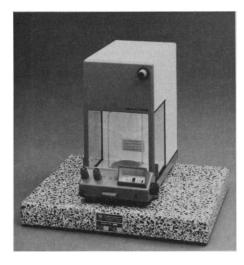
#### Products & Materials

#### Vibration-Damping Mount

The Scienceware Vibrasorb mount reduces vibrations that disturb the accuracy of sensitive analytical balances. The mount isolates instruments from disturbances caused



by nearby pumps, blenders, stirrers, centrifuges, and other equipment. It absorbs vibrations as low as 9 Hz. It will support items weighing up to 16 kg. Bel-Art Products. Circle 456.

## UNIX Version of Math Software

A UNIX version of MathCAD advanced mathematics software has been developed for use on Sun Microsystems workstations. The program adds to MathCAD's existing IBM-compatible and Macintosh product family. MathSoft. Circle 473.

### Fiber Optic Light Sources

An expanded line of halogen light sources for endoscopic, microscopic, and borescopic applications provides reliable uninterrupted fiber-optic light in a continuous range of intensities. Light can be gradually concentrated or subdued in all three new systems.

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.

The FO-150DPHM does so via a diaphragm. The FO-150 and the SLS-150 systems adjust light intensity via an integral electrical phase control rotary dimmer switch that is mounted on the front panel. Each light source can be used with either single or bifurcated flexible fiber bundles and ring lights. Chiu Technical Corp. Circle 465.

## Data Acquisition and Graphics Software

ASYST software version 3.1 is a fully integrated, data acquisition, control, analysis, and graphics software package designed for use with IBM PC, XT, AT, PS/2, and compatible computers. Four compatible modules perform scientific and engineering tasks. Modules 1 and 2 perform tasks such as basic math, number types, file conversions, external language interfaces, utilities, control structures, waveform processing, curve fitting, polynomial and matrix math, statistics, graphics, and RS-232 interfacing. Module 3 performs data acquisition and control tasks. Module 4 is a GPIB/IEEE-488 interface capable of controlling hundreds of GPIB instruments and supporting up to 56 GPIB instruments simultaneously. Keithley Metrabyte. Circle 475.

### Clean-Room Telephone

The Model 295 Clean Phone is designed to reduce clean-room contamination caused by traditional telephones. Available in flush or wall-mount styles, the phone features a completely smooth, easy to clean front panel



free of crevices that can trap particulate matter. An integral speaker-microphone replaces the telephone handset. The phone also features an "auto answer" capability, allowing users to remain at their stations while answering calls. GAI-Tronics Corp. Circle 468.

#### Mass Spectrometers

The 900 Series benchtop quadrupole mass spectrometers provide trace analysis of environmental and drug-testing samples. Integrated with a 9000 Series gas chromatograph and high-speed personal-computer controller, the 900 Series identifies unknowns by comparing classical spectra to the 49,000-compound library stored on the hard disk of the computer. The system features full-color graphics and an MS-DOS-based operating system for greater versatility. Tracor Instruments. Circle 466.

### Nonradioactive RNA Labeling Kit

The Genius RNA Labeling Kit generates nonradioactive RNA probes. The kit provides all the essential reagents for labeling RNA with the steroid hapten digoxigenin. RNA probes are labeled with SP6 or T7 RNA polymerase catalyzed in in vitro transcription reactions. The digoxigenin-labeled probes can be used in almost all hybridization reactions, including Northern (RNA) and Southern (DNA) blotting and in situ hybridizations. Hybrids formed between probe and target nucleic acid are detected with anti-digoxigenin, alkaline phosphatase-conjugated antibodies. Boehringer Mannheim Biochemicals. Circle 479.

#### Literature

GC/HPLC Demonstration Disk shows the basic features and operation of the Model 727 Chromatography Data Acquisition System and Controller. The disk can be loaded on any IBM PC-XT, AT, 80386, PS/2, or compatible with at least 512 K random access memory. Axxiom Chromatography. Circle 490.

FMI Metering Pumps is a 24-page catalog covering metering pumps, dispensers, and accessories. These valveless piston-type pumps feature low-dead volume, better than 0.1% repeat accuracy, flows from microliters to 2400 ml/min, and pressures to 100 psi. Fluid Metering Inc. Circle 491.

DAWN . . . Macromolecular Characterization by Multi-Angle Laser Light Scattering is a full-color brochure that describes multiangle instruments. The brochure explains the theoretical basis for the light-scattering measurements and how they are related to the determination of absolute molecular weights and sizes without the need for calibrations or reference standards. The brochure also describes custom software packages. Wyatt Technology Corp. Circle 530.

## Personnel Placement

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

#### LINE CLASSIFIED ADVERTISEMENTS

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

POLICIES: All classified ads will be edited and typeset according to SCIENCE style guidelines. NO ABBREVIA-TIONS. Any deadline for applications stated in ad must be at least 2 weeks after dalic of publication.

CLASSIFICATION: SCIENCE publishes line classified CLASSIFICATION: 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; however, SCIENCE reserves the right to decline classification requests which it believes may be misleading to regide to regide. ing to readers.

ing to readers.

RATE: \$41 per line, \$410 minimum, per week. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces per line. No charge for use of blind box number. No agency commission for ads less than 40 lines. To ESTIMATE ad cost, structure ad copy on a 52-character line; include any desired heading on 35-character lines. Each line of heading, one line of white space between heading and body of ad, and all partial lines (including centered reply information, if desired) are counted as full lines. Multiply total number of lines x \$41 = approximate cost of ad, per week. (This is an approximate cost of Ad, per week. (This is an approximate lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment. SCIENCE cannot provide proofs of typeset ads.)

CREDIT CARDS: SCIENCE accepts MasterCard and VISA.

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

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

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

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

Address ad copy or requests for information to:

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

#### **DISPLAY PERSONNEL ADVERTISEMENTS**

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

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

#### RESPONSES TO EMPLOYMENT ADS

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

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

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

#### **POSITIONS OPEN**

#### ANATOMIST/NEUROBIOLOGIST

The Department of Anatomy, Wright State University Medical School, invites applications for a tenure-track faculty position at the ASSISTANT PROFESSOR level. The applicant should have a Ph.D., M.D., or equivalent degree with postdoctoral experience in neurobiology. Preference will be given to individuals with research interests in neurobiology or endocrinology using contemporary cellular or molecular approaches. The candidate will be expected to carry on an active research program and to attract extramural funding. Primary teaching responsibility will be in neuroscience. Women and minorities are encouraged to apply. Applicants should submit their curriculum vitae, research interests, three recent reprints, and the names of three references by 15 December 1990 to:

John C. Pearson, Ph.D., Chairer, Search Committee Department of Anatomy Wright State University School of Medicine Dayton, OH 45435

Wright State University is an Equal Opportunity Affirmative Action Employer

Texas. ANATOMIST. Full-time, tenure-track position. Applicants should hold Ph.D. or M.D. degree, record of productive research in behavioral neuroscience involving primates and teaching experience in an anatomic discipline. Preference given to neuroanatomy. Salary commensurate with qualifications and appoint-

ment at associate professor level.
Send complete curriculum vitae, including names of three professional references, to: Dr. I. Steele Russell, Interim Head, Department of Anatomy, College of Medicine, Texas A&M University, College Station, TX 77843.

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

ASSISTANT PROFESSOR OF INORGANIC CHEMISTRY. Harvard University invites applications for an assistant professorship in any area of inorganic chemistry. Applicants should arrange to have three letters of recommendation sent independently and should provide curriculum vitae and brief descriptions of future research plans. Harvard University is an Affirmative Action/ Equal Opportunity Employer. Applicants from women and minority group members are welcome. Applications and supporting material should be sent no later than 30 November 1990 to: Professor R. H. Holm, Department of Chemistry, Harvard University, 12 Oxford Street, Cambridge, MA 02138.

The Division of Rheumatology in the Department of Medicine of the University of Tennessee, Memphis, is recruiting a scientist to participate in an established research program. The candidate must possess a Ph.D. in biochemistry or cell biology and qualify for an appointment at the ASSISTANT PROFESSOR level. Experience in enzymology and molecular biology is essential. Specifically, the candidate must be knowledgeable in enzyme kinetics, the principles of proteinase biochemistry, molecular cloning, expression of recombinant pro-teins, and site-directed mutagenesis. Understanding of the principles of inflammation and articular destruction is desirable. Qualified applicants should submit their curriculum vitae to: Dr. Carlo Mainardi, Chief, Medical ervice, Veterans Administration Medical Center, 1030 Jefferson Avenue, Memphis, TN 38104. The University of Tennessee, Memphis, is an Equal Employment Opportunity/ Title IX/Section 504/Affirmative Action Employer.

COLUMBIA UNIVERSITY, Department of Psychology, anticipates making three faculty appointments at the ASSISTANT PROFESSOR level in the general areas of developmental psychology, physiological psychology, and clinical/experimental psychopathology/health psychology. For all three positions, we seek recent Ph.D.'s who have demonstrated exceptional promise for excellence as a scholar-scientists, and who are outstanding teachers at both undergraduate and graduate levels. Applicants should submit curriculum vitae, copies of recent publications, and have three individuals familiar with their training and abilities write letters of recom-mendation to: Personnel Search Committee, Department of Psychology, Schermerhorn Hall, Box 29, Columbia University, New York, NY 10027. Applications from members of minorities and women are encouraged. Columbia University is an Affirmative Action/Equal Opportunity Employer.

