memory, and 1-megabyte disk space. A graphics adapter (CGA, EGA, VGA, 8514, or Hercules) is required for on-line graphics. Applied Biostatistics. Circle 475.

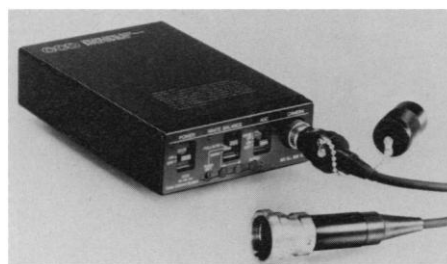
Gel Blotting Papers

GB0 gel blotting papers are high-quality, cotton linter papers for all blotting, drying, and wicking applications. The papers will not leach contaminants onto a blot and cost less than the chromatography papers and paper towels typically used for these applications. Three grades are available: GB002 for gel support and drying, GB003 for electroblotting or vacuum blotting, and GB004 for wicking. Schleicher & Schuell. Circle 476.

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.

Small Soakable Video Camera

Model EM-102II SKL is a micro charge-coupled device (CCD) video camera that is designed to withstand up to 1 hour of soaking and disinfecting liquids. It is one of the world's smallest and lightest CCD color cameras available and offers wide applications for rigid and flexible endoscope use



and medical, scientific, and clean-room technology. The camera head is 1.2 inches in diameter and 3 inches in length. It is connected to the control unit by a 10-foot cable. The high-speed shutter is adjustable from 1/60 second to 1/1000 second to freeze rapid action and produce clear still frames and slow motion in playback. Elmo Manufacturing Corporation. Circle 477.

Hand-Held Computer System

The hand-held computer system consists of a battery-operated, hand-held computer with RS-232 port and 40-column impact printer. The 5.5 inch by 3 inch by 1 inch computer can be used to update, create, print, and transfer files back and forth from a personal computer. The computer features a four-line by 20-character display, 32K of random access memory, and built-in pro-



grams for managing database and notepad files, expense reports, appointment calendar, complex calculations, and communications. It is powered by a rechargeable battery and comes with recharger. Exttech Instruments. Circle 478.

Enzyme Cleaner for Fermentation Residues

TERG-A-ZYME enzyme detergent cleans a wide range of bioprocess equipment, from benchtop bioreactors in laboratories to scale-up units in pilot plants, as well as large fermentation systems used in pharmaceutical production. It can also be used for cleaning both suspension and anchorage-dependent cell culture systems and for removing cell debris without abrading reusable glass culture vessels. It is an effective presoak for proteinaceous soils such as blood, tissue, and fluids. Alconox. Circle 479.

Literature

The *ATCC Catalogue of Yeasts, 18th Edition, 1990* lists more than 4000 yeast strains available. The catalog provides strain descriptions, including genotypes, source of isolation, literature references, media formulas, special applications, and more. American Type Culture Collection. Circle 480.

Summary of Clustered and Non-Clustered Immunological Markers is a wall chart with information on 104 monoclonal antibodies. Janssen Biochimica. Circle 481.

Laboratory Equipment 1991/92 is a 20-page color catalog that describes temperature control products, including immersion circulators, heating baths, temperature cyclers, circulation systems, a hybridizer, bioreactor systems, density gradient columns, biological stirrers, and more. Technic. Circle 482.

A new eight-page brochure describes a line of graphical data acquisition, analysis, and process control software. Labtech. Circle 483.

Products and Services for Life Sciences is a 170-page catalog covering peptides, enzyme substrates, and neuroactive amino acids; sugars, carbohydrates, and related biochemicals; immunological products; pin technology; molecular biology; and custom services. Cambridge Research Biochemicals. Circle 484.

Life Science Network is a new on-line end-user service that gives the user access to 80 databases in the life sciences and related disciplines, including the *BIOSIS Previews* and *BIOSIS Connection* databases. BIOSIS. Circle 485.

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Personnel Placement

LINE CLASSIFIED ADVERTISEMENTS

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

HOW TO SUBMIT A CLASSIFIED AD: Prepare double-spaced typewritten ad copy on a separate sheet. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Deadline for applications stated in ad must be at least 2 weeks after date of publication. Also include a cover sheet which gives name and phone number of contact person, desired date of publication, and billing information, including any special invoicing requests. Mail or FAX materials to:

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

CLASSIFICATIONS: *Science* publishes line classified ads under the following headings: **Positions Open, Employment Agencies, Situations Wanted, Courses and Training, Meetings, Announcements, and Marketplace.** Advertisers should specify classification desired.

HOW TO CALCULATE RATE FOR CLASSIFIED AD: Ads are \$41 per line with a \$410 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces.

To ESTIMATE ad cost, count total number of 52 character lines and multiply by \$41 to find approximate cost of ad per week. Each line of centered heading counts as one line. Also count one line for white space between headline and first line of text; all partial lines are also counted as full lines (including all centered reply information).

Remember, this is a rough estimate only. Allow for variation between estimated typewritten lines and ads when actually typeset for magazine. Therefore, purchase orders must allow additional funds for flexibility and/or adjustment. *Science* cannot provide proofs of typeset ads.

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

CREDIT CARDS: *Science* accepts MasterCard and VISA. Both personal and corporate cards may be used. Prepayment does not apply to credit cards.

BOXES AND LOGOS: Any line classified ad can be boxed and/or published with logo to increase its visibility on page. Since the box takes up additional space, one line now equals 48 characters and spaces; two additional lines will be added to allow for top and bottom rules. Logos are billed according to the number of lines needed to fit logo in space.

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

DISPLAY PERSONNEL ADVERTISEMENTS

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

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CONDITIONS: Personnel advertising is accepted only with the understanding that the advertisers do not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference. *Science* reserves the right, at its discretion, to decline to publish advertisements submitted to it and to decline classifications which it considers misleading.

POSITIONS OPEN

ASSISTANT PROFESSOR

The Department of Pathobiology at the University of Washington announces an immediate faculty position opening in the area of growth regulation. Requires a Ph.D. with at least 5 years of postdoctoral research experience in cellular and molecular biology of growth regulatory molecules and their receptors, with broad experience in cDNA cloning, sequencing and expression in recombinant microbial and eukaryotic hosts; regulation of gene expression; protein structure/function relationships. Expertise with computer-based structural analysis of genes and proteins is required. The successful candidate is also expected to participate in teaching and precepting graduate students in the department. Applicants should send a letter of interest, curriculum vitae, and names and addresses of three references to: **Chair, Search Committee, Department of Pathobiology, SC-38, University of Washington, Seattle, WA 98195.** The application deadline for this position is 15 August 1991.

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

Position available for animal sleep research laboratory at Emory University School of Medicine. Position is research track (nontenured) **ASSISTANT PROFESSOR** of psychiatry and for 1 year from September 1991 to September 1992. Applicant must have expertise in the following areas: sleep research and single unit recording in freely behaving animals. Send curriculum vitae, names and addresses of two references and three published reprints demonstrating such expertise to: **Gerald W. Vogel, M.D., Sleep Laboratory, Georgia Mental Health Institute, 1256 Briarcliff Road NE, Atlanta, GA 30306.** *Emory University is an Affirmative Action/Equal Opportunity Employer.*

The Department of Neurosurgery at Stanford University School of Medicine is currently seeking a full-time faculty member to study basic mechanisms involved in the pathophysiology and pharmacological treatment of cerebral ischemia. The position is at the rank of **RESEARCH ASSISTANT PROFESSOR.** *Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.*

The candidate should have a Ph.D. and/or M.D. and have a strong background in cerebrovascular physiology. It is expected that the candidate will spend 100% of their time devoted to research, and demonstrate the ability to become an independent investigator as well as generate funding from external sponsored projects.

Reply to: **Gerald D. Silverberg, M.D., or Gary K. Steinberg, M.D., Ph.D., Stanford, University School of Medicine, R155, Stanford, CA 94305-5327.**

FACULTY POSITION ASSISTANT PROFESSOR

MARINE ECOLOGIST. The University of Oregon invites applicants for a tenure-track faculty position in the Department of Biology at the level of assistant professor. The successful candidate will be based at the University's Oregon Institute of Marine Biology in Charleston, and will be expected to interact closely with faculty and students at the main campus in Eugene.

Applicants should have a strong background in marine ecology and will be expected to establish an active research program, advise graduate students, and teach in marine ecology. Postdoctoral experience is expected. Preference will be given to candidates with an established record of outstanding research and a commitment to excellence in undergraduate and graduate education.

Submit curriculum vitae, a statement of research interests, and the names of four references to: **The Marine Ecology Search Committee, Oregon Institute of Marine Biology, University of Oregon, Charleston, OR 97420.** Closing date: 15 September 1991. *Equal Opportunity/Affirmative Action institution committed to cultural diversity.*

RESEARCH ASSISTANT/ASSOCIATE PROFESSOR. Tulane University/Cardiology. To work in the area of mechanisms of neutrophil-mediated myocardial injury. Background in cardiovascular physiology, pharmacology, or pathology desirable. Send curriculum vitae and three references to: **Dr. Andrew J. Buda, Chief, Cardiology Section, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112.** *Tulane is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR CELL BIOLOGY

The Department of Zoology at the University of Texas at Austin invites applications for a tenure-track faculty position (assistant professor). Candidates should be actively engaged in research on fundamental problems of cell biology. Areas of interest include cell growth, development and differentiation, receptors and growth factors, the cytoskeleton, cell-cell interactions, and signal transduction. However, all areas of cell biology will be considered.

Submit curriculum vitae, names of three to five persons who can provide letters of recommendation, and a brief description of research interests to:

**The Chairman
Cell Biology Search Committee
Department of Zoology
The University of Texas at Austin
Austin, TX 78712**

Applications should be submitted by 15 October 1991.

The University of Texas at Austin is an Affirmative Action/Equal Opportunity Employer.

HAROLD H. BAILEY PROFESSOR OF BIOLOGY VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

The Department of Biology invites applications and nominations for the Harold H. Bailey Professor of Biology. We are seeking an internationally recognized scholar whose research uses modern approaches in addressing fundamental biological questions in the field of vertebrate biology (broadly defined). It is expected that the Bailey Professor will contribute to the instructional mission of the university and conduct original research of the highest caliber. Applicants should be at the rank of full professor or very close to being promoted to full professor.

Application materials should include curriculum vitae, a statement of anticipated future research directions, and names of three potential references. Applicant evaluation will begin 15 October 1991 and will continue until the position is filled. Applications and nominations should be sent to: **J. R. Webster, Chairman, Bailey Search Committee, Department of Biology, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061.**

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

UNIVERSITY OF TORONTO DEPARTMENTS OF CLINICAL BIOCHEMISTRY AND MEDICINE ASSISTANT PROFESSORS

Applications are invited for three positions at The Toronto Hospital (a 1300-bed Tertiary Referral Hospital affiliated with the University of Toronto).

CLINICAL EPIDEMIOLOGIST/TECHNOLOGY ASSESSMENT: M.D., FRCP (or equivalent) with training in clinical epidemiology to develop an independently funded research program related to the effective use of diagnostic laboratory resources and to participate in general medical practice at The Toronto Hospital.

CLINICAL INVESTIGATOR: M.D., FRCP (or equivalent) specialized in metabolism and endocrinology; training or experience in medical biochemistry is an advantage; to supervise a specialized analytical biochemistry laboratory for clinical investigation and to carry out clinical research through the Clinical Investigation Unit.

CLINICAL GENETICIST: M.D., CCMG, or ABMG eligible/certified to provide consultation and develop research related to adult genetic disease.

Laboratory space, start-up funds, and appointments in the Graduate School will be available.

The University of Toronto encourages both men and women to apply for this position. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

Interested persons should direct enquiries and applications no later than 31 October 1991 to:

**Dr. A. D. Baines
Biochemist-in-Chief
Department of Clinical Biochemistry
ES 3-404D, Toronto General Division
200 Elizabeth Street
Toronto, Ontario, M5G 1L5 Canada**

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOCHEMISTRY IN UROLOGY

The Division of Urology and the Department of Biochemistry at the Case Western Reserve University School of Medicine seeks applications for the position of assistant professor of biochemistry in medicine. Preferences will be given to candidates with training in protein chemistry (Ph.D. or M.D.) with 2 to 3 years of postdoctoral experience. Individuals with expertise and interest in urolithiasis and/or prostate-related research are preferred but those with experience in other disciplines will be considered as well. Applicants should be capable of developing a funded research program and be committed to the teaching of graduate and undergraduate students. To apply, send curriculum vitae and names of three references to:

Martin I. Resnick, M.D.
Chief, Division of Urology
Case Western Reserve University
2074 Abington Road
Cleveland, OH 44106

Deadline for application is 1 September 1991. Case Western Reserve University is an Equal Opportunity Employer.

FACULTY POSITION

The Department of Developmental and Cell Biology, University of California, Irvine, is seeking to fill a position as **ADJUNCT ASSOCIATE PROFESSOR** at a salary of \$43,100. The person recruited for this position must have at least 5 years of experience investigating the application of microscope-based lasers to cell genetics in culture. A working knowledge of laser biophysics, cell biology, and genetics is essential. The candidate must have actual experience in the manipulation of chromosomes and cells with laser beams through the microscope, and this must be documented by publications. Experience in training graduate students must also be documented. A high level of skill with optical microscopes is required. Please send curriculum vitae, copies of significant recent reprints, concise statement of research accomplishments, and the names of three references with addresses to: **Professor Michael W. Berns, Beckman Laser Institute and Medical Clinic, 1002 Health Sciences Road East, Irvine, CA 92715**, before 31 August 1991. The University of California is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.