#### **POSITIONS OPEN**

The Department of Biology at Hood College has two tenure-track ASSISTANT PROFESSOR positions, for geneticist and a physiologist, to begin August 1991. Each successful candidate will teach graduate and undergraduate courses. Hood College is a small liberal arts college with a significant nontraditional-age student population and graduate program. The biology department offers undergraduate B.A. degrees in biology and environmental studies, an M.A. in Environmental Biology, and an M.S. in Biomedical Science. Qualified applicants must have a Ph.D. degree and a commitment to research with students. Postdoctoral and teaching experience are desired. Hood College subscribes to the policy of hiring only U.S. citizens and lawfully authorized alien workers. We actively encourage applications from women and members of minority groups. Send curriculum vitae, undergraduate and graduate transcripts, statement of research interests, and three letters of recommendation to: Dr. Ann Boyd, Department of Biology, Hood College, Frederick, MD 21701 by 1 December 1990. An Equal Opportunity

COGNITIVE NEUROSCIENCE. The Psychology Department at the University of North Carolina (UNC) at Greensboro seeks applications for a tenure-track appointment, at the ASSISTANT PROFESSOR level, in the area of brain processes and cognitive functioning. Preferred applicants will have demonstrated a promise of excellence in research and commitment to teaching at graduate and undergraduate levels. Ph.D.-granting de-partment has 24 faculty members with strong interdisci-plinary links. Salary is competitive. Copies of curriculum vitae, representative publications, and three letters of reference should be sent to: Chair, Cognitive Neuroscience Search, Department of Psychology, UNC-Greensboro, Greensboro, NC 27412. Applications will be accepted until 21 November 1990, or until the position is filled. Applications from women and racial minorities are especially encouraged. An Affirmative Action/Equal Opportunity Employer.

#### CELL BIOLOGY/NEUROBIOLOGY

A tenure-track position, at the ASSISTANT PRO-FESSOR level, is available in the biology department at Wesleyan University for a person who is incorporating modern structural and molecular techniques into research addressing fundamental questions in neurobiology at the cellular level. The position is made possible through a grant from the Howard Hughes Medical Institute. Applicants should have postdoctoral experience and a demonstrated ability to develop an active research program. Other responsibilities include directing the research of Ph.D. students and teaching at the undergraduate and graduate level. Please send curriculum vitae, a statement describing a future research program, and arrange that three letters of recommendation be sent by 15 November 1990 to: Chair, Search Committee for Cell Biology/Neurobiology, Department of Biology, Wesleyan University, Middletown, CT 06457.
Wesleyan is an Equal Opportunity/Affirmative Action Institution. We encourage applications from minority candidates and women.

#### MOLECULAR GENETICIST

The search is re-opened for a tenure-track molecular reneticist at the level of ASSISTANT PROFESSOR in he Department of Biology, Carleton College, available September 1991. Teaching responsibilities include an upper level lecture/laboratory course in genetics; one in molecular biology, immunology, microbiology, or area of specialty; and participation in a team-taught introductory course in energetics/genetics. Faculty are expected to maintain a research program that encourages undergraduate participation and to actively seek external research support. Start-up funds are available. The department is most interested in persons with a commitment to teaching and research in the context of a liberal arts college. Ph.D. is necessary; postdoctoral experience is preferred. Under extraordinary circumstances appointment may be made at a higher rank. Women and minority candidates are strongly encouraged to apply. Send application, curriculum vitae, undergraduate and graduate transcripts, a statement of teaching philosophy, a summary of research goals, and three letters of recommendation to: G. J. C. Hill, Department of Biology, Carleton College, Northfield, MN 55057-4025 by 15 October 1990.

Carleton College is an Equal Opportunity/Affirmative Ac-

ASSISTANT PROFESSOR OF BIOLOGY. Applications are invited for a tenure-track position to begin September 1991. Preference will be given to candidates with expertise in the molecular biology of prokaryotes. Teaching responsibilities will include genetics, at least one advanced course in area of specialization, and participation in cell biology. Kalamazoo College is an excellent private liberal arts college that takes pride in the quality of its science program. High-quality teaching is of very high priority as is a research program that can engage undergraduates. Ph.D. required. Send letter of application, curriculum vitae, transcripts, statement of teaching and research interests, and three letters of recommendation to: Dr. Carolyn R. Newton, Department of Biology, Kalamazoo College, Kalamazoo, MI 49007. Review of applications will begin 1 November 1990. Affirmative Action/Equal Opportunity Employer. Kalamazoo College is committed to diversity and particularly encourages women and minorities to apply.

#### ASSISTANT PROFESSOR/BIOCHEMISTRY

Applications and nominations are invited for the position of assistant professor (tenure track) in the Department of Chemistry at The University of Toledo. A Ph.D. in chemistry or biochemistry is required, and recent productive postdoctoral experience is preferred. The successful candidate will be expected to establish an independent externally supported research program in biological chemistry. Applicants must also demonstrate a commitment to excellence in teaching chemistry and commitment to excellence in teaching chemistry at the undergraduate and graduate levels. An application consisting of curriculum vitae, a publications list, and a brief statement of research interests should be sent to: Professor Max O. Funk, Department of Chemistry, University of Toledo, 2801 West Bancroft Street, Toledo, OH 43606. Applicants should also arrange for three letters of recommendation to be sent Applications will be accepted until 1 Novement to be sent. Applications will be accepted until 1 November 1990 or until a qualified candidate has been identified. The University of Toledo is committed to Equal Opportunity in employment through Affirmative Action.

#### TWO ASSISTANT PROFESSORS

University of South Florida. Two tenure-track positions beginning 15 August 1991. Ph.D. in geography required. Candidates must have strong commitments to research, publications, and seeking external funding as well as to undergraduate and graduate teaching. Preferred specializations include physical (particularly digital terrain modeling, geomorphology), human (especially urban or political), and methodological (quantitative

analysis, remote sensing, GIS). Supporting regional specialty highly desirable. Salary competitive.

Apply to: Chair, Screening Committee, Department of Geography, SOC 107, University of South Florida, Tampa, FL 33620–8100.

Letters of application and a résumé must be postmarked no later than 1 December 1990. The University of South Florida is an Equal Opportunity/Affirmative Action Institution. Women and minorities are encouraged to apply. According to Florida law, applications and meetings regarding same are open to the public.

ASSISTANT PROFESSOR, DIVISION OF BIO-LOGICAL SCIENCES. Candidates for this tenure-track faculty position should use prokaryotic or eukary-otic microbial systems to answer fundamental questions in biology. Areas of strong research emphasis in the division include (i) cellular, molecular, genetic, and developmental biology; (ii) population biology, ecology, and evolution; (iii) plant sciences; and (iv) neurobiology, physiology, and behavior. We offer a highly competitive salary, generous start-up package, modern research lab-oratory and support facilities, an active graduate program with institutional support for students and postdoctoral associates, and an interactive faculty. We are firmly committed to fostering ethnic and racial diversity in our faculty. Applications from women and minorities are strongly encouraged. Applicants with a Ph.D., postdoctoral research experience, and a demonstrated potential for creative research should send their curriculum vitae, reprints of publications, statement of future research and teaching interests, and names, addresses, and telephone numbers of three references to: Dr. John David, Division of Biological Sciences, 110 Tucker Hall, University of Missouri, Columbia, MO 65211. Applications must be received by 1 February 1991 to receive full consideration.

#### **POSITIONS OPEN**

ASSISTANT PROFESSORSHIPS. The Department of Chemistry and Biochemistry of The University of Texas at Austin solicits applications for tenure-track assistant professorships anticipated to be available September 1991. Exceptional candidates in all areas of chemistry/biochemistry will be considered. Candidates who have demonstrated outstanding research ability and show promise in teaching should forward curriculum vitae, short descriptions of research plans, and three letters of reference by 1 November 1990 to: Search Committee, Department of Chemistry and Biochemistry, The University of Texas at Austin, Austin, TX 78712. Equal Opportunity/Affirmative Action Employer.

#### BIOCHEMISTRY ASSISTANT PROFESSOR

Kent State University invites applications for this tenure-track position to begin August 1991 in the Department of Chemistry. Research specializations in all areas of modern biochemistry will be considered but those involving the application of recombinant DNA methods are preferred. Candidates should have a Ph.D. degree and postdoctoral training is desirable. Submit curriculum vitae, undergraduate and graduate transcripts, description of research plans, and three letters of recommendation by 14 December 1990 to: Dr. Roger K. Gilpin, Chairman, Department of Chemistry, Kent State University, Kent, OH 44242. Equal Opportunity/Affirmative Action Employer.

#### ENVIRONMENTAL MICROBIOLOGIST TENURE TRACK

The Department of Biological Sciences, University of Cincinnati, has an opening for an environmental microbiologist at the ASSISTANT PROFESSOR level starting 1 September 1991. The university, a comprehensive state university, has an enrollment of about 36,000 students. The department has 30 full-time faculty, and is expanding in the areas of cellular and molecular biology, as well as environmental and evolutionary biology. There are about 70 graduate students, 65% are Ph.D. students. We seek a person who is studying the mechanisms of biodegradation of hazardous materials using physiological and/or molecular techniques, as well as having a strong interest in bioremediation and/or fermentation technology. The successful candidate will be expected to develop a vigorous, externally funded research program, train graduate students, and teach graduate as well as undergraduate courses in microbial physiology or applied microbiology. The position requires a Ph.D. and postdoctoral experience is preferred. Applicants should submit a description of their research interests, future research plans, and current curriculum vitae, and arrange to have three letters of evaluation sent to: Dr. J. Robie Vestal, Environmental Microbiology Search Committee, Department of Biological Sciences, University of Cincinnati, Cincinnati, OH 45221–0006 by 1 Nowalton 1000 vember 1990.

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

#### ASSISTANT PROFESSOR

The Division of Toxicology at the University of Ar-kansas for Medical Sciences invites applicants for two tenure-track positions at the rank of assistant professor Applicants must have a doctoral degree, postdoctoral experience, and the ability to develop an independent research program with extramural funding. Research emphasis should be in toxicology or a closely related discipline.

The Division of Toxicology offers both the M.S. and Ph.D. degrees. The division anticipates expanding to nine full-time faculty and will be housed in a new research building which is under construction. There are a number of adjunct faculty at the nearby National Center for Toxicological Research. The association between the division and the NCTR offers the opportunity for a variety of collaborative research efforts.

Qualified individuals are encouraged to forward their résumé, list of publications, and the names and addresses of three references to: Jack A. Hinson, Ph.D., Director, Division of Toxicology, Department of Pharmacology and Toxicology, College of Medicine, University of Arkansas for Medical Sciences, 4301 West Markam Street, Little Rock, AR 72205, by 30 November 1990. The University of Arkansas for Medical Sciences is an Equal Opportunity Employer. Qualified women and minorities are encouraged to apply.

#### **POSITIONS OPEN**

#### ASSISTANT PROFESSOR, PHYSICS

The Smith College Physics Department invites applications for a 3-year tenure-track appointment in experimental physics at the assistant professor level, starting 1 September 1991. The candidate should have a Ph.D., a commitment to undergraduate teaching, and should have a strong research program with projects which allow undergraduate involvement. Preference will be given to persons with postdoctoral experience. Funds are available to start or extend a research project. Located in western Massachusetts, Smith College is a leader in the education of women and has an outstanding record in the number of professional women physicists who are alumnae. The Five College Consortium, comprised of Smith, Amherst, Mt. Holyoke, and Hampshire Colleges and the University of Massachusetts, provides a rich intellectual and cultural life for faculty and students as well as additional collegial opportunities in teaching and research. A curriculum vitae, statement of teaching and research interests and experience, and three letters of reference should be sent to: Professor Bruce Hawkins, Chair, Department of Physics, Clark Science Center, Smith College, Northampton, MA 01063. Preference will be given to applications received before 15 November 1990. Smith College is an Affirmative Action/Equal Opportunity Institution. Minorities and women are encouraged to

#### MOLECULAR MICROBIOLOGY POSITIONS

Applications are invited for two tenure-track positions at the rank of ASSISTANT PROFESSOR in microbiology at the University of Arkansas. Successful candidates will have expertise in the molecular aspects of either humoral immunity, mutagenesis, anaerobic physiology, or microbial pathogenesis, and will teach B.S., M.S., and Ph.D. microbiology majors. Candidates must have a demonstrated record of research and a strong potential to develop an externally funded research program. Applications will be reviewed beginning 1 November 1990. Submit curriculum vitae, statement of teaching and research goals, and three letters of reference to: **Dr. D. E.** Talburt, Department of Microbiology, University of Arkansas, Fayetteville, AR 72701. The University of Arkansas is an Affirmative Action/Equal Opportunity Employer.

#### GROSS ANATOMIST

Department of Surgery, University of California, San Diego (UCSD). Tenure-track ASSISTANT PROFES-SOR position open to teach gross anatomy at the UCSD School of Medicine beginning 1 July 1991. This is mainly a teaching and research position, with some administrative responsibilities. It requires interest and ability to teach in the medical school core gross anatomy course and to offer and participate in elective teaching. The candidate must have a Ph.D. in anatomy and research competence of a degree to allow independent productivity and effective cooperative undertakings with others. Send curriculum vitae and names of three academic references to: N. A. Halasz, M.D., Professor and Head, Division of Anatomy, UCSD Medical Center, 225 Dickinson Street, San Diego, CA 92103. Position closes 31 January 1991. Salary per published University of California scale. Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY DARTMOUTH MEDICAL SCHOOL

Applications are invited from qualified individuals possessing a Ph.D. or M.D. degree and postdoctoral experience. Although preference will be given to applicants with a funded research program in neuropharmacology (e.g., signal transduction, molecular pharmacology or ion channels, developmental neurobiology, molecular aspects of neurodegenerative diseases), immunotoxicology (e.g., immuno-radiotherapy), or molecular toxicology, other areas of research will also be considered. Responsibilities will include medical and graduate teaching in pharmacology and/or toxicology. Applicants should forward a complete curriculum vitae including should forward a complete curriculum vitae including any teaching experience and grant support, an outline of future research plans, and three letters of reference to: Chairman, Department of Pharmacology and Toxicology, Dartmouth Medical School, Hanover, NH 03756. Deadline for receipt of these materials is 31 October 1990. Dartmouth College is an Equal Opportunity/ Affirmative Action Employer.

ASSISTANT PROFESSOR/MEDICAL MICRO-BIOLOGY. Tenure-track position September 1991. Undergraduate teaching in medical microbiology/technology and a graduate course in area of expertise. Productive research, pursuit of outside research support, and supervision of M.S. and Ph.D. students required. Ph.D. required, postdoctoral experience preferred, teaching experience desirable. Send curriculum vitae, statement of research goals, transcripts, and three letters of reference to: Medical Microbiology Search, Division of Biological Sciences, University of Montana, Missoula, MT 59812. Review of candidates begins 19 November 1990. An Affirmative Action/Equal Opportunity Employer.

NEUROSCIENCE. University of California, Santa Barbara (UCSB). The Department of Psychology announces a tenure-track position at the ASSISTANT PROFESSOR level in neuroscience, effective fall of 1991. Responsibilities include teaching at both undergraduate and graduate levels and supervision of students in research. Ph.D. required at time of appointment. Postdoctoral research experience and significant skills in neuroendocrinology/endocrinology and behavior desired. Potential areas of interest within the broad field of neuroendocrinology/endocrinology include neural control of endocrine secretions, the effects of hormones on the nervous system and/or physiology and behavior, hormones and development, or psychoneuroimmunology. Evidence of excellence in teaching and research is required. Salary and level depend on qualifications. Submit curriculum vitae and reprints, and arrange for three letters of recommendation to be sent to: Biopsychology Search Committee, Department of Psychology, UcSB is an Equal Opportunity/Affirmative Action Employer. Proof of U.S. citizenship or eligibility for U.S. employment will be required prior to employment (Immigration Reform and Control Act of 1986).

#### ASSISTANT PROFESSOR/BIOCHEMISTRY

Applicants are invited for a tenure-track position of assistant professor in biochemistry. Preference will be given to applicants working in molecular/biology genetics or protein structure-function relationship as determined by in vitro mutagenesis or nucleic acid structure-function relationship. Despite these preferences, applications from individuals having other research interests and expertise are encouraged. Applicants, who should have the Ph.D. and postdoctoral experience in biochemistry or a related field, will be expected to develop an active, externally funded research program, and to participate in the undergraduate and graduate teaching programs of the department. Normal teaching assignments are a one-semester lecture or laboratory course per academic year. Applications should include curriculum vitae, copies of publications, graduate and undergraduate transcripts, and a brief statement of current and future research interests. Three people, well acquainted with the applicant's research and teaching ability, should be asked to send letters of reference. Review of applications will begin in September 1990; interviews will be scheduled in late fall of 1990. Inquiries and applications should be directed to: Dr. James B. Blair, Head, Biochemistry Department, 454 PS II, Oklahoma State University, Stillwater, OK 74078–0454. Telephone: 405-744-6189; FAX: 405-744-5339.

Oklahoma State University is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT/ASSOCIATE PROFESSOR. The Department of Botany and Plant Pathology, Michigan State University, is seeking applicants for a 12-month, tenure-track position in the area of quantitative epidemiology, emphasizing modern concepts in population biology, plant pathology, and mathematical/ecological modeling. Areas of interest include soil or foliar host-parasite interactions, genetically transformed organisms, fungicide resistance, and model development and application. Cooperative development of interdisciplinary research and teaching programs will be encouraged. Requirements include a Ph.D. in plant pathology or closely related field. Send résumé, summary of research/teaching experience, statement of career goals, and three letters of reference to Dr. Patrick Hart, Department of Botany and Plant Pathology, Michigan State University, East Lansing, MI 48824. Closing date for applying is 1 November 1990.

#### **POSITIONS OPEN**

### ASSISTANT OR ASSOCIATE PROFESSORS BIOCHEMISTRY/MOLECULAR BIOLOGY

The Department of Biochemistry at the University of Mississippi Medical Center invites applications for two tenure-track positions. The department has strong research programs in eukaryotic gene organization and expression, protein synthesis, ribosome biogenesis, neurobiochemistry, nucleic acid biophysics, enzymology, and protein chemistry. Successful applicants are expected to establish or have independent, high-quality, funded research programs and to participate in the training of medical, dental, and graduate students. Special consideration will be given to candidates in areas that complement current research programs. Send curriculum vitae, an outline of future research plans, and the names of three references by 30 October 1990 to: Dr. Mark Olson, Chair, Department of Biochemistry, The University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216—4505. Equal Opportunity Employer, M/F/H/V.

#### VISITING ASSISTANT PROFESSOR

Position involves teaching undergraduate courses and active participation in ongoing research projects on the regulation of gene expression. The candidate will be responsible for establishing independent research projects funded by extramural sources. Applicants must have a Ph.D. in biochemistry or related biological fields. Experience in teaching, research, and administration required. Send curriculum vitae and names of three references by 15 October 1990 to: Dr. Leah Williams, Department of Biology, 200 Brooks Hall, West Virginia University, Morgantown, WV 26506.

West Virginia University is an Affirmative Action/Equal Opportunity Employer.

CROP PRODUCTION PHYSIOLOGIST. Tenure-track ASSISTANT, ASSOCIATE, OR FULL PROFESSOR; 80% research, 20% teaching. Development of independent basic research program in the physiological processes that relate to crop production. Training and experience with modern physiological and biochemical techniques and approaches is essential as well as proficiency in field applications. Develop undergraduate/graduate course dealing with contemporary research approaches in crop physiology. Send résuné, transcripts, brief statement of future applied research, copies of selected publications, and three letters of reference by 1 January 1991 to: Dr. Brian Larkins, Department of Plant Sciences, University of Arizona, Tucson, AZ 85721. Equal Opportunity/Affirmative Action Employer.

#### BIOLOGICAL OCEANOGRAPHY SCRIPPS INSTITUTION OF OCEANOGRAPHY

Applications are invited for ASSISTANT, ASSOCI-ATE or FULL PROFESSORIAL positions (tenure track/tenured); rank, level and salary commensurate with qualifications and experience, based on University of California pay scale. We are especially interested in interdisciplinary oceanographer-biologists who have had training and experience as oceanographers; those who can teach a kind of oceanography that emphasizes the measurement of the processes and events in the ocean itself as a means to understanding oceanic biology. Preference will be given to candidates whose research emphasizes aspects of the interaction between population biology, sea water chemistry, and the physics of water motion. Research topics which emphasize multiple scale interactions and can be generalized to gyre or global scale issues are sought. Candidates will be expected to conduct an active research program supported by extramural funds and to be involved in graduate teaching and the supervision of graduate students. Applicants must hold a Ph.D. degree, or be advanced to candidacy, in an appropriate field, and have demonstrated excellence and independence in research. Assistant level candidates will be expected to show evidence of their potential through a publication record appropriate for their experience and letters of recommendation; associate or full professoriallevel candidates must show evidence of a strong research record. Send letter of application including description of research interests, list of publications, resume of teaching experience, and names/addresses of five references to: Chair, Biological Oceanography Search, SIO Graduate Department 0208, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093–0208. Closing date for applications is 15 November 1990. An Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

#### HARVARD MEDICAL SCHOOL CENTER FOR BLOOD RESEARCH

Applications are invited for ASSISTANT/ASSOCIATE PROFESSOR appointments in 1991 and 1992. We are seeking candidates with strong potential for innovative research broadly relevant to the cell and molecular biology of blood cells, the immune system, and associated diseases. Topics of special interest include cell-cell interactions, receptors and signaling pathways, cell activation, migration, and localization, the cytoskeleton, hematopoiesis, inflammation, molecular genetics, and virology.

and virology.