HEAD

DEPARTMENT OF HUMAN ANATOMY AND MEDICAL NEUROBIOLOGY TEXAS A&M HEALTH SCIENCE CENTER COLLEGE STATION, TEXAS 77843

The College of Medicine is seeking a head (chair) for the Department of Human Anatomy and Medical Neurobiology. The successful candidate should have a well-demonstrated commitment to teaching excellence in the classical subdivisions of anatomy and possess the organizational and administrative skills to facilitate the growth and development of the Department of Human Anatomy and Medical Neurobiology. Reflected in the new name change effective 1 September 1991, the department is assuming a new orientation which embraces the neurosciences. As part of this new direction, the department head will be expected to foster the neurosciences at Texas A&M University by way of a vigorous interaction of the department in campus-wide programs and the development of a strong neuroscience component to our graduate program in medical sciences. It would be advantageous if the candidate had extramural research funding and publications in the area of neuroscience although other research areas shall also be considered.

This is an excellent opportunity for an innovative and energetic individual to develop a nationally recognized department and develop interactions within a broad-based university.

Applications should consist of a résumé and the names of three persons from whom we may request letters of reference. Respond to:

Julius A. Gordon, M.D., Chair
Anatomy Search Committee
Pathology and Laboratory Medicine
College of Medicine

Texas A&M University Health Science Center
College Station, TX 77843-1114

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

POSITIONS OPEN

ASSISTANT PROFESSOR, DEPARTMENT OF PHYSIOLOGY, UNIVERSITY OF TORONTO. Applications invited for a non-tenure stream appointment. Qualifications: Ph.D. or M.D. degree and postdoctoral research experience in metabolic control with interest in diabetes. Duties: research and teaching in undergraduate and graduate programs. Applications, including curriculum vitae and names of three referees, should be sent before 1 October 1991 to: **Dr. U. Ackermann, Department of Physiology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada M5S 1A8.** The University of Toronto encourages applications from qualified women and men, members of visible minorities, aboriginal peoples and persons with disabilities. In accordance with Canadian immigration requirements, this advertisement is directed firstly to Canadian citizens and permanent residents.

RESEARCH ASSISTANT PROFESSOR

The Department of Biochemistry and Molecular Biology seeks M.D. or Ph.D. immunologist with a minimum of 2 years of postdoctoral experience in biochemistry and animal handling. Candidates should have a demonstrated ability to perform immunologic tests as well as surgical animal experience. Duties include development of in vivo assays and development of new projects in the field of hematology and transplantation immunology. Salary: \$34,000 to \$40,000. Good writing and communication skills essential. Please send résumé to: **Dr. Aleyda V. Kasten, 337 Basic Science Building, 3900 Reservoir Road, Washington, DC 20007.** Georgetown University School of Medicine is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT RESEARCH PROFESSOR. Position is available in a group studying the mechanism and regulation of eukaryotic protein synthesis. Projects involve the mechanism of mRNA recruitment into polysomes, regulation of initiation factor activity by phosphorylation, and the effects of oncogene expression on protein synthesis and growth control. Starting salary is \$37,500 with fringe benefits. Please send curriculum vitae and names of three references to: **Dr. Robert E. Rhoads, Department of Biochemistry, University of Kentucky College of Medicine, Lexington, KY 40536-0084.** Deadline for applications: 26 August 1991. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR. The Department of Pharmacology at the University of South Florida College of Medicine (USFCOM) invites applications for tenure-track faculty positions at the assistant/associate professor level, depending on experience. Applicants must have a Ph.D. or equivalent in pharmacology, neuroscience, or a related discipline with a minimum of 3 years postdoctoral experience. Individuals are expected to establish independent research programs, obtain extramural grant support, and contribute to teaching medical and graduate students. Under new leadership, the department is seeking outstanding scientists working within the broad area of neuropharmacology, with an emphasis on individuals with a strong background in molecular neurobiology and an interest in aging. Applicants should submit curriculum vitae, statement of research interests and future plans, and the names of three references to: **Lynn Wecker, Ph.D., Professor and Chair, Department of Pharmacology, MDC Box 9, USFCOM, 12901 Bruce B. Downs Boulevard, Tampa, FL 33612-4799.** Applications must be received by 30 September 1991. The University is an Affirmative Action/Equal Opportunity Employer.

DEPUTY DIRECTOR, GM-401-13/14 GENERAL BIOLOGICAL SCIENCES (INTERDISCIPLINARY) USDA, FOREST SERVICE INSTITUTE OF TROPICAL FORESTRY RIO PIEDRAS, PUERTO RICO

This is a joint research/research administration position. Management responsibilities include guiding the institute's growing tropical research programs including complex international activities. Incumbent will also develop an active research program within the scope of the institute's mission. Full fluency in oral and written communication in both Spanish and English is highly desirable. Salary: \$44,384 to \$52,406. Applicants must possess an advanced degree in one of the biological sciences. Contact: **Dr. Robert P. Schultz at 504-589-6701 or Dr. Ariel E. Lugo at 809-766-5335.** The USDA is an Equal Employment Opportunity Employer.

POSITIONS OPEN

ASSOCIATE VICE PRESIDENT FOR RESEARCH AUBURN UNIVERSITY

Auburn University invites nominations and applications for the position of associate vice president for research. Auburn University is a land-grant institution with an enrollment of 21,500 students. The university has wide-ranging research and graduate programs in its 12 academic colleges and 65 academic departments. Organized research support for fiscal year 1990 was \$64.4 million.

The associate vice president for research is the chief research development officer in the office of the vice president for research. He/she will have major responsibility for the development of the university's extramurally supported research programs and will represent the office of the vice president for research with federal, state, and private funding agencies. The associate vice president is also involved in the establishment of research policy.

Candidates for the position will be expected to hold an earned doctorate, have experience in research and research management, and have a proven record of success in obtaining extramural support for research. Some university experience is preferred. The candidate should also have the ability to work cooperatively with university faculty and administrators and have good communication skills.

Qualified applicants are invited to send a résumé along with the names and addresses of five references. Nominations and applications should be submitted to: **Dr. Paul F. Parks, Vice President for Research, 202 Samford Hall, Auburn University, AL 36849-5112.** Review of applications will begin 1 September 1991. The position will be available 1 October 1991.

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

USDA/FOREST SERVICE

ASSISTANT STATION DIRECTOR (two positions), Southeastern Forest Experiment Station. Positions are located in Asheville, North Carolina. One position is responsible for providing long-range planning and application of multi-functional resource programs related to the station's research and development program. The other position is responsible for leadership, administration, coordination, and integration of the research efforts of the station and for supervision of a major portion of the total station's research program. Salary range is \$52,406 to \$61,643 per annum. Applicants should submit a one-page résumé to: **Southeastern Forest Experiment Station, P.O. Box 2680, Asheville, NC 28802, Attention: Donald Downs.**

FACULTY POSITION IN ANATOMY

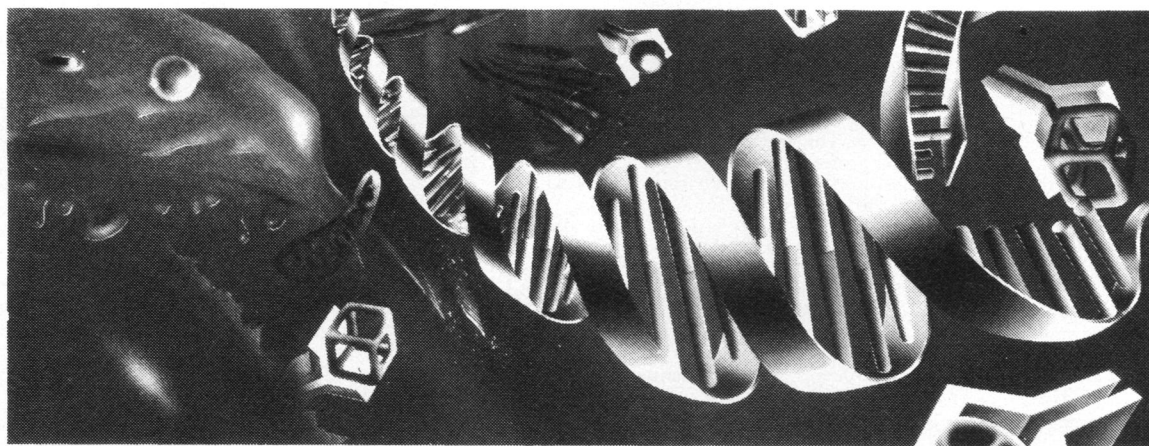
Mercer University School of Medicine announces a tenure-track position in anatomy, involving problem-based teaching of medical students and development of an independent research program. Experience teaching gross anatomy, neuroanatomy, and embryology to medical students is preferred. Applicants must possess a Ph.D. (preferably in anatomy) and/or M.D. and postdoctoral training. Faculty rank will be commensurate with experience. Applications will be accepted until the position is filled. Submit curriculum vitae, statement of career goals and objectives, teaching experience, and names of three references to: **Dr. Robert J. Moon, Chairman, Division of Basic Medical Sciences, Mercer University School of Medicine, Macon, GA 31207.** An Equal Opportunity/Affirmative Action Employer.

FACULTY TEACHING POSITION. The New York Chiropractic College is pleased to announce the relocation of its campus to the beautiful Finger Lakes Region in Seneca Falls, New York. The Division of Pre-Clinical Studies invites applications for a full-time teaching position in **PATHOLOGY.** Applicants should have a Ph.D. in the appropriate discipline, or an M.D. degree and also should be committed to excellence in teaching. Interested individuals should send cover letter, curriculum vitae, and names of three references as soon as possible, but no later than 1 August 1991 to:

Barbara J. Davis, Ph.D.
Director, Pre-Clinical Studies
New York Chiropractic College
P.O. Box 800, Seneca Falls, NY 13148

The New York Chiropractic College is an Equal Opportunity Educator and Employer.

Career Opportunities for Research Scientists and Technicians



Oncogene Science is expanding its basic drug discovery and research product divisions in the application of oncogene technology to innovative product development. We currently have postdoctoral, research scientist, and technician positions available in the following general areas:

Molecular Biology

- Gene Cloning
- Eukaryotic Gene Expression
- Transcriptional Regulation

Signal Transduction

- Pi Turnover
- Protein Kinases
- Calcium Mobilization

Production/Manufacturing

- DNA Probe Products
- Antibody Products
- Immunoassays

Protein Biochemistry

- Protein Purification
- Protein Characterization

Immunology/Immunochemistry

- Hematopoietic Factors
- Immunoassay Design
- Hybridoma Development

Cell Biology

- In Vitro Drug Evaluation
- Atherosclerosis

The company also has opportunities in its patent development program for Ph.D.s with a minimum of three (3) years' postdoctoral experience in molecular biology/drug discovery and/or research and diagnostic product development.

Oncogene Science is strategically located on Long Island with ready access to major academic institutions in the New York City metropolitan area.

Oncogene Science offers an excellent compensation and benefits package. Qualified candidates should send their resumes, including a list of publications and references to: **Oncogene Science, Inc., Human Resources Department, 350 Community Drive, Manhasset, New York 11030; Attn: CO.** An Equal Opportunity Employer.

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Science** 

WE HAVE \$9.2 BILLION IN SALES. WOULD YOU CARE TO MAKE IT \$10 BILLION?

SmithKline Beecham is a \$9.2 billion global pharmaceutical and health care company. Our world famous products and reputation mean unsurpassed opportunities for individuals to combine their scientific and marketing expertise as Regional Medical Associates.

Our Regional Medical Associates establish relationships within major medical institutions for the purpose of acting as scientific liaison and providing in-depth information regarding SmithKline Beecham products. This includes the training of representatives and medical professionals. Travel 40%.

To qualify, you must have a Ph.D. in Pharmacology, Toxicology, Microbiology or related life sciences. Strong marketing and communication skills and a high degree of initiative are also required. An opportunity currently exists in the Baltimore/Washington D.C. area.

We offer one of the best compensation packages—including car—in the industry. If you'd like to be a part of our success, send your resume and salary history to: SCIENCE BOX #8, Science Classified Advertising, 1333 H Street, NW, Room 340, Washington, DC 20005. We are an Equal Opportunity Employer, M/F/H/V.



SmithKline Beecham
Pharmaceuticals

POSITIONS AVAILABLE

Haskell Laboratory for Toxicology and Industrial Medicine of DuPont has three available positions.

BIostatistician

Ph.D. or equivalent experience in biostatistics and biology/toxicology familiarity are essential. Experience in computer programming (e.g. VAX, FORTRAN, SAS) is highly desirable. This position involves participation with other staff scientists in a multidisciplinary program of safety and health assessment. Responsibilities include consulting in design and analysis of toxicity studies, validating and developing custom computer programs, and training others in statistical concepts and program use. Research interests in risk-assessment modeling and other areas of applied biostatistics are encouraged.

RESEARCH GENETIC TOXICOLOGIST

Ph.D. degree and two or more years of advanced post-doctoral training in genetic toxicology or related disciplines are required, as well as experience with modern molecular biology methods and/or cytogenetics. The position will direct studies in genetic toxicology testing and will be expected to initiate and conduct research on problems in cellular and molecular toxicology. The position offers excellent opportunities to collaborate with a professional research staff whose expertise includes toxicological aspects of genetics, developmental biology, neuroscience, immunology, and carcinogenesis.