Successful candidates will receive a faculty appointment in an appropriate Department of Harvard Medical School and will be expected to establish an outstanding research program. The position offers significant scholarly and scientific resources and the opportunity to teach medical and graduate students. The center will soon occupy space in a new building on the medical school campus. Applicants should submit curriculum vitae, reprints of publications, a brief statement of present and future research plans (no more than 500 words), and the names of three references to:

Professor Timothy Springer, Vice President Center for Blood Research, Box 367 800 Huntington Avenue Boston, MA 02115

#### DEVELOPMENTAL NEUROBIOLOGIST UNIVERSITY OF PENNSYLVANIA

The David Mahoney Institute of Neurological Sciences (INS) of the University of Pennsylvania is recruiting a Developmental Neurobiologist at the rank of ASSISTANT or ASSOCIATE PROFESSOR. We are interested in people working on aspects of nervous system development at the molecular or cellular levels in invertebrate or vertebrate systems. The INS has over 110 members and has several excellent laboratories working on molecular, cellular, and biochemical aspects of neural development and regeneration. Applicants should send their curriculum vitae, a brief description of their research interests, and names and addresses of three references to: Robert L. Barchi, M.D., Ph.D., Developmental Search Committee, David Mahoney Institute of Neurological Sciences, 452 Medical Education Building, University of Pennsylvania, Philadelphia, PA 19104–6074. Equal Opportunity/Affirmative Action Employer.

#### CHAIRPERSON DEPARTMENT OF BIOLOGY

The University of Miami is searching for a highly qualified individual for chairperson of the department. Candidates should have an active research program, demonstrated administrative skills, and an ability to facilitate interaction among biologists with diverse interests. The department includes 21 faculty and has an established graduate program leading to the Ph.D. Several biology-related units of the university afford opportunities for collaboration. Candidates should submit curriculum vitae and the names of four references to: Search Committee, Department of Biology, University of Miami, P.O. Box 249118, Coral Gables, FL 33124. Deadline for application is 1 November 1990 or until the position is filled. An Equal Opportunity/Affirmative Action Employer.

CHEMIST, SYNTHETIC ORGANIC. Responsible for design and synthesis of haptens and hapten protein conjugates; synthesis of dyes, enzyme substrates, enzyme inhibitors, and protein and enzyme characterization. Candidates must have Ph.D. in organic chemistry with at least 2 years of postdoctoral experience. Must have extensive knowledge of synthetic organic chemistry and mechanisms of enzyme inhibitor and receptor ligand interactions. Must be familiar with HPLC, GLC, NMR, UV, and IR instrumentation. Must have experience in planning and execution of multi-step synthesis. Salary: \$44,512 per year. Job site: Palo Alto, California. Send this ad and your résumé to: Job Order #WS18172, P.O. Box 9560, Sacramento, CA 95823–0560, no later than 6 October 1990.

PERSONNEL PLACEMENT ADS in our line classified columns can be boxed for higher visibility. Call SCIENCE at 202-326-6555 for details.

## CHIEF POSITRON EMISSION TOMOGRAPHY

## Intramural Research Program National Institute of Mental Health

The NIMH is accepting applications for a senior neuroscientist with experience and interest in applying PET technology to the problem of brain function and structure and specifically to the localization of brain function in relation to behavior, cognition and mental disorders.

Applicants must hold a doctoral degree (M.D. or Ph.D.) or equivalent in one of the clinical or basic neuroscience disciplines, e.g., neuropsychiatry, psychiatry, neurology, neuropsychology, neurophysiology, developmental neurobiology, etc.

The NIMH PET laboratory is located in NIMH Intramural facilities at the Clinical Center of the National Institutes of Health (NIH) in Bethesda, Maryland, and the research is carried out with the technical support of the NIH Nuclear Medicine Department. dedicated head scanners are shared among the three main user Institutes and substantial scanning time and resources are available. (Nuclear Medicine operates the cyclotrons, PET scanners, and supplies radiochemistry services for imaging research to all user Institutes.) Opportunities for collaboration in human studies abound, and facilities for basic animal research are also available.

Duties will include scientific leadership, administration and coordination of the NIMH PET program as well as the conduct of internationally-recognized research. Salary will be commensurate with that of other NIMH investigators with equivalent qualifications and responsibilities, ranging from \$50,342 to \$78,200 plus full Federal benefits and, for M.D.'s only, relevant bonuses or special pay. U.S. citizenship required.

Send C.V., bibliography, a statement of future research directions, and the names of three references to:

Steven M. Paul, M.D.
Director
Intramural Research Program
National Institute of
Mental Health
Building 10, Room 4N-224
9000 Rockville Pike
Bethesda, MD 20892

The NIMH is an Equal Opportunity Employer.



## DIRECTOR THE DERALD RUTTENBERG CANCER CENTER THE MOUNT SINAI MEDICAL CENTER



Applications are invited for the position of Director of the recently established Derald Ruttenberg Cancer Center at The Mount Sinai Medical Center. This position carries the status equivalent to a department chairman. Mount Sinai, with a tradition of excellence in clinical practice, teaching, and medical research is reorganizing its cancer research activities into an institution-wide Cancer Center.

We seek a leader trained as a physician, but whose professional prominence has been achieved as a scientist. Applicants should have a very active research program of major dimensions and an established international reputation for scholarly research. The Director will be expected to pursue his/her research interests and shape cancer research programs as a whole through new faculty recruitment, the establishment of core research facilities, and by institution-wide educational programs. The candidate must have the vision and leadership skills necessary to enhance the quality of, and interaction between, basic science and clinical programs and integrate Cancer Center programs with those of the other Departments. The Mount Sinai Medical Center is committed to an expansion of its clinical and basic science cancer programs and intends to devote extensive resources to this endeavor.

Applications or nominations should be addressed to: Dr. Robert A. Lazzarini, Chairman, Ruttenberg Cancer Center Search Committee, Brookdale Center for Molecular Biology, Box 1128A, Mount Sinai School of Medicine, New York, NY 10029-6547.

Mount Sinai is an Equal Opportunity/Affirmative Action Employer.

# RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

The BOC Group, an innovative world leader in health care products, has a challenging career opportunity at our state-of-the-art Technical Center located in Murray Hill, New Jersey.

The successful candidate will join a group working with growth factors and peptide hormones. This position requires a BS/MS degree and two plus years of academic or industrial experience in cell and molecular biology. Experience in cell culture techniques and basic recombinant DNA methodologies is essential.

BOC offers a challenging and stimulating scientific research career environment with the opportunity to interact with scientists from many disciplines. We provide an excellent compensation and benefits package. For prompt, confidential consideration, please forward your resume with salary requirements to: The BOC Group Technical Center, Human Resources Box E. M., 100 Mountain Avenue, Murray Hill, NJ 07974. We are an equal opportunity employer M/F/H/V.

THE BOC GROUP
Technical Center

## PROFESSOR OF GEOSCIENCES PURDUE UNIVERSITY

The School of Science at Purdue University has established a dedicated research facility for accelerator mass spectrometry (AMS) with the capability to analyze the following cosmogenic radionuclides: <sup>10</sup>Be, <sup>14</sup>C, <sup>26</sup>Al, <sup>36</sup>Cl, <sup>41</sup>Ca, and <sup>129</sup>I. Funding is in place to support the operation of this facility and to initiate research programs.

Purdue University's Department of Earth and Atmospheric Sciences seeks a distinguished faculty member at the associate or full professor level with a particular interest in research using cosmogenic radioisotopes to study terrestrial processes and events. In addition, we encourage applications for visiting professorships of 1- to 2-year duration. A successful applicant will have a Ph.D. in the geosciences and an established record of excellence in basic scientific investigation of geoscience problems.

Please send vita to:

Professor Steven J. Fritz Department of Earth and Atmospheric Sciences Purdue University West Lafayette, Indiana 47907 USA

Screening will continue until the position is filled.



Purdue University is an affirmative action/equal opportunity employer.

### **MOLECULAR GENETICIST**

The Department of Molecular Genetics of The Ohio State University is initiating a search to fill three tenure track positions. It is anticipated that one of these positions will be shared with the Ohio State Biotechnology Center. These positions may be filled at the Assistant Professor level or at more advanced levels. We are particularly interested in applicants with research interests in molecular genetic studies of major topics in molecular, cell, developmental biology, or neurobiology using experimental systems such as yeast, Drosophila, Caenorhabditis, Mus, and humans. However, highly qualified applicants with other research specialties within the broader mandate of our unit will also be considered seriously. A highly competitive recruiting package is available, including an attractive (hard money) salary, generous laboratory space, substantial funds for equipment purchase and funds for initial operating expenses, independent of extramural grant support. The Department and The Ohio State University are in the process of a major expansion in Molecular Biology and Biotechnology, and a substantial number of additional positions are anticipated in the future. Women and members of minority groups are enthusiastically encouraged to apply.

The Ohio State University is the flagship institution of the state's higher education system. It is located in the state capital, Columbus, which is a growing, yet highly affordable, metropolitan area of about 1.3 million people. Columbus has been ranked by *Newsweek* as one of the country's best places to live and work.

Applications should include a detailed curriculum vitae, a description of research experience, a statement of the nature of the planned independent research program, and the name, address and telephone number of each of four scientists who have agreed to serve as references. Applications will be accepted until suitable candidates are hired but recruiting is scheduled to begin in earnest by November 1990. Information about our Department can be obtained by calling our offices at 614-292-8084.

THE OHIO STATE UNIVERSITY Application materials should be sent to: Dr. Alan M. Lambowitz, Molecular Genetics Search, Department of Molecular Genetics, The Ohio State University, 484 W. 12th Avenue, Columbus, Ohio 43210.

The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

## CORNELL DIRECTOR UNIVERSITY BiotechnologyProgram

Cornell University invites applications for the position of Director of the Biotechnology Program. The Program, established in 1983, is funded by industry, state, federal and Cornell sources. The directorship is a half-time administrative appointment. Additionally, the Director must be qualified to be appointed to a tenure-track position in a department consistent with his/her expertise. The Director should be internationally recognized in an area related to biotechnology. Experience in agricultural science is desirable, and demonstrated administrative, management and leadership skills are essential. Continuation of an active research and teaching program is expected.

The Director is the major spokesperson for biotechnology at Cornell, with liaisons to faculty, external agencies, alumni and the public, overseeing a program with a current annual operating budget of \$4.5 million. In collaboration with the Program's Scientific Administrative Board, the Director determines program goals and focus, funds research grants on specific projects, is responsible for raising and maintaining funds for the Program and interacts closely with its current sponsors.

A competitive salary with fringe benefits is offered. Applications, nominations and requests for further information will be held confidential and should be directed to: Dr. Norman R. Scott, Vice President for Research and Advanced Studies, Cornell University, 314 Day Hall, Ithaca, NY 14853. Telephone (607) 255–7200. Applications will be evaluated starting November 1, 1990. The position will be available July 1, 1991.



Cornell University is an equal opportunity/affirmative action employer.

**GENSIA PHARMACEUTICALS, INC.** is designing and developing drugs for treatment and diagnosis of cardiovascular and CNS diseases. Continued growth has created openings in Research and Development.

<u>RESEARCH</u> - Candidates should have a BS/MS/PhD in pharmacology, biochemistry, chemistry, or related field with skills or training in

- enzyme purifications and drug screening
- cell biology and platelet function
- isolated organ and tissue pharmacology
- in vivo pharmacology models
- medicinal chemistry

<u>DEVELOPMENT</u> - Candidates should have a BS/MS in the life sciences and experience in

designing, implementing, monitoring and reporting of clinical trials

Gensia offers competitive salary and benefits including incentive stock options. For consideration, please send a resume with cover letter to Human Resources Dept., Gensia Pharmaceuticals, Inc., 11025 Roselle St., San Diego, CA 92121-1204.



#### **Director Center for Drug Targeting** and Analysis

Northeastern University is establishing a new center for Drug Targeting and Analysis within the College of Pharmacy and Allied Health Professions. The University is located in the center of the Boston medical and biotechnology research community and will establish strong collaborative ties with clinicians and researchers in the area. Applications and nominations are invited for a full time director of the Center. This position also carries a senior faculty appointment in the College of Pharmacy and Allied health Professions. The successful applicant shall have a Ph.D. in pharmaceutics or in a related discipline. An excellent record of scientific productivity and grantsmanship is essential. Experience in the pharmaceutical industry is desirable. The director will be expected to develop a strong research program with external support. He/she will have responsibility for the scientific and fiscal development of the center.

Applicants should submit a curriculum vitae and the names of three references by November 30, 1990 to:

> Mehdi Boroujerdi, Ph.D. **Associate Dean and Director** of Graduate School College of Pharmacy and **Allied Health Profession** Northeastern University Boston, MA 02115

Northeastern University is an equal opportunity/ affirmative action employer.

## DERMATOLOGY

Postdoctoral Research Associates Molecular Biologists/Biochemists



offmann-La Roche, an established leader in the pharmaceutical industry, has two excellent opportunities in our Dermatologics Division, which has on-going programs related to acne, psoriasis, skin photoaging and hair growth.

#### **PHOTODAMAGE**

You will have the opportunity to apply methods of recombinant DNA technology to problems involving the action of retinoids on the repair of photodamaged skin. Qualifications include a Ph.D. in Biochemistry, Cell Biology or Pharmacology. Demonstrated expertise in molecular biological techniques along with a working knowledge of the biochemistry and physiology of skin desirable.

#### HAIR GROWTH

You will participate in studies on the regulation of keratinocyte growth and differentiation with the aim of understanding the regulation of hair growth at the biochemical level. Qualifications include a Ph.D. in Biochemistry/Cell Biology. Experience in the areas of signal transduction and the regulation of cellular proliferation would be desirable, but not essential

Roche offers a research environment encouraging scientific growth. Interested indiviguals should send a curriculum vitae indicating past, current and future research interests, to: Mrs. Jane Jusinski, Roche Dermatologics, Hoffmann-La Roche Inc., Nutley, New Jersey 07110. We are an equal opportunity employer.



### ROCHE Hoffmann-La Roche

Working Today For A Healthier Tomorrow

#### **FACULTY POSITION**

#### **DEPARTMENT OF PHYSICAL THERAPY** FACULTY OF REHABILITATION MEDICINE UNIVERSITY OF ALBERTA

Applications are invited for two full-time tenure track appointments, one of which is in the area of geriatrics, in the Department of Physical Therapy, University of Alberta, for July 1991. The University of Alberta offers BSc and MSc degrees in Physical Therapy. Qualified candidates should possess a doctoral degree. A physical therapy background would be an asset. Salary will be commensurate with qualifications and experience (Assistant Professor: \$36,910 -\$53,374; Associate Professor: \$45,694 - \$67,658).

Responsibilities include undergraduate and graduate teaching, research and scholarly work, and administrative duties.

Qualified applicants should send a curriculum vitae, state their teaching and research interests, together with the names of three referees to:

**Prof. Sharon Brintnell** Acting Dean **Faculty of Rehabilitation Medicine** 3073 UAH Education & Development Centre University of Alberta Edmonton, Alberta T6G 2B7

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

The University of Alberta is committed to the principle of equity in employment. The University encourages applications from aboriginal persons, disabled persons, members of visible minorities and

The deadline for receipt of applications is January 31, 1991

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With \$869 million in sales success last year from our widelyacclaimed product, NutraSweet and the introduction of our newest breakthrough all-natural fat substitute, Simplesse, things keep getting better. The opportunity of a lifetime is now available for top-notch professionals who are looking to make a difference by making a good life even better.

### **RESEARCH SCIENTIST - Fermentation Group**

As a member of the fermentation research group, you will be responsible for independently conceiving and implementing scientific projects for the development of new microbiological and/or bioconversion processes. Areas of research will focus primarily on the metabolism/physiology of microorganisms and the development of processes to THINGS produce novel fermentation products with food applications. Strong emphasis will be given to dairy starter cultures and related microorganisms.

> A Ph.D. in Microbiology, Microbial Physiology or Food Science as well as technical competence in the areas of microbiology, microbial physiology and systematic bacteriology are required. 1-3 years of industrial or academic experience in food microbiology/microbial physiology would be a definite asset. An understanding of the regulatory aspects of food ingredients is preferred.

As a global leader committed to the development of improved consumer food choices through the application of advanced technologies, The NutraSweet Company offers an excellent compensation and benefits package plus the career, challenges, recognition and opportunities you deserve in life. For immediate consideration, please forward your resume to: Wayne Tompkins, The NutraSweet Company, 601 East Kensington Road, Mt. Prospect, IL 60056, eoe m/f/h

The NutraSweet Company



### SMIT PROFESSOR OF CELL BIOLOGY CALIFORNIA INSTITUTE OF TECHNOLOGY

The Biology Division at the California Institute of Technology seeks to fill the new Howard Smit Chair in Cell Biology. Cell biology is defined broadly, and encompasses investigators taking biochemical, biophysical, genetic, immunological, morphological, and structural approaches. Persons interested in this senior appointment should submit curriculum vitae to: Cell Biology Search Committee, c/o Paul H. Patterson, Biology Division, 216-76, Caltech, Pasadena, CA 91125. Applications from women and minority candidates are especially encouraged.

Harvard University: The Department of Linguistics invites inquiries from persons qualified for appointment to a FULL PROFESSORSHIP. The candidate should be a theoretical linguist with a specialty in either phonology or syntax. Preference will be given to candidates with an interest in teaching in other related departments. The possibility of joint appointments exists for suitable candidates. A curriculum vitae and the names of potential referees should be sent by 30 November 1990 to: Brendan Maher, University Hall 17, Harvard University, Cambridge, MA 02138. Applications from women and minorities are especially welcome. Harvard University is an Affirmative Action/Equal Opportunity Employer.

## CURATORSHIP MOLECULAR SYSTEMATICS AMERICAN MUSEUM OF NATURAL HISTORY

The American Museum of Natural History invites applicants for a tenure-track curatorial position in molecular systematics. The museum possesses suitable laboratory facilities for DNA sequencing and electrophoresis. Applicants may be in any area of molecular systematics.

Applicants may be in any area of molecular systematics. Research in molecular systematics will complement the museum's existing research program which seeks both to analyze phylogenetic relationships among fossil and recent taxa, and to elucidate aspects of the evolutionary process. Successful candidate will participate as well in all curatorial functions, including collections management, exhibition, and museum's administration. Position is available beginning 1 July 1991. A Ph.D. or equivalent is required. Rank and salary shall be determined based upon qualifications and experience.

Applicants should forward (i) a statement of research interests and goals, (ii) curriculum vitae, (iii) complete bibliography, and (iv) names, addresses, and telephone numbers of at least three references familiar with the applicant's qualifications and accomplishments. Applications must be submitted by 15 October 1990 to:

Mr. Lee Vilensky
Personnel Department (S)
American Museum of Natural History
Central Park West at 79th Street
New York, NY 10024

An Equal Opportunity Employer.

The Delaware Museum of Natural History invites applications for an ASSISTANT CURATOR IN MALACOLOGY. Responsibilities include departmental administration, conduction of collection-oriented research on molluscan systematics, participation in collection management, and the museum's public programs. Applicants must have a doctorate or equivalent experience. Curatorial experience desired. Position available immediately. Send résumé, names of three references, brief statement of research goals, and reprints by 31 October 1990 to: Chair, Search Committee, Delaware Museum of Natural History, P.O. Box 3937, Wilmington, DE 19807.