POSTDOCTORAL POSITION IN NEUROTOXICOLOGY

The position involves multidisciplinary basic research on *in vitro* models of neurotoxicity. Applicants should have a Ph.D. with training in neuroscience, biochemistry, or molecular biology. This position is an opportunity for advanced training and mechanistic research in cellular and molecular neurotoxicology. The duration of the appointment is one year, with reappointment at annual intervals by mutual consent for a total duration of three years.

These employment opportunities are located in Newark, Delaware, in modern and well-equipped laboratory facilities. Salary commensurate with experience/qualifications.

Please submit curriculum vitae and a cover letter to:

Jeanne S. Armstrong
Administrative Services Coordinator
Haskell Laboratory
E. I. du Pont de Nemours and Company
P.O. Box 50, Elkton Road
Newark, DE 19714

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A rapidly growing provider of diversified healthcare products. A new leader in the biotechnology industry. An innovative marketing and business force. With nearly 700 employees worldwide and an impressive array of products, Genzyme is all of these. Now is the time for talented, driven individuals to attain success through science. Now is the time to build your career with Genzyme.

Research Associate - Enzymology

We are seeking an Enzymologist to characterize therapeutic enzymes. Responsibilities will include gene isolation, enzyme purification and the development of kinetic activity assays. An advanced degree in Biochemistry or Chemistry with a minimum of 2 yrs' research experience in enzyme characterization and molecular biology is required.

Genzyme offers an excellent compensation and benefits package, including 3 weeks vacation, a 401(k) Plan with a company match, and extensive insurance plans.

Please send your resume to: Human Resources, Genzyme Corporation, Dept. SM726, One Kendall Square, Cambridge, MA 02139.

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ECOLOGISTS/CONSERVATION BIOLOGISTS

The Wilderness Society, a national environmental organization, is filling three positions in ecology and conservation biology. All require strong technical writing skills. Competitive salaries and excellent benefits.

Senior Ecologist: Develop innovative programs, policies, and legislation to protect biological diversity on U.S. federal lands; produce studies on critical U.S. biodiversity issues. Ph.D. in ecology/conservation biology preferred; experience in policy analysis and formulation desirable.

Forest Ecologist: Shape Wilderness Society policies on management of federal, state, and private forest lands. Participate in program development of the new Bolle Center for Sustainable Forests. Ph.D. in forest ecology preferred; minimum of 6 years experience in policy analysis or research.

Southern Appalachians Ecologist: Participate as a member of a team developing a comprehensive plan to protect the biological diversity and wildlands of the Southern Appalachian Highlands region. Advanced degree in ecology or conservation biology required; knowledge of flora and fauna of southern Appalachians desirable. Position funded for two years.

Send resume and writing samples by September 6, 1991, to:

Dr. Mark Shaffer
The Wilderness Society
900 Seventeenth Street, N.W.
Washington, D.C. 20006-2596

The Wilderness Society is an equal opportunity employer.

MALARIA VACCINE
DEVELOPMENT PROGRAM

Announcement of:
Requests for Applications (RFA)

Background. For more than 20 years the Agency for International Development (A.I.D.) has supported research in malaria vaccine development. Currently, the primary foci of the Malaria Vaccine Research & Development Project include:

- ❑ *the identification and characterization of malaria parasite antigens;*
- ❑ *the elucidation of the immune response in humans and relevant animal models to malaria parasites: specifically, the immune response to identified antigens and to B-cell and T-cell epitopes including appraisals of the strain specificity of protective immunity;*
- ❑ *the elucidation of humoral and cellular effector mechanisms of immunity to malaria, especially protection from the pathological consequences of infection, and the development of *in vitro* correlates of immunity which protect humans from clinical diseases.*
- ❑ *the modification of the structure and/or mode of presentation of demonstrated protective antigens, to increase their ability to induce a protective immune response.*

Proposals. The A.I.D. Malaria Vaccine Research and Development Program is currently soliciting proposals from U.S.-based research institutions that describe 3-year research projects with two distinct scopes-of-research. The title and the range of activities requested in each RFA are outlined below:

- ❶ **RFA-ST/H-91-001 Blood Stage and Transmission Blocking Vaccine Development** ~ This request is limited to studies of blood stage and transmission blocking antigens, there is a special interest in the major merozoite antigen (gp195) and cytoadherence antigens of *P. falciparum*.
- ❷ **RFA-ST/H-91-002 Vaccine Related Ultrastructural Studies of Plasmodia** ~ This request is to support a facility which will conduct vaccine related collaborative studies of the ultrastructure of malaria parasites by immunoelectron microscopy and other relevant technologies.

Applications. Proposals must be received by November 1, 1991. Forms and detailed instructions as well as programmatic information are available from:

Project Officer
Malaria Vaccine Research & Development Project
A.I.D. Office of Health (SA-18; Room 705)
Washington, D.C. 20523
Fax: (703) 875-5490

SCIENTISTS AND POSTDOCTORAL FELLOWS IN NEUROBIOLOGY AND PROTEIN CHEMISTRY

REGENERON PHARMACEUTICALS is making rapid progress in the basic understanding of neuronal growth factors and how these proteins can treat degenerative and traumatic neurological disorders.

Openings now exist in the Neurobiology Department for scientists and research associates with interests and skills in the following areas: (1) kinetics, pharmacology, distribution, and quantitative image analysis of protein and organic radioligand binding to tissue sections or homogenates; (2) *in vitro* and *in vivo* analysis of neurochemical changes following central and peripheral growth factor administration; and (3) the use of established tests and development of novel tests for measuring behavioral capacities after peripheral or central neural injury and neurotrophic factor administration.

Scientist and Postdoctoral positions require a Ph.D. and/or M.D. degree and extensive experience and publications in either of these three areas. Experience with animal models of central peripheral nerve disease or traumatic injury, PNS neurophysiology, or neuronal plasticity is also desirable for Scientist positions.

Openings also exist in the Cellular and Molecular Biology Department for scientists and research associates (B.S., M.S., Ph.D.) and postdoctoral fellows with training and/or interest in the chemical and biological characterization of growth factors and their receptors. Experience in protein purification, peptide synthesis, or in primary, secondary and tertiary structural analysis of proteins would be advantageous.

Regeneron's modern facility is located on an expansive wooded campus in Westchester County, 25 miles north of Manhattan. The highly collaborative and supportive Regeneron community offers considerable scientific and professional growth potential.

Please send your resume and a cover letter indicating the relevant position, the names of 3 or more references, and your immediate career goals to: **Ms. Carol Deaken, Bin IV (Neurobiology positions) or Bin CMB (Cellular and Molecular Biology Positions), REGENERON PHARMACEUTICALS, INC. 777 Old Saw Mill River Road Tarrytown, NY 10591-6707**
Equal opportunity employer.

REGENERON
Pharmaceuticals, Inc.

Director Biomedical Research

CLEMSON UNIVERSITY and the GREENVILLE HOSPITAL SYSTEM have concluded a unique agreement to foster collaborative biomedical research. The two institutions have committed \$10 million to support the first five years' activities, including renovation and construction of research facilities, addition of faculty and promotion of research. We seek an outstanding individual committed to academic and health care excellence to lead the program. The Director is expected to hold an appointment as professor with tenure in an academic department at Clemson University and a staff appointment at the Greenville Hospital System. Candidates should have a Ph.D. and/or an M.D., an established record of accomplishment and extramural funding in research of biomedical relevance. The successful candidate will be expected to continue an active research program.

Demonstrated administrative ability, leadership and experience in working successfully with scientists and physicians will be essential in serving as a liaison between Clemson University, a land-grant institution, and the Greenville Hospital System, a regional teaching hospital. The Director will determine the priorities and goals of the program and be instrumental in making new appointments. The Director will have senior administrative responsibility for the program budget, staff and assigned facilities, and will report to a Joint Research Council.

Applications, nominations and inquiries should be sent to: Dr. Lewis M. Duncan, Chair, Biomedical Search Committee, Clemson University, College of Sciences, 120 Kinard Lab, Clemson, SC 29634-1901, (803) 656-3472. Initial review of applicants will begin by September 1, 1991, and the position will remain open until filled.

CLEMSON UNIVERSITY AND THE GREENVILLE HOSPITAL SYSTEM
ARE AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYERS.

Postdoctoral Scientist Japan

Genentech, Inc., a leader in the biotechnology industry, is participating in an exciting new joint venture with Osaka Bioscience Institute (OBI) directed by Dr. Osamu Hayaishi. As part of this collaboration, we are seeking a Postdoctoral Scientist to join a research team headed by Dr. Shigekazu Nagata to be based at the OBI facilities located in Osaka, Japan.

For this unique position, we are seeking a Scientist willing to take on new projects in a variety of basic research fields. Qualified candidates must have a PhD with a strong background in Molecular Biology, Protein Chemistry or Biochemistry, especially in the biomedical field. Good interpersonal skills are essential.

Genentech, Inc. offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. For consideration, please send your resume to Wendy Reitherman, Genentech, Inc., Dept. WR/SCI, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

Genentech, Inc.

POSITIONS OPEN

CHAIRMAN, DEPARTMENT OF PATHOLOGY UNIVERSITY OF VERMONT COLLEGE OF MEDICINE

The University of Vermont and Medical Center Hospital of Vermont (MCHV) seek a full-time chairman of the Department of Pathology. Applicants must be Board-certified in pathology; have administrative experience, strong leadership skills, and an outstanding record of accomplishment in biomedical research; and be interested in fostering programs for patient services, teaching, and scholarship. MCHV is a tertiary care teaching hospital associated with the University of Vermont, College of Medicine. *The University of Vermont is an Affirmative Action/Equal Opportunity Employer, and women and people from diverse racial, ethnic, and cultural backgrounds are encouraged to apply.* Interested parties should send curriculum vitae to: **Kenneth Mann, Chair of Pathology Search Committee, c/o Department of Pathology, Soule Medical Alumni Building, University of Vermont, Burlington, VT 05405.** Applications will be accepted until position is filled.

Tenure-track **FACULTY POSITION** in genetics is available beginning January 1992. Successful candidate is expected to develop courses in area of specialty and teach courses in microbiology and general biology. Research is encouraged; opportunities exist with nearby USFWS, USDA, and NCI facilities. Ph.D. is required. With an enrollment of approximately 3600 students, Shepherd College, located on the banks of the Potomac River approximately 65 miles from Washington and Baltimore, is a baccalaureate institution in the West Virginia State College System. Application deadline is 1 September 1991. *Minorities and women are encouraged to apply.* Send résumé and arrange for at least three letters of reference to be sent to: **Dr. Phillip Simpson, Department of Biology, Shepherd College, Shepherdstown, WV.** *Affirmative Action/Equal Opportunity Employer.*

BIOCHEMISTRY/ MOLECULAR BIOLOGY TEXAS A&M UNIVERSITY

The Department of Biochemistry and Biophysics is seeking applications for **FACULTY POSITIONS**. These are 12-month, tenure-track positions to be filled by September 1992. Academic rank is open and dependent upon experience and qualifications. Outstanding individuals having research interests dealing with the molecular aspects of regulation, structure, mechanism, or function in microbial, animal, or plant systems are sought. In addition to research, participation in the department's undergraduate and graduate teaching programs will be required. A Ph.D. in either biochemistry or a related field, plus appropriate postdoctoral experience, is required.

Applicants should send curriculum vitae, list of publications, a brief description of current and future research directions, and have three letters of reference sent to: **Dr. Robert D. Wells, Department of Biochemistry and Biophysics, Texas A&M University, College Station, TX 77843-2128.**

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

TWO POSTDOCTORAL POSITIONS. Available immediately for studies in one of two areas: (i) cellular regulation of epithelial chloride channels (normal and in CF) and (ii) hormonal and cytoskeletal regulation of intestinal Na,K-ATPase (normal and in diabetes). Indicate area of interest and send curriculum vitae and names and addresses of three references to: **Michael Field, M.D., P&S 10-508, College of Physicians and Surgeons, Columbia University, 630 West 168th Street, New York, NY 10032.**

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POSITIONS OPEN

FACULTY POSITION IN BIOCHEMISTRY

The Department of Biochemistry at Case Western Reserve University (CWRU) invites applications and nominations for a tenure-track position. The strengths of the department are represented in the areas of protein chemistry, protein/nucleic acid interactions, regulation of gene expression, and metabolism. An individual who will add to any of these areas and provide active interactions with the members of the department is preferred. Applicants should have a vigorous and well-established research program. Applicants should send curriculum vitae, a statement of research interests, and should arrange for the submission of three letters of reference to: **Dr. Mulchand S. Patel, Chair of Search Committee, Department of Biochemistry, Case Western Reserve University School of Medicine, Cleveland, OH 44106-4935.**

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

POSTDOCTORAL POSITION to study DNA repair in chromatin and its correlation with gene expression in mammalian cells and yeast minichromosomes [e.g., see *Biochemistry* 29, 4773 and 7501 (1990); *Cell* 61, 675 (1990); *JBC* 264, 11026 (1989)]. Training in biochemistry, biophysics, molecular biology, molecular genetics, and/or electron microscopy is preferred. Send résumé and names of three references to: **Dr. Michael J. Smerdon, Department of Biochemistry and Biophysics, Washington State University (WSU), Pullman, WA 99164-4660. FAX: 509-335-9688. WSU is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION IN MOLECULAR NEUROBIOLOGY. Position available to participate in two NIH-funded, multidisciplinary research projects: the regulation of tachykinin neuropeptide and neuropeptide receptor gene expression and the cloning and characterization of various neurotransmitter transporters. Experience in cellular or molecular biology desirable. Send curriculum vitae, a statement of research interests, and the names of three references to: **Dr. Michael J. Bannon, Department of Psychiatry, Wayne State University School of Medicine. Mailing address: Center for Cell Biology, Sinai Hospital, 6767 West Outer Drive, Detroit, MI 48235. Wayne State University is an Equal Opportunity/Affirmative Action Employer.**

NIH TRAINING PROGRAM POSTDOCTORAL POSITIONS IN CARDIOVASCULAR PHYSIOLOGY

The Department of Physiology at Jefferson Medical College, Thomas Jefferson University, offers a postdoctoral training program in physiology and pathophysiology of cardiovascular disorders. Research areas include studies on myocardial ischemia-reperfusion injury; the role of phospholipids and eicosanoids in regulation of endothelial cell function; regulation and the molecular basis of smooth muscle contraction; characterization of spinal visceral reflexes to kidney and heart, pain research, endothelial injury, neutrophil migration, and the interaction of neutrophils, leukocytes and endothelial cells in circulatory disorders. Emphasis will be placed on cellular and molecular approaches to these problems. We have a 5-year training grant to fund two postdoctoral trainees per year. Faculty participating in this NIH training program include Drs. K. H. Albertine, W. S. Ammons, T. M. Butler, J. T. Flynn, M. H. Gee, A. M. Lefer, and M. J. Siegelman. 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.**

An Equal Opportunity/Affirmative Action Employer.