#### **ENVIRONMENTAL SPECIALISTS**

Limnologists, wetland and estuarine ecologists, environmental scientists. The St. Johns River Water Management District has current and projected openings in applied research and research management for surface water restoration and preservation programs. Starting salaries are commensurate with experience. Master's or Ph.D. preferred in limnology, ecology, biology, or related environmental science. Send résumé identifying source of advertisement by 5 October 1990 to: St. Johns River Water Management District, Office of Employee Relations, P.O. Box 1429, Palatka, FL 32178–1429.

An Equal Opportunity/Affirmative Action Employer, veterans preference.

#### **POSITIONS OPEN**

LABORATORY DIRECTOR
ENVIRONMENTAL MONITORING
SYSTEMS LABORATORY
OFFICE OF MODELING,
MONITORING SYSTEMS,
AND QUALITY ASSURANCE
LAS VEGAS, NEVADA

ES 401/801/1301 \$71,200 to \$77,600

The U.S. Environmental Protection Agency (EPA) is seeking highly qualified candidates for the position of laboratory director, Environmental Monitoring Systems Laboratory, Las Vegas, Nevada (EMSL-LV), Office of Modeling, Monitoring Systems, and Quality Assurance (OMMSQA). The EMSL-LV, a component of the Office of Research and Development, is responsible for research and development supporting a major segment of the agency's programs relating to human and ecosystem exposure to environmental pollutants. The laboratory conducts research and development in the areas of: analytical chemistry, immunochemistry, field monitoring methods and design, ecological status and trends, terrestrial ecology, integrated human exposure assessment, human biomarkers of exposure, remote sensing, geohydrology, and environmental radiation assessment.

ronmental radiation assessment.

Applicants for this Senior Executive Service (SES) position must have a bachelor's or higher degree in life sciences, physical sciences, or engineering, or a field relating to the work of the laboratory, and professional experience demonstrating leadership and technical competence in one of those fields. Applicants must also meet the technical and executive qualifications described in the Vacancy Announcement. For a copy of the Vacancy Announcement, call or write:

Chaunta Gladney
Environmental Protection Agency
Executive Resources and
Special Programs Division
Room M3910 (Mail Code: PM-224)
401 M Street, S.W. (Waterside Mall)
Washington, DC 20460
Telephone: 202-382-3328

Applications must be postmarked by 6 November 1990. EPA is an Equal Opportunity Employer.

ASSOCIATE DEAN AND PROFESSOR OF BIOLOGICAL SCIENCES. To chair the recently formed Division of Biological Sciences. The division integrates the areas of biochemistry, botany, microbiology, and zoology and offers B.S., M.S., and Ph.D. degrees in these fields. The 40 faculty have an ongoing commitment to excellence in undergraduate and graduate teaching, research, and service. Nominations are solicited. Applicants must have a doctoral degree in a biological science, successful research, administrative and teaching experience, as well as the vision and leadership ability to develop and strengthen the division. Send curriculum vitae, statement of career goals, and names, addresses, and telephone numbers of five references to: Associate Dean Search Committee, Division of Biological Sciences, University of Montana, Missoula, MT 59812. Review begins 30 November 1990 and continues until the position is filled. The University of Montana is located in Missoula, a cosmopolitan Rocky Mountain community of 80,000. The city has often been singled out in national publications for its high quality of life. Abundant recreational opportunities in surrounding state and national forests and nearby Glacier National Park complement a thriving intellectual atmosphere. An Affirmative Action/Equal Opportunity Employer.

## Science

can publish YOUR LOGO with your onecolumn line classified ad. No extra fee is assessed: you will be billed at our regular line rate for the number of lines the logo occupies. For details, call Classified Advertising: 202-326-6555.

#### **POSITIONS OPEN**

#### BIOENGINEER

**DIRECTOR**, Orthopaedic Biomechanics Laboratory, University of Maryland. Ph.D. engineer experienced in biomechanics to develop on-site lab and work closely with active clinical research program in spine and extremity reconstructive surgery.

Competitive salary and equipment funds with academic appointments in both medical school and college of engineering. Please telephone: 301-328-8705 or write: Charles C. Edwards, M.D., Professor of Orthopaedic Surgery, University of Maryland Hospital, NGW52, Baltimore, MD 21201.

Equal Opportunity Employer, M/F/H/V.
Minorities and females are encouraged to apply.

#### DEPUTY DIRECTOR, OFFICE OF BIOLOGICAL PRODUCT REVIEW \$71,200 to \$79,200

In addition, physicians may be eligible for a retention bonus of up to \$20,000 per annum. Incumbent shares responsibility with the director for directing over 100 professional and support staff in the evaluation and regulation of biological products presented for investigational use or for market release. Applicants should have an M.D. degree from an approved medical school or a doctorate in a related biological or physical science; experience at the executive level in planning, directing, and evaluating broad scientific research or regulatory programs and activities which demonstrate the ability to effectively coordinate and productively integrate the multidisciplinary efforts of a scientific, professional, and technological workforce; administrative or managerial experience at the executive level which demonstrates strong leadership abilities in a scientific environment; and experience which indicates the ability to implement Equal Employment Opportunity programs. Application for Federal Employment, SF-171, is required and must be received by 18 October 1990. For additional information, contact: Mr. John Anderson, Division of Human Resources Management, Food and Drug Administration, Room 4B-09, HFA-408, Parklawn Building, 5600 Fishers Lane, Rockville, MD 20857. Telephone: 301-443-1755.

An Equal Opportunity Employer.

#### FACULTY POSITIONS IN CHEMISTRY

The Chemistry Department at the University of California, Berkeley, solicits applications for positions as ASSISTANT PROFESSOR of chemistry, beginning in the fall of 1991. Creative and energetic candidates in any area of chemistry who show exceptional promise for research and teaching are sought. Individuals selected for these positions will be expected to establish an outstanding research program. Exceptional candidates with established programs may be considered for appointment with tenure as professor or associate professor. Candidates should send curriculum vitae, a proposed research program, and arrange to have three letters of recommendation sent to: Chairman, Faculty Recruiting Committee, Department of Chemistry, University of California, Berkeley, CA 94720. The deadline for receipt of applications is 1 December 1990. The University of California is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMISTRY FACULTY POSITION. Chemistry Department, Pomona College. Tenure-track position at the ASSISTANT PROFESSOR level starting July 1991 to teach introductory and advanced courses in biochemistry and to work closely with members of the Biology Department in the administration of a joint program in biochemistry and molecular biology. The successful candidates must have a Ph.D. and a commitment to undergraduate teaching and research. There are excellent library, computing, and laboratory facilities including a H-P GC/MS system and a 300-MHz NMR spectrometer and ample space for research. Startup funds for faculty research are available. Pomona College, the founding member of The Claremont College, is among the nation's most selective undergraduate institutions. To apply, submit a letter of interest, a résumé, transcripts, a description of research interests, and three letters of reference by 29 October 1990 to: Professor Wayne E. Steinmentz, Chemistry Department, Pomona College, Claremont, CA 91711–6338. Pomona College is an Affirmative Action/Equal Opporuntly Employer and especially invites applications from women and minorities.

#### CHAIR, DEPARTMENT OF MICROBIOLOGY

Applications are invited for the position of Professor and Head of the Department of Microbiology at the University of Saskatchewan. The Head is expected to pursue and build an active research program in microbial pathogenesis, microbial genetics, virology or immunology. The Department Head has combined responsibility for the basic science department within the College of Medicine and for the Clinical Microbiology department in the Royal University Hospital. The department's service responsibilities in the Royal University Hospital include bacteriology, serology, mycology, parasitology, mycobacteriology, and clinical immunology and HLA tissue typing. The department has teaching responsibilities in the health sciences (Medicine, Dentistry, Occupational Therapy, Nursing, Pharmacy) and College of Arts and Sciences. The department offers a postgraduate degree program at the M.Sc. and Ph.D. levels in the basic science and at the Ph.D. level in Clinical Microbiology. The thirteen member faculty of the Department of Microbiology in the College of Medicine includes basic science microbiologists, virologists, immunologists, and medical microbiologists. Clinical infectious disease physicians in the University Hospital are cross-appointed to the department.

Potential applicants should send a curriculum vitae, a brief statement of current research interests and addresses of three referees to:

I.M. McDonald, M.D., Dean of Medicine, University of Saskatchewan, B103 Health Sciences Building, Saskatoon, Saskatchewan, S7N OWO.

The closing date for applications is December 31, 1990. In accordance with Canadian Immigration Regulations, preference will be given to Canadians and landed immigrants.

## **Scientist**

At Genentech, our success in the biotechnology industry is a result of superb personnel combined with state-of-the-art equipment in an environment where talent and innovation are allowed to flourish. Currently, we are seeking a Scientist to supervise our Virus Testing and Research Lab in order to ensure the scientific quality of studies performed.

Duties include the timely initiation and completion of cell characterization safety studies, virus removal validation studies, completion of reports for inclusion in regulatory submissions and the resolution of cell substrate safety issue.

The successful candidate will have a Ph.D. in the Biological Sciences and a minimum of 5 years' experience, including a post doc, in retrovirus research and cell biology. Experience

in HIV research, molecular virology, knowledge of GLP regulations and supervisory skills are desirable.

Our commitment to the best is clearly reflected in our extensive benefits package which includes child care facilities, free health club membership, an employee stock purchase plan and fully paid medical/dental/vision coverage. For immediate consideration, please send your resume to Nancy Symonds, Genentech, Inc., Human Resources Dept. MD, 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.

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## FACULTY POSITION DEVELOPMENTAL BIOLOGY

The Department of Molecular Genetics and Cell Biology invites applications for new faculty positions in the field of developmental biology at the assistant professor level, although exceptional candidates at any level will be considered. We are especially interested in candidates using developmental genetic approaches to understanding pattern formation and intercellular regulation, but the quality of the research program and its relationship to existing strengths will be the most important considerations. Complete applications with three letters of recommendation. should be sent by November 1, 1990 to:

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

## THE UNIVERSITY OF CHICAGO

920 E. 58th St. Chicago, IL 60637

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

# Technical Specialist Biotechnology

Perkin-Elmer has an outstanding career opportunity available in our Biotechnology joint venture/PE Cetus.

Applicants must have at least a B.S. or M.S. degree in molecular biology or biochemistry and 3-5 years of recent industrial lab experience utilizing techniques for DNA isolation, manipulation, separation, amplification and optical detection. Up to 20% travel may be required.

The successful candidate will directly contribute to the process of developing a variety of technical documents, product support literature, published articles, telemarketing and responding to customer requests for technical product information. Will have primary responsibility for information management projects such as direct telephone applications support of molecular biologists performing PCR-related techniques and the diagnosis/solution of problems related to the optimal use of instrument systems and reagent products in the customer's lab. Prior experience in presenting technical seminars and techniques workshops to customers and sales professionals is required.

Perkin-Elmer rewards qualified professionals with outstanding growth opportunities, competitive salaries and a comprehensive benefits plan. All inquiries should be directed to: Mr. J.T. Kulas, Manager, Human Resources, The Perkin-Elmer Corporation, 761 Main Avenue, Norwalk, CT 06859-0570.

An equal opportunity employer



## UNIVERSITY OF WISCONSIN-PARKSIDE ASSISTANT PROFESSOR: MOLECULAR BIOLOGIST

The University of Wisconsin-Parkside Biological Sciences Department, a Center of Excellence designated by the UW System Board of Regents, plans to add one tenure-track faculty position for September 1991. An earlier starting date is possible. This position offers opportunities for individuals seeking a balance of research and teaching.

Molecular Biologist: with proven competence in applying the techniques of molecular biology and biotechnology or immunology. The research program can be in any eukaryotic system, preferably on regulation and/or architecture of a genome. Applicants must have a Ph.D. in one of the following fields; molecular biology, immunology, genetics, developmental biology. Candidates with post-doctoral experience are preferred. The successful candidate should participate in the undergraduate and graduate programs. Teaching assignments will include upper level course(s) in the area of specialty, and an introductory course for majors or non-majors.

The University of Wisconsin-Parkside, located in the Chicago-Milwaukee urban corridor, is a predominantly undergraduate institution. The 12-person biology department offers an excellent undergraduate program with options/ concentration in General Biology, Pre-Health Sciences and Molecular Biology and a MS program in Applied Molecular Biology with emphasis on Biotechnology. Current research programs include molecular studies on plant hormones, plant derived insecticides, tabtoxin production and resistance, zinc finger proteins in plants, and blood clotting factors; effects of electromagnetic fields on gene expression or wound repair; neuronal tissue regeneration; axenic growth of Hydra; circadian rhythms and pineal gland effects; lymphokines and tryptophan catabolism; cytochemistry of Acanthocephala; and enhancement of science instruction. Collaborations are encouraged.

Applications, including a letter of interest, curriculum vitae, a list of graduate and undergraduate coursework, a brief summary of research goals, representative publications and 3 letters of reference should be sent to the address given below. Review of applications will begin on November 5, 1990 and continue until the positions are filled. The Search Committee is interested in hearing from qualified women and members of minority groups. DR. S.P. DATTA, Chairperson, Biological Sciences Department, University of Wisconsin-Parkside, P.O. Box 2000, Kenosha, WI 53141, Telephone: 414-553-2469/553-2327. The University of Wisconsin-Parkside is an Equal Opportunity/Affirmative Action Employer.

# AUSTRALIAN NATIONAL UNIVERSITY — AUSTRALIA RESEARCH FELLOW/POSTDOCTORAL FELLOW IN ECOSYSTEM DYNAMICS (one position), RESEARCH SCHOOL OF BIOLOGICAL SCIENCES.

The Ecosystem Dynamics Group consists of about eight academic staff who work collaboratively to investigate the processes of establishment, development and rehabilitation of particular ecosystems and to develop predictive models of changes in terrestrial ecosystems. Interests within the Group include community theory, modelling ecosystem processes, the dynamics of plant populations, field eco-physiology and plant-animal interactions. The Australian biota is the major focus and many of the Group's field projects are in eucalypt forests and woodlands. The School is seeking to appoint a Research Fellow or Postdoctoral Fellow to work within the Group. Candidates with demonstrated research skills in any of the areas of interest to the Group are encouraged to apply. In particular, candidates interested in testing theory via experimental studies in the field are sought. (Note applicants for the Postdoctoral Fellowships advertised in the middle of this year will be automatically considered for this additional position.) For further information please contact Dr. Ian Noble or Dr. Marilyn Ball telephone (06) 249 4020, fax (06) 248 9995, Ecosystem Dynamics, RSBS, Box 475 GPO, Canberra 2601, Australia. Closing date: 5 October 1990. Ref: BS 30.8.1. SALARY: Research Fellow; A\$33,163-A\$43,096 p.a.; Postdoctoral Fellow Grade 1 (fixed point); A\$28,792-A\$32,762 p.a. APPOINTMENT: Research Fellow up to three years, possibility of extension to five years; Postdoctoral Fellow up to two years, possibility of extension to three years. APPLICATIONS should be submitted in duplicate to the Registrar, The Australian National University, GPO Box 4, Canberra ACT 2601, Australia, quoting reference number and including curriculum vitae, list of publications and names of at least three referees. The University reserves the right not to make an appointment or to appoint by invitation at any time. Further information is available from the Registrar.

THE UNIVERSITY IS AN EQUAL OPPORTUNITY EMPLOYER

## CELL BIOLOGY, MOLECULAR BIOLOGY, PROTEIN PURIFICATION Bone Development, Regeneration and Repair

Chiron Corporation, a leader in soft tissue growth factor and wound healing research is expanding its growth and differentiation factor program in the area of bone morphogenesis.

We seek a motivated and dedicated scientist at the Ph.D. level to investigate the role of various novel recombinant bone proteins in the morphogenesis and repair of bone. Particular emphasis will be placed on bone repair models. The role of bone morphogenetic proteins in diseases associated with abnormal bone resorption will also be targeted.

Applicants should have at least two years of post-doctoral experience in bone cell biology or related fields. Also, candidates with some background knowledge of the molecular biology of bone would be preferred. An ability to perform research independently must be demonstrated by a record of publication in peer reviewed journals.

Two other positions exist at the B.S. or B.A. level for Research Associates with an interest in bone proteins at the molecular level. The first involves the molecular cloning, expression and post-translational processing of novel bone-related proteins. The second position will involve the purification of recombinant bone proteins produced in heterologous microorganisms such as yeast, or in cultured mammalian cells. For these latter two postions, entry level applications are encouraged.

Chiron Corporation, located in the San Francisco Bay Area, offers a stimulating and challenging research environment, a competitive compensation package and opportunities for professional advancement. Candidates please send C.V. and 2 references to Chiron Corporation, Human Resources Dept. - MB148-49, 4560 Horton St., Emeryville, CA 94608.



## 

#### National Center for Food Safety and Technology



#### **Staff Fellow Positions**

Available Now — A unique opportunity for qualified scientists to play an important role in a pioneering U.S. food science research effort in food safety. FDA is seeking Staff Fellows to conduct research in food biotechnology and fermentation technology. Specific disciplines sought include:

- Genetic Engineering
- Biotechnology
- Food Microbiology
- Fermentation Technology
- Recombinant DNA
- Microbial Genetics
- Biosensors
- Protein Engineering
- · Related Fields

These positions are available at the National Center for Food Safety and Technology, located at the IIT Moffett Campus in Bedford Park, Illinois. Emphasis is on food safety research conducted in cooperation with scientists from academia, other government agencies, industry, and other segments of the science community. Teaching responsibilities in a Food Safety Science degree program at IIT may be part of the job. Candidates must have a master's degree, doctoral degree, or be certified by a university as meeting all requirements leading to such a degree in one of the listed disciplines or a closely related discipline. Staff Fellowships are excepted appointments in the Federal Service. Candidates must be United States citizens or resident aliens eligible for naturalization within four years. Initial appointments will be for up to two years. Salary range (\$29,891 to \$45,441) is based on qualifications and experience. A current curriculum vitae and bibliography should be sent to Dr. Steven Gendel, Biotechnology Section, Food Engineering Branch, DHHS/PHS/FDA, National Center for Food Safety and Technology, 6502 S. Archer Ave., Summit-Argo, IL 60501, not later than October 15, 1990.

Developmental Therapeutics Program
Division of Cancer Treatment
National Cancer Institute

#### CHIEF

#### Toxicology Branch, GM-14/15

The Developmental Therapeutics Program (DTP) of the Division of Cancer Treatment plays a major role in the national effort to discover and develop agents for the treatment of cancer and AIDS. The program operates much like a pharmaceutical company, with the major functional elements found in such a company. The Toxicology Branch within DTP develops, implements, and analyzes, through a collaborative research program, investigations on the toxicological and pharmacological properties of agents in in vivo and in vitro experimental systems. Protocol studies carried out under Good Laboratory Practice Regulations yield data which 1) establish an initial dose for clinical trials; 2) evaluate organ systems adversely affected; 3) assess the reversibility of the adverse effects; and 4) determine the schedule dependency of observed toxic effects. Information collected by the Toxicology Branch is filed with the Food and Drug Administration as the preclinical data base for Investigational New Drug Applications which are required prior to of clinical initiation Pharmacology studies are designed to determine the schedule dependency of organ toxicity and to provide information to guide dose escalation procedures and the initial design of clinical trials regimens. These efforts are performed under contract and are managed by the professional staff of the Branch. The Branch Chief directs this effort and coordinates the activities of the Branch with other preclinical and clinical components of the Division.

This position requires a Ph.D. (or equivalent) in toxicology, pharmacology, or chemistry. Preference will be given to candidates with extensive experience in drug development or discovery, especially as related to cancer or AIDS. Salary range is \$50.342 to \$76.982.

Candidates should send a copy of their Application for Federal Employment (SF-171), curriculum vitae and bibliography to:

National Institutes of Health National Cancer Institute Personnel Management Branch 9000 Rockville Pike Executive Plaza South, Room T-43 ATTN: JAC Bethesda, Maryland 20892

Applications must be received by October 31, 1990. For further technical information, interested parties may call Dr. Saul Schepartz (301) 496-8720

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

## RESEARCH SCIENTIST MICROBIAL GENETICS

Amgen has established itself as a leader in the discovery and development of human therapeutic products through applications of molecular biology and biotechnology. As a result of our on-going commitment to the development of gene cloning technology, we have an immediate opportunity for a Research Scientist to contribute to programs in strain improvement, vector development and enhancement of heterologous gene expression.