PREDOCTORAL POSITION. At University of California, San Francisco. Position available immediately to study molecular biology of hormone expression and action: (i) molecular basis of signal transduction by the parathyroid hormone receptor, (ii) PTH-related protein (PTHrP) as a differentiation factor, and (iii) regulation of PTHrP gene expression in tumor cells. Prefer experience in molecular biology, e.g., mammalian cell expression or transcription. Please send curriculum vitae with names/telephone numbers of three references to: **R. A. Nissenson, Ph.D., or G. J. Stewler, M.D., Endocrine Unit (111N), VA Medical Center, 4150 Clement Street, San Francisco, CA 94121. An Equal Opportunity/Affirmative Action Employer.**

26 JULY 1991

A TIME FOR ACHIEVEMENT

The recent opening of the new Glaxo Inc. Girolami Research Institute, located in Research Triangle Park, NC, represents our continued commitment to the discovery and development of drugs for unmet patient needs. We invite you to experience the challenges and accomplishments a future with us holds for you. The following opportunities are now available:

SENIOR SCIENTIST Enzymology

This scientist, within the Biochemistry Department, will be responsible for establishing a laboratory in the area of steroid biochemistry.

Background must include a Ph.D. in Biochemistry, or a related area, with 2-6 years relevant experience. A strong background in enzyme kinetics and mechanism and an interest in the biochemistry of proliferative disorders are desired.

Please refer to Job #9127B201-SC on all resumes.

ASSOCIATE RESEARCH SCIENTIST

We seek an experienced NMR spectroscopist to assist staff in the Departments of Medicinal Chemistry and Structural & Biophysical Chemistry.

Responsibilities include:

- Maintenance of Varian VXR-300S and Unity-300 NMR spectrometers. The Unity-300 includes an automatic sample changer.
- Collaborate with Medicinal Chemistry staff in the proposal and execution of sophisticated multi-dimensional NMR experiments and the interpretation of NMR data.
- Assist Structural and Biophysical Chemistry staff in maintenance of Bruker AMX-600 and AMX-500 NMR spectrometers.

Background must include a BS or MS in a Life Science with 3 or more years of relevant experience. Electronics troubleshooting experience or computer systems (UNIX) management background is strongly desired.

Please refer to Job #9141-SC on all resumes.

Our Research Triangle Park, NC location (near Raleigh, Durham and Chapel Hill) offers a lot more for people who seek a well-rounded lifestyle. This world-famous scientific, industrial and academic community affords access to respected universities, beautiful residential areas, major retail centers, excellent health care and abundant cultural and recreational facilities. Join Glaxo and enjoy an excellent salary, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction.

Send your resume, INDICATING THE CORRESPONDING JOB # and salary history, to: Human Resources Department, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709. (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/H/V.

Glaxo Inc.

POSTDOCTORAL FELLOWSHIPS

DNAX Research Institute, located near Stanford University, carries out basic research in Immunology and Molecular Biology in an open, academic environment. We are looking for several individuals to work as Postdoctoral Fellows for a period of 2-3 years, who can contribute to our enthusiastic and productive research program.

Fellowships available immediately include the following areas:

- Structural and functional analysis of membrane receptors involved in triggering cell-mediated cytotoxicity.
- Identification and characterization of NK cell surface structure involved in signal transduction and adhesion
- Investigation of the ontogeny of human and murine NK cells
- The role of T cells and cytokines in the regulation of IgE switching in human B cells

Additional fellowships in molecular biology and protein chemistry are also available.

Qualified applicants should send a curriculum vitae, statement of research interests, and the names of three references to DNAX Research Institute of Molecular and Cellular Biology, 901 California Avenue, Palo Alto, California 94304-1104. An equal opportunity employer, m/f/h.

DNAX Research Institute

PHARMAGENESIS

Pharmagenesis, a young, dynamic, growing drug discovery company, is seeking highly motivated individuals to join research programs spanning from natural product drug screening to molecular biology. Pharmagenesis is developing programs in bone metabolism, haematology and immunology.

BS / MS / PhD Scientists: If you have relevant laboratory experience and a strong theoretical knowledge, take advantage to join teams in one of the following areas:

Organic Chemistry: Develop techniques for the extraction of drugs from natural product / plant sources. Develop HPLC techniques for fractionation and identification of active substances. Synthesize lead compounds and analogues.

Bioassay Systems: Develop *in vivo* and *in vitro* bioassay systems involving enzymology and molecular biology methodologies.

Pharmagenesis offers a competitive salary and a comprehensive benefits package. Please send full resume to Dr. D. R. Henderson, Vice President, R & D, Pharmagenesis, 3183 Porter Drive, Palo Alto, CA 94304.

PUBLIC HEALTH SERVICE NATIONAL INSTITUTES OF HEALTH FELLOWSHIP IN MOLECULAR NEUROBIOLOGY

The laboratory of Neurosciences, at the National Institute on Aging, Bethesda, Maryland invites applicants for a Fellowship position to study molecular biological aspects of the brain in relation to development and aging, neuroplasticity and Alzheimer's disease. The successful candidate will be expected to apply techniques of recombinant DNA and/or *in situ* hybridization to address differences in gene expression in health and disease.

Applications are invited from individuals having a Ph.D., M.D., or combined degrees. NIH is an equal opportunity employer and applications from women and minorities are invited. Interested candidates should submit their Curriculum Vitae to: **Stanley I. Rapoport, M.D., Chief, Laboratory of Neurosciences, National Institute on Aging, NIH, 9000 Rockville Pike, Building 10, Room 6C103, Bethesda, MD 20892.**

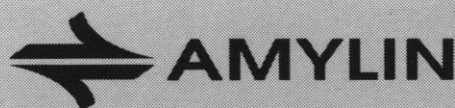
PHARMACOLOGISTS

Amylin Corporation is developing novel therapeutic and diagnostic agents for metabolic disorders based upon the discovery of the pancreatic hormone amylin (see Cooper *et al.*, *BBA*, 1014: 247-258, 1989). The Pharmacology Department has the following openings:

Staff Scientist with demonstrated expertise in immunochemistry, especially relating to peptide hormones. This position requires knowledge of autoradiography, tissue sectioning and histochemical procedures, and computer-assisted image and data analysis. Experience with receptor characterization, *in situ* hybridization methods and protein purification is desirable. Level of appointment and supervisory responsibilities are dependent upon candidate's qualifications and record of accomplishments.

Research Associate with interest in cellular function assays and measurement of receptor-linked second messengers in cells and tissues. This position requires a B.S./M.S. degree and experience with cell culture, immunoassays, and computerized data analysis. Knowledge of laboratory automation and database/statistical packages is desirable. Prior industry experience is advantageous.

Amylin Corporation offers a stimulating and challenging opportunity to participate in a new area of biomedical science, as well as an excellent benefits package which includes equity ownership participation. Please send your curriculum vitae and names and addresses of three references to: **Ms. Audrey McGovern, Human Resources Administrator, Amylin Corporation, 9373 Towne Centre Drive, Suite 250, San Diego, CA 92121 or Fax (619) 552-2212.** Amylin Corporation is an Equal Opportunity Employer.



SENIOR RESEARCH SCIENTIST VASCULAR CELL BIOLOGY

An opening exists for a highly motivated individual who will probe basic cellular and molecular mechanisms which govern growth control in the vessel wall. The ultimate goal will be the development of novel smooth muscle cell anti-proliferative agents. This position offers an unequalled opportunity to transfer knowledge gained from basic research to the clinical setting. Publication of results is strongly encouraged.

A background in growth factors, signal transduction mechanisms, vascular cell biology, or in vivo models of restenosis is desirable. Requirements for the position include an M.D. degree or a Ph.D. in Biochemistry or related discipline with related postdoctoral training. Other highly accomplished individuals with an M.S. degree and experience in a related area will also be considered.

Excellent salary and benefit programs accompany this position at our modern research facilities located 25 miles northwest of Philadelphia.

Please send curriculum vitae with cover letter to: **Personnel Manager, Ad #D-24, Research Personnel, WP42-2, MERCK SHARP & DOHME RESEARCH LABORATORIES, West Point, PA 19486.** EEO/AA/VH/Employer.



Merck & Co., Inc.

POSTDOCTORAL SCIENTIST

MOLECULAR IMMUNOLOGY

SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research, has an opportunity available for a Molecular Immunology Postdoctoral Scientist. As part of a collaborative team, the selected individual will study alternative pathways of T-cell activation and will elucidate molecular events involved in gene transcription, lymphokine production and proliferation.

Qualified candidates will have a Ph.D. in Immunology, Molecular Immunology or a related discipline. It is essential to have a working knowledge of immunology, publications in peer-reviewed journals and good communication skills. Previous postdoctoral experience and experience with molecular-biology techniques is desired.

Our state-of-the-art research facility is located in suburban Philadelphia, near Valley Forge, PA. We offer a competitive compensation/benefits/relocation package, as well as a stimulating and challenging work environment. For prompt consideration, please submit your C.V. and the names of three references to: Nancy Hasson, Employment Administrator, #H0180, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.



SmithKline Beecham
Pharmaceuticals

EXXON BIOMEDICAL SCIENCES, INC.

Exxon Biomedical Sciences, Inc., is located in East Millstone, New Jersey. The site houses staff offices as well as toxicology and accredited industrial hygiene laboratories capable of state-of-the-art testing of products and process streams. Also on site are key support functions including coordination and planning, quality assurance, computer services, and information sciences.

ECOTOXICOLOGIST

EBSI has an immediate opening for a qualified individual specializing in Environmental Toxicology and Risk Assessment. The successful candidate will have a Ph.D. in Environmental Toxicology or a related field and 1-2 years of experience in environmental risk assessment, site remediation, and environmental exposure modelling.

SENIOR ECOTOXICOLOGIST

EBSI has an immediate opening for a qualified individual specializing in Environmental Toxicology and Risk Assessment. The successful candidate will have a Ph.D. in Environmental Toxicology or a related field and 3+ years of experience in environmental risk assessment, ecological safety assessments, site remediation, and environmental fate and effect studies.

Both successful candidates will act as consultants to our affiliates on matters pertaining to the assessment of environmental hazards associated with products, effluents, hazardous wastes, site remediation, etc. Client interactions are an important aspect of our work, and thus, we are seeking individuals who have excellent communication skills as well as the ability to manage small to large projects.

MAMMALIAN TOXICOLOGIST

The successful candidate will have a Ph.D. in Toxicology with 3-5 years of experience with the ability to identify, develop, market, and manage the delivery of major human health/product toxicology studies. Desirable attributes include: an undergraduate degree in a related hard science field, e.g., environmental engineering, chemistry, etc.; experience in evaluation of human risk related to contaminated sites, workplace, product exposure; capabilities in computer modeling/analysis, e.g., PBPK, predictive models, risk assessment models; and working knowledge of U.S., European, and Canadian regulations. The position requires extensive consulting with Exxon Affiliates worldwide. Client interactions are an important aspect of our work, and thus, we are seeking an individual who possess excellent communication skills.

We offer a competitive salary, attractive benefits, and a chance to join a dynamic organization in a position with opportunities for career growth. Please send resume to Francene T. Cohen, Human Resources.

EXXON BIOMEDICAL SCIENCES, INC.

Mettlers Road, CN 2350

East Millstone, NJ 08875-2350

Equal Opportunity Employer M/F/H/V

POSITIONS OPEN

A POSTDOCTORAL POSITION at the University of Florida is available beginning September 1991 to collaborate on studies examining the mechanisms by which reactive O_2 species cause injury in pulmonary endothelial cells. Work will involve measuring reactive O_2 species ($O_2^{\cdot-}$, H_2O_2 , $\cdot OH$) in hypoxic and hyperoxic cells, assessing the response of cellular antioxidant and repair processes, and quantitating injury. A background in oxidant biochemistry and experience with tissue culture are desired. Send curriculum vitae and names and telephone numbers of three references to: Dr. Edward R. Block, J. Hillis Miller Health Center, Box J-225, University of Florida, Gainesville, FL 32610. Telephone: 904-374-6069.

POSTDOCTORAL POSITION. DEVELOPMENTAL BIOLOGY. August 1991. The laboratory studies morphogenesis and specification of *Drosophila* imaginal tissue, including aspects of neuronal development and axon guidance, at cellular and molecular levels. Send inquiries to: Dr. Seth Blair, Department of Zoology, University of Wisconsin, 250 North Mills Street, Madison, WI 53706. Telephone: 608-262-1345; SBLAIR@wisemacc.bitnet. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION

Position available to study changes in gene expression that occur in the progression of normal cells to cancer. The project uses primarily molecular genetic methods to identify and characterize the genes involved. Other research areas involved in this project include cell biology and immunology. Experience in recombinant DNA technology (cloning of differentially expressed genes, DNA sequencing, expression vector construction, Northern and Southern analysis, PCR cloning, work with GenBank) is preferred. Applicants with a desire to learn the above techniques and exceptional backgrounds will also be considered. Send curriculum vitae and the names of three references to: Dr. William C. Raschke, La Jolla Biological Laboratories, Salk Institute, P.O. Box 85350, San Diego, CA 92186. Equal Opportunity Employer, M/F/H/V.

POSITIONS OPEN

POSTDOCTORAL FELLOW. Available position to study structural, functional, and inhibitory properties of serine proteinases purified from human mast cells. Background in biochemistry and interest in proteases and protease inhibitors desirable. Please send curriculum vitae and names of references to: Dr. Norman Schechter, Department of Dermatology, University of Pennsylvania, Clinical Research Building, 422 Currie Boulevard, Philadelphia, PA 19104. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOW. Two-year research program in fundamental molecular and cellular cancer biology. NIH training grant funded for U.S. citizens only. Available immediately. Contact: John Craighead, M.D., Department of Pathology, University of Vermont, Burlington, VT 05405.

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOW

Position available Fall 1991 to investigate maturation of the mechanisms regulating catecholamine secretion in fetal adrenal medulla. Includes study of neurotransmitter receptors, signal transduction mechanisms, and regulation of gene expression of catecholamine biosynthetic enzymes. Experience in molecular biology is required. Candidate should be U.S. citizen or permanent resident. Applicants submit letter stating interest, curriculum vitae, and names of three references to: C. Y. Cheung, Department of Reproductive Medicine (0802), University of California, San Diego (UCSD), La Jolla, CA 92093-0802. UCSD is an Affirmative Action/Equal Opportunity Employer. Salary related to rank and step of appointment is within the established salary schedule of the UCSD School of Medicine.

FREE PRODUCT INFORMATION SERVICE.

Send a letter stating the specifics about your new laboratory and Science will put you in touch with the vendors whose products you will need. Write to: SCIENCE New Lab Service Department, 1515 Broadway, New York, NY 10036.

POSITIONS OPEN

POSTDOCTORAL/RESEARCH ASSOCIATE MOLECULAR BASIS OF PROSTATE CANCER

Positions available to study the molecular basis of prostate cancer development and metastasis in humans. Current approaches involve the use of a novel transfection/expression system to transfer and identify new human tumor inducing genes and to develop monoclonal antibodies specific for tumor-associated antigens. Expertise in current molecular biological techniques, such as cDNA cloning, library screening, and PCR required. To apply, send curriculum vitae, statement of research goals, and three letters of reference to: Dr. P. B. Fisher, Departments of Pathology and Urology, Columbia University, College of Physicians and Surgeons, 650 West 168th Street, New York, NY 10032. FAX: 212-305-5498. Equal Opportunity Employer.

POSTDOCTORAL ASSOCIATE. To investigate mutations at the human MUT locus in fibroblasts from patients with methylmalonic acidemia by cloning and sequencing cDNAs, to study structure-function relationships in methylmalonyl CoA mutase by correlating specific mutations with the resulting biochemical phenotypes, to establish DNA-based methodologies for early prenatal diagnosis and heterozygote detection in methylmalonic acidemia, and to develop the basic reagents and techniques for future attempts at gene therapy in this disease. The position requires an M.D. (or equivalent) degree, including a minimum of 2 years of postgraduate fellowship training in human genetics, 1 year of proven experience in human genetic disease, particularly metabolic disease. A minimum of 1 year of proven experience is also required in current techniques in molecular biology, including the polymerase chain reaction, cDNA cloning and sequencing, and Southern blotting, in mammalian cell tissue culture and transfection techniques, and in protein biochemistry and characterization in addition to knowledge of retroviral genetics and pathogenesis. Full-time position with annual salary of \$32,500. Interested applicants should mail their résumés to: Leon E. Rosenberg, M.D., Yale University School of Medicine, Department of Genetics, 333 Cedar Street, New Haven, CT 06510.

Postdoctoral Training Toxicology and Carcinogenesis

Positions are available for studies in various aspects of cancer research and toxicology in the Center in Molecular Toxicology through the Departments of Biochemistry, Chemistry, Medicine, Pharmacology, and Pathology. Areas of investigation relating to toxicology and carcinogenesis are: 1) metals, 2) enzymatic oxidation, 3) thiols and selenides, 4) DNA damage and repair, 5) natural products, 6) molecular recognition, and 7) development of analytical methods. Salaries are negotiable.

Faculty

Ian A. Blair	Thomas M. Harris
Robert C. Briggs	Mark M. Jones
Raymond F. Burk	R. Stephen Lloyd
Peter Gettins	Lawrence J. Marnett
F. Peter Guengerich	

Applicants should submit curriculum vitae and three letters of recommendation to Dr. F. Peter Guengerich, Director, Center in Molecular Toxicology, Vanderbilt University, School of Medicine, Nashville, TN 37232-0146

An Affirmative Action/Equal Opportunity Employer

Research Scientist

SyStemix, an exciting new biotechnology company, is developing revolutionary technology for the study of human disease processes and treatments. We are currently seeking a Research Scientist to supervise the development of a PCR/molecular biology assay.

The successful candidate will design and supervise experiments focusing on assay development to be incorporated into our contract testing service. The position requires an MS or Ph.D. with specialized training in molecular biology and assay development, in addition to 2 to 5 years' experience. Preferably, the candidate will have had direct experience with state-of-the-art assays (e.g., PCR and other amplification systems).

We offer a stimulating environment and the opportunity to work with a premier scientific research team, in addition to a very attractive compensation and benefits package. Please send your resume to: Human Resources, SyStemix, Inc., 3400 West Bayshore Road, Palo Alto, CA 94303, or fax your resume to 415-856-4919.

SYSTEMIX



Senior Scientist/ Junior Scientist/ Postdoctoral Fellow

The Department of Immunology Research has openings for four individuals to join a group studying diverse aspects of lymphocyte signal transduction in a multidisciplinary setting. The overall goal of the group is to utilize cutting edge science to develop novel therapeutic agents for the treatment of transplantation and autoimmune diseases.

SENIOR SCIENTIST - This individual will join an existing group of biochemists, electrophysiologists and immunologists studying the role of ion channels in lymphocyte activation. The position requires a Ph.D. or M.D., with at least 2 years of postdoctoral experience and a record of research accomplishments in biochemical and cell biological aspects of lymphocyte signal transduction.

SENIOR SCIENTIST - This individual will initiate a new program in lymphocyte signal transduction. The successful candidate should have a proven record of creative original research in which molecular biological and biochemical tools have been employed to solve biological problems. An interest and background in signal transduction along with a Ph.D. or M.D. and two years postdoctoral experience will be favorably considered.

JUNIOR SCIENTIST - Applicants should have a M.S./B.S. with substantial laboratory experience. Preference will be given to candidates with a strong background in culturing of human and murine T cells with emphasis on the biochemistry and molecular biology of the activation process.

POSTDOCTORAL FELLOW - This individual will participate in our highly successful multidisciplinary program on elucidation of the mechanism of action of the immunosuppressive agents cyclosporin and FK-506. Preference will be given to candidates with a strong background in molecular biology with emphasis on cloning, mutagenesis, and expression, or in biochemistry with emphasis on protein purification and characterization.

These are excellent opportunities for motivated and creative individuals to continue their scientific growth and development. Publication and internal and external collaborations are actively encouraged.

Merck Sharp and Dohme Research Laboratories is located in Rahway, New Jersey, approximately 25 miles from New York City. Our salaries, benefits and growth potential are excellent. For consideration, please send your resume with the names of 3 references to **Human Resources Manager, AD# 87, Merck & Co., P.O.Box 2000, Rahway, New Jersey 07065.**

EQUAL OPPORTUNITY EMPLOYER



Merck & Co., Inc.

UNIVERSITY OF TASMANIA
Australia

CHAIR OF ANATOMY
(Ref: 56/91)

Applications are invited for appointment to the position of Professor of Anatomy in the Faculty of Medicine. The person appointed to this position will be required to provide general academic leadership in the Department of Anatomy with respect to its research and teaching activities, including postgraduate training in research, and to assume the headship of the Department for at least the first five years of office. The appointee will also be expected to provide leadership in devising and implementing new undergraduate courses in health-related disciplines that involve anatomical studies. Such initiatives are presently under consideration.

The University is seeking to appoint an individual with an outstanding record of achievement in research in a recognised anatomical sub-discipline who is committed to continuing her/his research, and who is also committed to pursuing excellence in teaching. A registerable primary medical qualification would be considered a distinct advantage.

The Department of Anatomy has responsibility for the teaching of Anatomy in the Faculty's undergraduate programs in medicine and pharmacy and offers units in neurobiology for undergraduate students of psychology and science. The current research of the Department is broadly directed at neuroscience and includes studies of hypothalamic/brain stem involvement in SIDS, visual system and somatosensory system structure and development in mammals, avian neuroendocrinology, and acetylcholine mediated pathways. Excellent facilities are available for light and electron microscopy (TEM and SEM), microphotometry, computer-assisted analysis, tissue culture and molecular biology.

An information booklet containing details of the post, the Department of Anatomy, the Faculty of Medicine and the University is available from the Staff Office.

Enquiries about academic aspects of the post should be directed to the HEAD of the Department of Anatomy, Dr. W. L. Weller (tel. (61 02) 20 2665).

The Professorial salary is A\$67,812 per annum (currently under review), with a clinical loading for a medically or dentally qualified appointee of between A\$6,037 and A\$12,058, depending on the extent of clinical responsibilities undertaken.

Position information and application forms are available from Appointments (39574), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, or from the Staff Office Secretary at the University (tel. (61 02) 20 2013). Applications quoting ref. no. should reach the Staff Officer, University of Tasmania, G.P.O. Box 252C, Hobart, Tasmania 7001, Australia by 30 September 1991.

EQUAL EMPLOYMENT OPPORTUNITY AND A SMOKE-FREE
WORKING ENVIRONMENT IN SHARED WORKPLACES ARE UNIVERSITY POLICY

Senior Vice President-Research and Development:
Supervise and direct a staff of 50 senior scientists and researchers in all aspects of nutritional product research and development activities; participate with regulatory affairs professionals in obtaining governmental approval of new products from government agencies; hire, and promote senior chemical research personnel; formulate and implement all research and development management policies.

Ph.D degree in Food Science and Technology required. 2 years experience in the position or 2 years experience as a Managing Director required. Ph.D level research must include research in Photosynthetic Regeneration of ATP using Bacterial chromatophores; experience as a Managing Director must include primary authority over research and development functions for manufacture of biotechnology and/or medical products. 40 hrs./wk.; 9 a.m. - 5 p.m.; \$120,000.00 year. Must have proof of legal authority to work permanently in the U.S.

Send resumes to Illinois Job Service, 401 South State Street, 3 South, Chicago, Illinois 60605. Attn: Len Boksa #V-IL-2445-B. NO CALLS. AN EMPLOYER PAID AD.

PURDUE UNIVERSITY

SHOWALTER DISTINGUISHED PROFESSOR OF BIOENGINEERING

Due to the retirement of the current Showalter distinguished Professor of Bioengineering, the Schools of Engineering at Purdue University seek nominations and applications for the endowed Showalter Distinguished Professor of Bioengineering. This position is tenured in one of the eight Schools of Engineering and is associated with the interdisciplinary Hillenbrand Biomedical Engineering Center. The Hillenbrand Biomedical Engineering Center is composed of faculty and graduate students from engineering and life sciences who seek to improve the practice of medicine using engineering. The Center has clinical collaboration with Methodist Hospital and Indiana University Medical School. Purdue also has a joint M.D./Ph.D. program with Indiana University.

Purdue University is the state-supported, land grant institution in Indiana. The Schools of Engineering have over 275 faculty members, grant 1,150 or more B.S. degrees annually, enroll 1,800 graduate students and rank fifth nationally in the number of Ph.D. degrees granted annually.

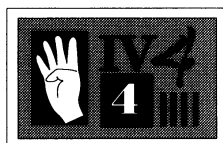
Applicants should be a recognized leader in bioengineering with a strong commitment to graduate education. The successful applicant will be expected to establish a research program in the frontiers of biomedical engineering and may also become a candidate for the position of Director of the Hillenbrand Biomedical Research Center, a position that will also be vacated by the retirement of the current Showalter Professor.

Nominations and applications should be sent to:

Dr. W. G. Tiederman, Chairman
Showalter Distinguished Professor Search Committee
1280 Engineering Administration Building
Purdue University, West Lafayette, IN 47907-1280
(317) 494-5341 or FAX (317) 494-9321

Every effort will be made to respect requests of confidentiality. This position is available July 1, 1991. Screening of applications will begin September 1, 1991 and continue until the position is filled.

Purdue University is an Equal Opportunity, Affirmative Action Employer



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CORTECH, INC.



Cortech is a Denver based pharmaceutical research and development company working in the areas of inflammation and immunology. Cortech offers a stimulating environment where a multidisciplinary approach is used to develop new therapies for human disease.

We are currently recruiting for positions in the following areas:

PEPTIDE CHEMISTRY

We are seeking Ph.D. level candidates in peptide chemistry or bio-organic chemistry with significant peptide chemistry experience and a minimum of 1-3 years postdoctoral experience. Research experience should include solution and solid phase peptide synthesis, purification, characterization and structure determination. Additional experience in the following areas would be helpful: stereoselective/stereospecific synthesis of novel amino acids, biochemistry, molecular modeling and HPLC.

MOLECULAR BIOLOGY

This position requires a Ph.D. and one or more years of postdoctoral training. Expertise with standard recombinant DNA methodology is expected. In addition, familiarity with one of the following areas is required: construction and immuno/receptor screening of single-stranded bacteriophage libraries, epitope mapping of proteins or characterization of proteins using immunological techniques.

DRUG DISPOSITION AND METABOLISM

We are seeking a senior scientist with experience in the design and conduct of ADME studies for the evaluation of novel chemical entities. The position requires extensive knowledge of FDA regulations and experience in the preparation of IND, NDA and/or PLA documents.

Qualified candidates must have a Ph.D. in Pharmacology or Toxicology and 3-5 years experience. Experience in an industrial situation is preferred and excellent team building, communications and written skills are required.

BIOPHYSICAL/ANALYTICAL CHEMISTRY

Applicants for this position should have a minimum of a Ph.D. and at least 2-3 years of post-doctoral experience in biophysical and/or analytical chemistry. Familiarity with the analysis of peptides, bio-organic constructs and other macromolecules is essential. The applicant should be skilled in some or all of the following techniques: peptide content and sequence analysis, CD spectroscopy of peptides, mass-spectroscopy of macromolecules, molecular modeling, 2-D/3-D NMR and/or mass analysis based on low angle light scattering.

RESEARCH ASSISTANTS

We are also seeking research assistants in the above areas and in immunology and biochemistry. Candidates will have a B.S. or M.S. and one or more years of experience in general laboratory techniques. Experience in tissue culture, ELISA, HPLC, enzyme assays and peptide and protein chemistry would be an advantage.

Successful applicants must be able to work independently in a multi-disciplinary research group. Cortech offers competitive salary and benefits packages including stock options. Please send resumes to: Personnel, Cortech, Inc., 6840 No. Broadway, Denver, Colorado 80221.

Seeing Beyond the Boundaries

At Berlex Biosciences, we are committed to the discovery of therapeutic products through research in oncology and cardiovascular disease. By recently adding two San Francisco Bay Area-based biotechnology organizations, Codon (in South San Francisco) and Triton Biosciences (in Alameda) to the Berlex family, Berlex is emerging as a major force in biotechnology research.

Currently, we have an exceptional opportunity in our Receptor Biochemistry group, located at our Alameda, California facility. In this position, you will work independently as well as in the dynamics of a team.

ASSOCIATE SCIENTIST

Your primary responsibilities will involve the biochemical characteriza-

tion of peptide receptors and their mechanisms of signal transduction. Your qualifications must include a BS/MS degree and 4 years of relevant experience with receptor systems, protein purification and characterization, or membrane biochemistry, or a recent Ph.D. in a related field.

As a U.S. subsidiary of an international Fortune 500 company, we provide a competitive salary with a full complement of benefits, plus a rapid growth environment that fosters and rewards innovation. For consideration, please send your resume to: **Berlex Biosciences, Human Resources, 213 E. Grand Avenue, South San Francisco 94080. We are an equal opportunity employer.**

BERLEX

THE BEST IS YET TO COME

Research Scientist Protein Physical Chemistry

Join ALZA and participate in some of the most exciting breakthroughs in pharmaceutical therapy. We're a leading manufacturer and developer of innovative drug delivery systems and currently have an opportunity available for a Research Scientist to work in our Palo Alto, California headquarters.

As a member of our growing team, you will contribute to the research and development of techniques to administer peptides and proteins. This research includes a variety of chemical, physical and biological approaches that will lead to successful commercial products.

Qualified applicants must have a PhD in Biochemistry or Physical Chemistry with a strong emphasis on protein physical chemistry along with 3-6 years' post-doctoral experience.

For immediate consideration, please call Darlene Markovich at (415) 494-5214 or send your resume to ALZA, Employment Dept., 950 Page Mill Rd., P.O. Box 10950, Palo Alto, CA 94303-0802. EOE.

alza

Associate Dean for Research, College of Agriculture and Assistant Director of the Minnesota Agricultural Experiment Station

The University of Minnesota invites nominations and applications for the position of Associate Dean for Research in the College of Agriculture and Assistant Director of the Minnesota Agricultural Experiment Station. This 12-month position assists the Dean of the College of Agriculture, who also holds the position of Associate Director of the Experiment Station, in managing and coordinating research activities across the eleven College of Agriculture departments and the Agricultural Experiment Station, and has primary responsibility and authority for administering six Branch Stations. In cooperation with the Dean and Associate Director and other administrators, the person in this key position will establish research priorities, review and evaluate faculty performance, advise in hiring new faculty and arrange for their start-up funding. The Associate Dean and Assistant Director reports directly to the Dean, College of Agriculture and Assoc. Director of the Experiment Station. The person in this position shall be appointed to an initial 3-year academic administrative term. Reappointment to annual terms is dependent upon continued satisfactory performance evaluations. Academic rank and tenure are dependent upon recommendations of peer faculty in an appropriate department.

The College of Agriculture and the Minnesota Agricultural Experiment Station are part of the Twin Cities Campus of the University of Minnesota, a large land-grant university located in a metropolitan area of about 2.2 million people. Faculty members of the College divide their time among the functions of resident teaching, research and extension and are nationally and internationally known for their disciplinary and interdisciplinary programs that have contributed significantly to the land-grant mission of the University.

Qualifications: an earned doctoral degree in an agricultural, biological or food-related field and 5 years of professional, post-doctorate research experience.

Send nomination(s) or an indication of interest to: **Dr. James P. Houck, Chair, Search Advisory Committee, 277 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108-1030. Application materials will be forwarded. Telephone: 612-625-0231.** Completed applications must be postmarked by October 1, 1991.

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

ENVIRONMENTAL TOXICOLOGIST

The Dow Chemical Company, a recognized leader in Industrial Toxicology, has an opportunity for an Environmental Toxicologist. This person will provide leadership in the invertebrate toxicity area of our Environmental Toxicology and Chemistry Research Laboratory located in Midland, Michigan.

We are seeking an individual with doctoral level training or equivalent experience who has demonstrated expertise in acute and chronic aquatic invertebrate test methods. Knowledge of NPDES test methods and/or sediment toxicity experience is desirable. Strong communication skills, both written and oral, as well as excellent interpersonal skills, are required to interact effectively in a team/work environment.

The Dow Chemical Company provides a stimulating and challenging scientific environment which allows for both scientific and professional growth. In addition, we offer a competitive salary and benefits package. Please send your resume to: **Technical Recruiting, Department ET-2, The Dow Chemical Company, 1801 Building, Midland, MI 48674.** An Equal Opportunity Employer M/F/H/V.



POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

Position immediately available in molecular neurobiology. Ph.D. or training in molecular biology essential for studies of molecular mechanism of functional recovery after neural injury in animal stroke/head injury models. Please send curriculum vitae and three letters of recommendation to: **C. Y. Hsu, M.D., Ph.D., Division of Restorative Neurology, Baylor College of Medicine, 1 Baylor Plaza, Room S815, Houston, TX 77030, or FAX: 713-798-3683.**

UCSF INFORMATION SPECIALIST

The Human Genome Mapping Center (HGMC) at the University of California, San Francisco (UCSF), seeks an information specialist to design and implement a hardware and software system for data processing. Applicants need an M.S. in computer science; a track record of producing working systems; and extensive experience in data management, systems, and local area network design; software engineering including use of TCP/IP Ethernet, UNIX, X11, workstations (i.e., Sun and Macintosh), and server-client relational database systems. Applicants need a strong interest in the application of computer science to molecular biology. The person will contribute intellectually to the biological research program, work closely with researchers, and supervise one to three programmer/analysts. Send résumé and names of three references to: **Dr. Richard M. Myers, Department of Physiology, Box 0444, University of California, San Francisco, CA 94143. The University of California is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH INVESTIGATOR

The Molecular and Cell Biology Division of Searle Research and Development, located in St. Louis (Chesterfield), Missouri, is seeking a research investigator to join an interdisciplinary team focused on the discovery of novel therapeutic modalities for the treatment of human infectious diseases. The selected scientist will help implement an independent research program in the identification and evaluation of potential molecular targets for the control of human pathogens. Candidates should have a Ph.D. degree and 2 to 4 years of relevant postdoctoral experience in cell biology or molecular biology and virology.

Searle, a wholly owned subsidiary of Monsanto Company, offers competitive salary and benefits plans. Qualified applicants should send résumé to:

**Research Investigator
Attention: K. Ruiter—BB4E
SEARLE
700 Chesterfield Village Parkway
St. Louis, MO 63198
An Equal Opportunity Employer.**

Mayo Clinic is seeking **SCIENTIST TO HEAD THE SECTION OF HEALTH SERVICES EVALUATION**. Applicants should have strong methodologic training with evidence of research productivity in terms of peer-reviewed publications and success in competing for research funding. An extramurally supported research program may focus on any aspect of health services evaluation, although opportunities in the Mayo environment may be greatest in technology assessment. The individual selected will be expected to develop and coordinate a cohesive working group of investigators, clinicians, and research fellows and to serve as a role model and catalyst to encourage interested clinicians to become actively involved in health services research. Ample resources are available to support efforts to develop a high caliber research unit and specific research programs. Opportunities derive from an extensive clinical database at Mayo and include the capability for population-based research among residents of Olmsted County, Minnesota, through the Rochester Epidemiology Project. Collaboration is available and encouraged with the closely integrated Sections of Biostatistics, Clinical Epidemiology, and Medical Information Resources. Academic rank will be commensurate with the candidate's qualifications and experience. There are no required patient care responsibilities, but practice opportunities are available. Salary and benefits are most competitive. Qualified applicants should submit curriculum vitae to: **Robert G. Tancredi, M.D., Mayo Clinic, Rochester, MN 55905. Telephone: 507-284-8294. Mayo Foundation is an Affirmative Action and Equal Opportunity Educator and Employer.**

POSITIONS OPEN

MOLECULAR ONCOLOGIST/VIROLOGIST

Ph.D. with at least 5 years of experience in studying oncogenes and role of nuclear oncogenes in growth and muscle differentiation. Experience in constructing, cloning, and sequencing of genomic clones and cDNA libraries. Must have experience in generation of transgenic mice using oncogenes and their analysis with respect to effects on muscle growth and differentiation. Hands on experience with avian and mammalian cell culture, transfection, transformation, and viral infections using retroviruses and retroviral vectors. A proven record of publication in international scientific journals and excellent verbal communications skills are necessary for the position. Salary commensurate with experience. Send résumé and evidence of qualifications to: **ABL-Basic Research Program, National Cancer Institute—Frederick Cancer Research and Development Center, Box B, Building 428, Frederick, MD 21702. Affirmative Action/Equal Opportunity Employer.**

Beth Israel Hospital—Harvard Medical School solicits applications for a **STAFF RESEARCH POSITION** in the Department of Pathology in the field of developmental neurobiology and cell differentiation. Candidates should be well-trained cell and molecular biologists with an M.D. or Ph.D. degree. They should have broad experience in molecular biology and neuropharmacology, ideally including the application of these approaches to the analysis of the role of growth factors, and their receptors in regulating cell-cell interactions. Evidence of substantial research productivity is required. The individual selected will need to obtain independent research funding. Harvard Medical School appointment at the level of instructor is available to the suitably qualified candidate. Please send curriculum vitae and three letters of reference to: **Dr. Stephen J. Galli, Director, Division of Experimental Pathology, Department of Pathology, Research East, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215. We are an Equal Opportunity Employer.**

SENIOR SCIENTIST. Exploration and development of new generation construction products focusing on improvement of inertness toward light, efflorescence, water resistance, etc. Study mechanism of polymer-modified cement hydration process. Apply advanced analytical advanced methods and polymer design and synthesis techniques to conceive, develop, test, and commercialize new products. Substantial instrumentation utilization, e.g., TGA, electromicroscopies, NMR, IR, UV-vis spectroscopy, etc. Requirements: Ph.D. physical organic chemistry and 1 year of experience with demonstrated ability to do creative research and development with broad-based chemistry background including physical organic, inorganic, surface, polymer, and photochemistry. Strong background in advanced analytical methods of polymer design and synthesis techniques and strong physical chemistry background. Forty hours per week; salary: \$51,200 per year; submit résumé or curriculum vitae to: **Philadelphia Job Bank, 444 North 3rd Street, Philadelphia, PA 19123, NO #4382549; must show proof of legal right to work permanently in the United States.**

HENRY FORD HEALTH SCIENCES CENTER AND RESEARCH INSTITUTE

BIOMEDICAL RESEARCH SCIENTIST/BIOCHEMICAL PHARMACOLOGIST. Henry Ford Health Sciences Center, Department of Anesthesiology and Research Institute, invites applications for senior research staff scientist. Individual will establish a program for investigations of the pharmacodynamics of anesthetic agents and other drugs, at the cellular level. Applicants should have Ph.D. or M.D., with a minimum of 3 years of postdoctoral experience in cellular/molecular biology and demonstrated ability to develop a strong independent program involving cellular regulatory mechanisms. Applicant should have sufficient training and experience as principal investigator in the field of molecular and cellular biology to allow effective competition for independent research funding at national level. Excellent compensation and benefits with opportunities for joint academic appointment and teaching at area university graduate schools.

Send curriculum vitae, description of research interests and experience, and names and addresses of three references to: **Russell Van Dyke, Ph.D., Director, Anesthesia Research, Henry Ford Hospital, 2799 West Grand Boulevard, Detroit, MI 48202, or FAX: 313-876-2018. Henry Ford Medical Group is an Equal Opportunity Employer.**

POSITIONS OPEN

ASSISTANT/ASSOCIATE RESEARCH MOLECULAR BIOLOGIST

Program in transplant immunology is offering a position for a molecular biologist/molecular immunologist. Position involves studies of HLA gene regulation, DNA binding proteins, and HLA allele definition utilizing molecular approaches to gain a better understanding of antigen presentation and tolerance induction. Candidates should have Ph.D. degree with at least 2 years of postdoctoral training. Salary range: \$41,600 to \$64,000 depending on experience and qualifications.

Send curriculum vitae and references to: **Marvin R. Garovoy M.D., University of California, San Francisco (UCSF), 520 Health Sciences East, Third and Parnassus Avenue, San Francisco, CA 94143-0508.**

UCSF is an Affirmative Action/Equal Opportunity Employer.

PLAYFAIR NEUROSCIENCE UNIT THE TORONTO HOSPITAL RESEARCH SCIENTIST

The Playfair Neuroscience Unit is seeking a neurobiologist with research expertise in: signal transduction/cellular second messengers. Candidates with research interests focusing on ion channels, biochemistry of signal transduction, or molecular biophysics of ion channels are particularly encouraged to apply.

The Playfair Neuroscience Unit is a dynamic multidisciplinary unit comprising over 20 laboratories situated in a major teaching hospital of the University of Toronto, having close interactions with other major units throughout the university. Strong cell biology and immunology programs are also at this hospital. Successful candidates will have university appointments and are expected to develop long-term independent research programs. Apply before 1 September 1991. Send curriculum vitae, an outline of future research plans, and arrange for three letters of reference to be forwarded to: **Dr. Peter L. Carlen, Director, Playfair Neuroscience Unit, Toronto Western Hospital, 399 Bathurst Street, Toronto, Ontario, M5T 2S8, Canada.**

Both men and women are encouraged to apply. In accordance with Canadian immigration guidelines, priority will be given to Canadian citizens and landed immigrants.

ASSISTANT RESEARCH BIOCHEMIST

The Cardiovascular Research Institute, University of California, San Francisco, invites applications for appointment as an assistant research biochemist to carry out on-going research on structure-function relationships on enzymes of plasma cholesterol metabolism. The successful applicant will join a group of investigators studying the molecular and cellular basis of atherosclerosis. Applicants must have at least 3 years of demonstrated successful postdoctoral research experience in site-directed mutagenesis and the expression of mutant enzymes in mammalian cell systems. Experience of activity- and immuno-based assays for these enzymes would be an advantage. Salary will be within the range \$41,600 to \$45,100. Curriculum vitae, a summary of research interests, and the names of three referees should be sent to: **Dr. Christopher J. Fielding, Cardiovascular Research Institute, Box 0130, University of California Medical Center, San Francisco, CA 94143. Telephone: 415-476-4307. The University of California, San Francisco, is an Equal Opportunity/Affirmative Action Employer. Minority, women, handicapped, and veteran candidates are encouraged to apply.**

SCIENTIST, PROCESS DEVELOPMENT. Madison, Wisconsin. Perform cloning and expression of various modifying enzyme genes; overproduction and purification of DNA binding proteins, amplification of genes using polymerase chain reaction, DNA sequence analysis, QC for molecular biology products; coordinate exchange of scientific information between company and China. Ph.D. in biochemistry plus 1 year in job or 1 year as research assistant in biochemistry or molecular biology, or M.S. in biochemistry plus 3 years in job or 3 years as research assistant in biochemistry or molecular biology, or B.S. in biochemistry plus 5 years in job or 5 years as research assistant in biochemistry or molecular biology. Must have published a minimum of three papers in biochemistry, and read/write/speak Mandarin Chinese. Forty hours per week; salary: \$25,000 per year. Send résumé/letter to: **Alexis Taylor, Madison Job Service Office, 201 East Washington Avenue, P.O. Box 7903, Madison, WI 53707-7903. JO#0389534.**

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Marion Merrell Dow Research Institute is recognized for its innovative and successful approach to drug discovery. We're also known for the outstanding quality of our scientific environment and the career opportunities we provide.

Director of CNS Research, Cincinnati Center

Due to an internal promotion, we are now looking for a Director of the Central Nervous System Disorders Department at our global research headquarters site in Cincinnati, Ohio. The successful candidate will manage and give scientific leadership to a large group of highly competent and experienced neuroscientists.

This senior level position is a challenging opportunity that requires demonstrated success in neuroscience research related to drug discovery. Selected candidate will have a Ph.D. or M.D. with a minimum of 5-10 years post-doctoral experience and an impressive publication record. Experience in managing a research budget, hiring and motivating scientists and running a successful research department are essential. Knowledge of molecular biology and pharmaceutical industry experience would be desirable.

As an international leader, Marion Merrell Dow is committed to ongoing major research efforts. Our Cincinnati location provides an affordable, family-oriented, yet cosmopolitan quality of life. We offer an excellent compensation and benefits program including bonus, 401(k), and stock options. For consideration, send a resume with salary history to: Marion Merrell Dow Inc. Staffing Dept. MGP, P.O. Box 9617, Kansas City, MO 64114. Equal Opportunity Employer.



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RADIATION SCIENTIST

The Health Physics Department of the Merck Sharp and Dohme Research Laboratories has an immediate opening for a radiation scientist to provide technical consulting to scientists on innovative and safe uses of radiation and radioactive materials in the research and development of new pharmaceuticals. The successful candidate will be responsible for providing the research staff with training and information regarding the use of radiation, radioactive materials, radiation detection methods and instrumentation, and in developing new techniques utilizing radiation or radioactive materials.

The ideal candidate will have a Ph.D. in radiation physics, biophysics, radiation biology, radiation chemistry, or equivalent, and broad experience in the use of radiation and radioactive materials in biological/medical research. A working knowledge of research techniques in the areas of molecular or cellular biology is desirable. An ability to interact one-on-one with individuals from a broad spectrum of disciplines is essential.

Merck offers excellent salary and career opportunities as well as a generous benefit program. The position is located in Rahway, New Jersey, approximately 25 miles from New York City. Interested applicants should submit a resume and the names of three references to: Christine Cantone, MERCK SHARP & DOHME RESEARCH LABORATORIES, Personnel, P.O. Box 2000, AD #88, Rahway, NJ 07065.

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PENNSTATE



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CHAIR, Department of Biological Chemistry

Applications and nominations are invited for the position of Chair, Department of Biological Chemistry, The Pennsylvania State University College of Medicine. The Department has a tradition of excellence in research as well as teaching, and the individual research programs of the faculty are currently well supported by extramural funding. Current research strengths represented in the Department include: molecular genetics, biochemistry of cell surfaces, and protein-nucleic acid interactions. The Department offers courses covering various aspects of biochemistry, genetics, and molecular biology for medical and graduate students. The faculty directs its own departmental graduate program and also participates in three interdepartmental graduate programs and a College of Medicine M.D./Ph.D. program. Unique opportunities are available for departmental growth and development in a rapidly expanding academic medical center.

Candidates should be established investigators with a well-funded active research program, an outstanding record of scholarly contributions, and an active record of participation in appropriate professional organizations. Candidates should also have proven leadership skills and should be experienced in teaching and administration. The successful candidate is expected to provide imaginative leadership for current and future programs and to promote the national and international stature of the Department.

The deadline for application is October 31, 1991.

Applications with curriculum vitae and the names and addresses of three or more references should be addressed to:

Leonard S. Jefferson, Ph.D.
and Richard J. Courtney, Ph.D.
Co-Chairs, Biological Chemistry
Search Committee
The Pennsylvania State University
College of Medicine
P.O. Box 850, Drawer S
Hershey, Pennsylvania 17033

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Women and Minorities are Encouraged to Apply.

POSITIONS OPEN

RESEARCH INVESTIGATOR. The employee will conduct sinusoidal analyses and ATP hydrolysis rate measurements on single muscle fibers and analyze the results by using linear algebra on computers, as well as conduct biochemical analysis of the muscle fibers. The applicant must have experience in microdissection of muscle fibers from skeletal, cardiac, and smooth muscles; and in protein purification, including the techniques of column chromatography, SDS-PAGE, HPLC, spectrophotometry, and ELISA. Knowledge in histology and also in advanced mathematics through calculus is essential. An M.D., Ph.D., or equivalent is required. This is a nontenure-track position with a yearly salary of \$27,500. *Women and minorities are encouraged to apply.* Send curriculum vitae and three reference letters to: **Dr. M. Kawai, Department of Anatomy, University of Iowa, Iowa City, IA 52242. The University of Iowa is an Equal Employment Opportunity/Affirmative Action Employer.**

TOXICOLOGIST. The University of Nebraska Medical Center seeks an experienced Ph.D. toxicologist to develop a collaborative program to study the direct and interactive health effects of nitrates, pesticides, and other ground water contaminants, in both animal models and humans. The appointee will be expected to develop a strong research program complementing ongoing research activities, seek extramural funding, supervise graduate students, and participate in intercampus toxicology and water-related teaching and research activities. Academic rank and salary in this tenure-leading position are dependent on qualifications and experience. Please send curriculum vitae, a summary of current research, and the names of three references to: **Dennis D. Weisenburger, M.D., Chairman, Water Toxicologist Search Committee, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-3135. An Equal Opportunity/Affirmative Action Employer.**

MARINE SCIENTIST SENIOR (#113)

Grade 12. Entry salary: \$27,538. Starting salary may be higher depending upon experience or exceptional qualifications and previous salary level of appointee. This is a restricted appointment with funding which is subject to renewal 30 June 1992. Some evening and weekend work will be required.

The successful applicant will develop, coordinate, and implement research and monitoring projects at CB-NERRS-VA sites. Trains volunteers, serves as staff scientist to research advisory committee, and performs other related duties.

Qualifications—Ability to perform strenuous work outdoors in a variety of weather conditions required. Master's degree in biology or a related field required. Demonstrated familiarity with the design and conduct of field research projects, statistical analysis, and advanced microprocessor analytical procedures required. Working knowledge of the Chesapeake Bay ecosystem, National Estuarine Research Reserve System, and National Marine Sanctuary Program required. Strong communication and interpersonal skills required. Ph.D. degree in marine science or a related field or an equivalent combination of experience and training preferred. Location—Virginia Institute of Marine Science (Dean/Director's office).

A Commonwealth of Virginia application must be received not later than 9 August 1991 in the **Office of Personnel Services, College of William and Mary, Thiem House, Williamsburg, VA 23185. The College of William and Mary is an Equal Opportunity/Affirmative Action Employer.**

MOLECULAR BIOLOGIST/BIOCHEMIST

The Molecular Biology Department of Northrup King Co. is recruiting an M.S. level molecular biologist/biochemist to join our research program on corn transformation. Experience with molecular biological techniques including analytical blotting (Northern, Southern, and Western) is required with PCR knowledge desirable. Experience with microanalyses a plus. The position will be located at the Northrup King Research Center, Stanton, Minnesota, and candidates will be expected to interact extensively with transformation research groups at Stanton, Minnesota and Palo Alto, California. Please send résumé along with names, addresses, and telephone numbers of three references to:

**Kate Schweich
Northrup King Co.
Highway 19
Stanton, MN 55018-9662
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POSITIONS OPEN

BIOCHEMICAL PHARMACOLOGIST. To supervise and conduct studies of the absorption, distribution, metabolism, excretion, and bioavailability of chemicals in laboratory animals; develop and apply analytical procedures for endogenous and exogenous chemicals in biological fluids and tissues to assess pharmacokinetic properties; establish and maintain a research program in a relevant area of biochemical pharmacology; prepare proposals and reports for various government and industrial clients. A Ph.D. in biochemistry, pharmacology, or closely related discipline with 3 to 5 years of postdoctoral training or industrial experience is required. A good publications record (e.g., several as a senior author) is necessary to demonstrate competency and experience. Salary: \$45,000 to \$55,000 depending on experience. Send résumé to: **C. T. Sison, AA210, SRI International, 333 Ravenswood Avenue, Menlo Park, CA 94025. An Equal Opportunity Employer.**

SRI International

PALEOECOLOGISTS

The Harvard Forest LTER program is investigating the history of vegetation, environmental change, and human activity during the past 2000 years in central New England. We are seeking two individuals (one Ph.D., one M.S. or B.S.) to join an interdisciplinary research group consisting of historical, community, and ecosystem ecologists. Research will involve fine resolution pollen and charcoal analysis and quantitative integration of modern, historical, and paleoecological data. Funding is available for a minimum of 2 years. Please send curriculum vitae, three letters of support, and relevant publications to: **Dr. David R. Foster, Harvard Forest, Harvard University, Petersham, MA 01366, by 30 August 1991.**

Harvard University is an Equal Opportunity Employer and applications from women and minorities are strongly encouraged.

PSYCHOLOGIST/BIOLOGICAL SCIENTIST

The National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control, is seeking a **CHIEF** for the Applied Psychology and Ergonomics Branch, Division of Biomedical and Behavioral Science, in Cincinnati, Ohio. The successful candidate will manage NIOSH's principal research program addressing occupational exposure to behavioral, psychological, and ergonomic factors of relevance to worker health and well-being. Candidate should have research expertise and publications in one or more of these areas as well as experience in research program development and management. The position may be filled as a commissioned officer in the PHS or in the career civil service (GM-14 or GM-15); salary range: \$52,406 to \$80,138 depending on qualifications. Interested candidates should send an application (U.S. standard form 171) and curriculum vitae to: **Ms. Nancy Bryant, NIOSH-DBBS, M-S C-22, 4676 Columbia Parkway, Cincinnati, OH 45226. Telephone: 513-533-8463. NIOSH is an Equal Opportunity Employer and offers a smoke-free environment.**

BIOCHEMISTRY CARDIOVASCULAR DRUG RESEARCH

Searle, a wholly owned subsidiary of Monsanto Company and a world leader in pharmaceutical research, is seeking a **RESEARCH BIOLOGIST** to conduct experiments directed toward the discovery of new cardiovascular drugs. The successful candidate should have a B.S., in biological sciences, with an M.S. in biochemistry or pharmacology preferred. A minimum of 3 years of laboratory experience in several of the following areas is desirable: enzyme assays, immunoassays, receptor binding methodology, column chromatography, and cell culture. Strong communication skills are necessary.

Searle offers a competitive salary and benefit package. Qualified candidates should send their résumés in confidence to:

**Research Biologist
Attention: K. Ruiter—BB4E
SEARLE
700 Chesterfield Village Parkway
St. Louis, MO 63198
An Equal Opportunity Employer.**

ANNOUNCEMENTS

REQUEST FOR PROPOSALS. The Colorado Department of Health is requesting proposals for a Risk Characterization Study and a Risk Communication Plan for the Rocky Flats Nuclear Weapons Plant near Denver. These projects are follow-ups to the current Toxicologic Review and Dose Reconstruction. Interested bidders must contact **Kathleen Bogert** by 9 August 1991, telephone: 303-331-6736, 4210 East 11th Avenue, Denver, CO 80220 to receive information and bidder requirements on the two projects.



**AMERICAN
HEALTH
ASSISTANCE
FOUNDATION**

RESEARCH GRANTS

The American Health Assistance Foundation invites applications for the following programs:

- **Alzheimer's Disease Research:** grant awards of up to \$100,000 per year for up to 2 years (renewable) for research into the causes and treatment of Alzheimer's disease. Application deadline: 31 October 1991.
- **Glaucoma Research:** grant awards of up to \$25,000 per year for 1 year (renewable) for research into the causes and treatment of glaucoma. Application deadline: 30 November 1991.
- **Coronary Heart Disease Research:** starter grants up to \$15,000 per year for 1 year (renewable) for research into the cause and treatment of coronary heart disease. To qualify for a starter grant, the investigator must be an assistant professor (or equivalent) beginning an independent research career. Application deadline: 31 October 1991.

For information and application forms, contact:

**Research Grants Manager
American Health Assistance Foundation
15825 Shady Grove Road, Suite 140
Rockville, MD 20850
Telephone: 301-948-3244**

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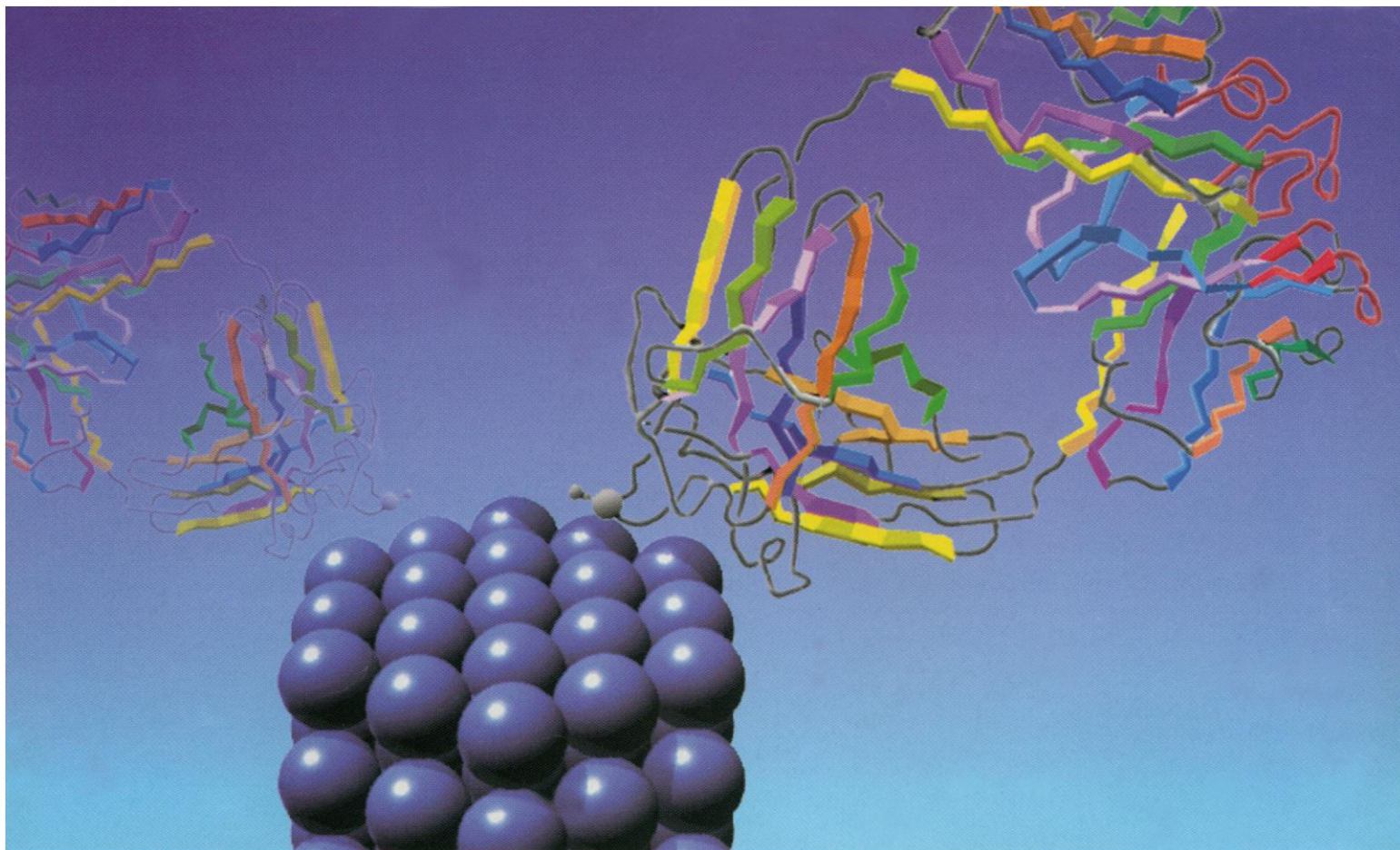
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Cambridge Antibody Technology are co-inventors of the phage antibody system¹, which has been used successfully to express functional Fab, Fv and VH antibody fragments, to isolate new antibodies, and to separate high and low affinity antibodies to the same antigen.

Licenses covering the commercial use of the phage antibody system are now obtainable. In addition, Cambridge Antibody Technology's expertise in other licensed key technologies is now available on contract in the following areas:

Humanising key rodent monoclonal antibodies for therapeutic use

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Improvement of existing monoclonals - don't lose your valuable antibodies!

Unstable human and mouse hybridomas can be rescued by accessing the antibody genes directly^{3,4},

producing stable mammalian or bacterial cell lines. Furthermore, increases in affinity and specificity and other modifications can be engineered. Cambridge Antibody Technology's methodology can be used to switch to substantially cheaper bacterial production systems.

The isolation of new human (and murine) antibody specificities - best in a thousand or one in a million?

Cambridge Antibody Technology's system of displaying and selecting antibodies on phage particles allows the prompt and efficient isolation of human and mouse antibodies from vast libraries, selecting the best from 10 million or more candidates. This is compared with the few thousand screened in a traditional hybridoma fusion or the few hundred from the best human mAb isolation systems. Affinity selection by chromatography or patented filter techniques is available⁵.

The Company's expertise is reinforced by a scientific advisory board comprised of world-leaders in antibody engineering. For more

information on Cambridge Antibody Technology's expertise in molecular biology, contact David Chiswell on Cambridge (0223) 837526.



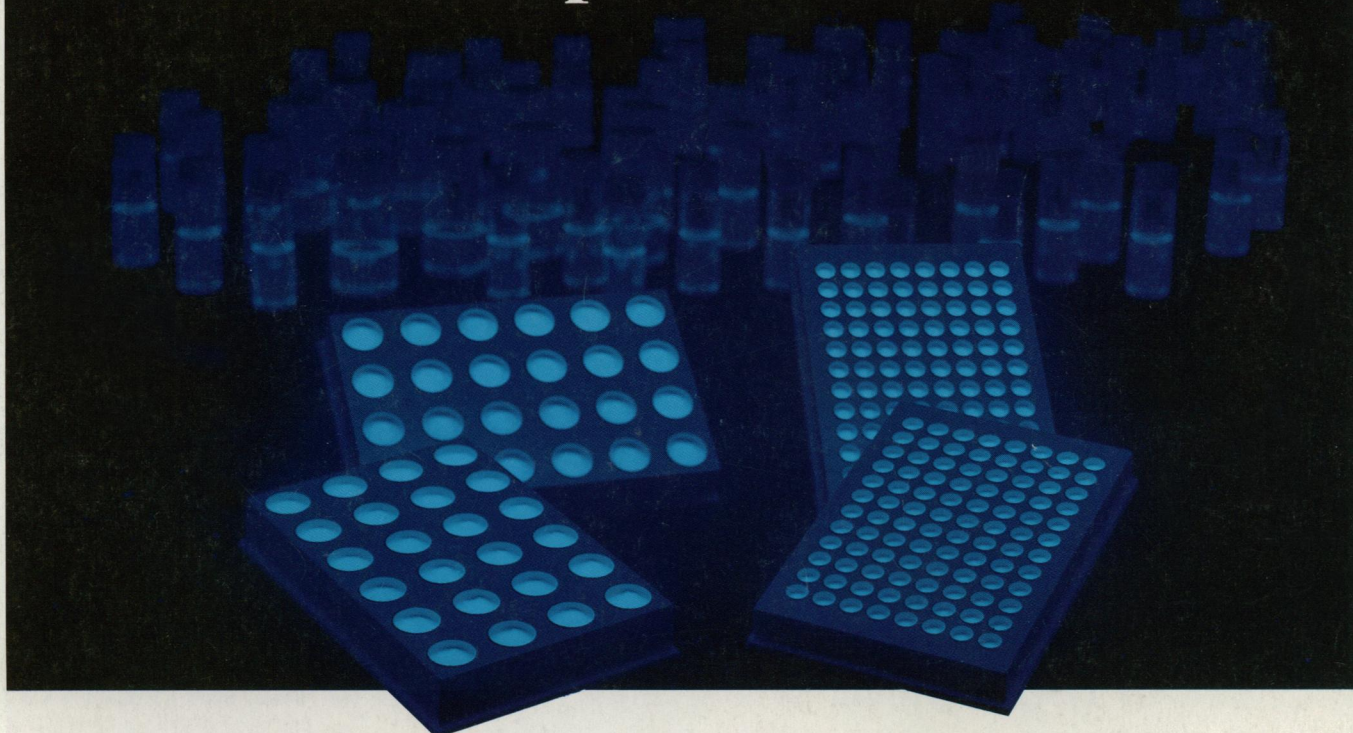
Cambridge Antibody Technology Limited

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1. McCafferty J., Griffiths A. D., Winter G., and Chiswell D. J. (1990) Nature 348 pp 552-554. 2. Riechmann L., Clark M., Waldmann H. and Winter G., (1988) Nature 332 pp 323-327. 3. Orlandi R., Gussow D. H., Jones P. T., Winter G., (1989) PNAS 86 3833-3837. 4. Winter G. and Milstein C., (1991) Nature 349 pp293-299. 5. Gherardi E., Pannell R., and Milstein C. Immunology Methods (1990), 126 pp61-68.

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