Qualified candidates for this position must have a Ph.D. in Molecular Biology or an equivalent discipline and a minimum of 2 years' post-doctoral experience in the genetics and molecular biology of *E coli*. Functional understanding of microbial physiology is desirable.

Amgen's commitment to excellence in research has created a stimulating and challenging environment conducive to innovation and creativity. As a company we highly value our human resources and offer an excellent compensation and benefits package including equity offerings. Our location is northwest of Los Angeles in an attractive community free of traffic congestion and other problems commonly associated with the Los Angeles area.

If you have the required background and would like to contribute your expertise to our research efforts, please send a complete CV, in strictest confidence, to:

AMGEN, INC. Recruitment, Dept. #553 Amgen Center Thousand Oaks CA 91320-1789

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AMGEN

### **Postdoctoral Research Fellowships**

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert Company has initiated a mulitdisciplinary postdoctoral research program which will provide exciting opportunities to conduct basic studies in areas of potential therapeutic utility. The following fellowships are currently available:

#### Molecular Virology (Fellowship Z)

The Fellow will be involved in investigating the regulation of HIV-encoded gene products. Publication of research findings will be strongly encouraged. Applicants should have an M.D. or Ph.D. with experience in recombinant DNA technology.

## Endothelin Biology/Cardiovascular Biochemistry (Fellowship G)

The Fellow will conduct research on the cellular biology of endothelin as it relates to cardiovascular pathophysiology. Projects are focused on the characterization of endothelin receptors and endothelin biosynthesis. Applicants should have a Ph.D. in Biochemistry, Cell Biology or Pharmacology with experience in receptor/enzyme isolation and characterization. Knowledge of signal transduction mechanisms and cell culture is desirable.

Appointments are for one year, renewable for a second year. Compensation includes \$32,000 annual salary with relocation assistance and an attractive benefits package. Our modern, growing research facilities are located adjacent to the University of Michigan in an outstanding living and working environment.

Send CV with three references to Jack Moyer, Human Resources, PARKE-DAVIS Pharmaceutical Research Division, Warner-Lambert Company, 2800 Plymouth Road, Ann Arbor, MI 48105. Please indicate the fellowship you are applying for. "Smoke-Free Work Environment"

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A DIVISION OF

WARNER LAMBERT

#### FACULTY POSITION INORGANIC CHEMISTRY UNIVERSITY OF MARYLAND COLLEGE PARK (UMCP)

Inorganic chemists with a Ph.D. degree and outstanding credentials in any subdiscipline, including bioinorganic chemistry and solid-state chemistry, are encouraged to apply. This tenure-track position will probably be filled at the ASSISTANT PROFESSOR level, although the department is able to consider more senior appointments. Applicants should submit a résumé and a short description of future research plans and should arrange for three letters of reference to be sent to: Professor George R. Helz, Inorganic Search Committee, Department of Chemistry and Biochemistry, University of Maryland, College Park, MD 20742. Telephone: 301-454-4850 or 301-405-1797. For full consideration, all materials should be received by 1 November 1990. UMCP is an Equal Opportunity/Affirmative Action Employer.

#### FACULTY POSITION IN PHARMACOLOGY

The Department of Pharmacology, University of Tennessee, Memphis, is seeking candidates for two tenure-track positions available I July 1991 and one tenure-track position available immediately at the rank of ASSIST-ANT OR ASSOCIATE PROFESSOR, dependent on experience. Candidates should possess the Ph.D. degree in pharmacology, biochemistry, or a related discipline, or the M.D. degree, and should have demonstrated excellence in research and a commitment to teaching. Applicants should have experience in application of modern constructs of biochemistry, molecular biology, or early biology to problems of interest to pharmacology, Areas of particular interest include research in transmembrane signaling, tumor biology, cardiovascular pharmacology, and neurochemistry. Candidates will be expected to establish their independent research programs, and participate in teaching of pharmacology to professional and graduate students. Applications from minority candidates and women are strongly encouraged. Please submit curriculum vitae, the names of three references, and a brief statement of future research plans to: Murray Heimberg, Ph.D., M.D., Chairman, Department of Pharmacology, University of Tennessee, Memphis, TN 38163. Search will continue until positions have been filled. The University of Tennessee, Memphis, is an Equal Employment Opportunity/Title IX/ Section 504/Affirmative Action Employer.

FACULTY POSITIONS MOLECULAR AND CELL BIOLOGY, PENNSYLVANIA STATE UNI-VERSITY. Applications are invited for faculty positions at any rank in the Department of Molecular and Cell Biology. We seek exceptional candidates whose research interests encompass any area of molecular and cell biology, but special consideration will be given to those whose research complements our areas of strength and future interest, to include (i) cellular and developmental regulation in prokaryotic and eukaryotic systems, including gene regulation, signal transduction, receptors and growth factors; and (ii) macromolecular structure/function relationships. Candidates with academic training in bacteriology and/or virology are especially encouraged to

Candidates are expected to have exceptional research credentials and a commitment to teaching at the graduate and undergraduate levels in one or more of the disciplines represented by the department. The department is contemporary and vigorous and is responsible for research and teaching programs in biochemistry, microbiology, and molecular and cell biology. The department has 30 research faculty and 80 graduate students. We maintain an aggressive research environment and encourage cooperative and interdisciplinary projects within and outside the department. Strong interactions exist with the chemistry and biology departments, the College of Agriculture, and the newly established Biotechnology Institute, with which joint appointments may be possible. Applications will be reviewed starting 8 October 1990 and continue until the positions are filled. Candidates should submit a résumé including a statement of research interests and goals and telephone numbers of at least three references to: Chairman of the Search Committee, Department of Molecular and Cell Biology, 108S Althouse Laboratory, The Pennsylvania State University, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

**POSITIONS OPEN** 

BIOCHEMISTRY, TENURE TRACK. Dickinson College, spring or fall of 1991. Ph.D. in biochemistry, with commitment to undergraduate chemical education. A research program with undergraduates is expected. Dickinson is a liberal arts college with ACS accreditation, six chemistry faculty, and new biochemistry teaching and research laboratories. Send résumé, undergraduate and graduate transcripts, statement of teaching philosophy, research plans, and three letters of recommendation to: Professor William Schearer, Dickinson College, P.O. Box 1773, Carlisle, PA 17013–2896. Affirmative Action/Equal Opportunity Employer.

TENURE-TRACK BIOCHEMISTRY POSITION. Rank open, fall 1991. Candidates should have an expertise in biochemistry, immunochemistry, and medical biochemistry. Teaching may include upper division lecture/laboratory courses and graduate courses. Candidate is expected to establish a research program in immunochemistry and be knowledgeable in techniques using protein antigen/antibody reactions, tissue/hybridoma cultures, and monoclonal antibodies. Further information and application forms can be obtained from Chairman, Department of Chemistry, San Jose State University (SJSU), San Jose, CA 95192–0101. Interviews will commence after 15 November 1990 and continue until the position is filled. Minorities and women are strongly encouraged to apply. SJSU is an Equal Opportunity/Affirmative Action Employer.

### PENNSYLVANIA STATE UNIVERSITY BIOLOGY FACULTY POSITIONS

The Department of Biology, Pennsylvania State Commonwealth Educational System, invites applications for five tenure-track positions available August 1991.

Berks Campus, Reading: vertebrate biologist position requires teaching general biology, anatomy, and physiology. McKeesport Campus, McKeesport: position requires teaching plant biology and genetics; microbiology background desirable. Ogontz Campus, Abington: position requires teaching general biology; anatomy and physiology expertise desirable. Wilkes-Barre Campus, Wilkes-Barre: position requires teaching physiology, ecology, and general biology; a background in genetics is desirable. Hazleton Campus, Hazleton: position requires teaching anatomy, physiology, and general biology.

Candidates must have Ph.D. degree. Continuing scholarly activity, including research and publication, will be required. Salary and rank commensurate with qualifications. Application deadline: 1 November 1990 or until suitable applicants are found. Separate application materials are required for each position. Send curriculum vitae, transcripts, and three letters of reference to: Search Committee, Box G, 208 Mueller Laboratory, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

## CRYSTALLOGRAPHER TENURE-TRACK FACULTY POSITION SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE (SIUC)

The Department of Chemistry and Biochemistry inrapher at the ASSISTANT, ASSOCIATE, OR FULL PROFESSOR level. The 12-month appointment (with cross appointment in SIUC School of Medicine) is part of the university's commitment to strengthen and expand its programs in molecular biology. The successful appli-cant will be expected to develop or have an active research program in structural molecular biology and participate in teaching. All candidates must have an earned doctorate and postdoctoral experience. Rank will depend on experience and qualifications. Generous startfunds are available along with access to computing facilities and a synchrotron source. Applicants should send their curriculum vitae, a statement of research plans, two reprints, and have at least three letters of reference sent to: Dr. James Tyrrell, Chair, Search Committee, Chemistry and Biochemistry, Southern Illinois University at Carbondale, Carbondale, IL 62901. Screening of applicants will commence 22 October 1990 and continue until the position is filled. Minority and female scientists are encouraged to apply. SIUC is an Equal Opportunity/Affirmative Action Employer.

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#### **POSITIONS OPEN**

#### FACULTY POSITION IN BIOCHEMISTRY/MOLECULAR BIOLOGY UNIVERSITY OF CALIFORNIA AT SANTA BARBARA

The Biochemistry and Molecular Biology Program and the Department of Biological Sciences invite applications for a tenure-track teaching/research position at the ASSISTANT PROFESSOR level. Potential areas of interest in eukaryotic cell microbiology include, but are not exclusive to oncogenes, retroviruses, receptors, and signal transduction mechanisms. Applicants must have a Ph.D. degree and postdoctoral training. The successful applicant will be expected to conduct a vigorous independent research program and to contribute to teaching in molecular cell biology and biochemistry at the graduate and undergraduate levels. The position is effective 1 July 1991. Applicants should submit their curriculum vitae, selected reprints, and a brief description of previous and anticipated research by 1 December 1990. Applicants should also arrange to have at least three letters of reference sent to: Director, c/o Frances McCutchon, Interdepartmental Biochemistry/Molecular Biology Program, Department of Biological Sciences, University of California, Santa Barbara, CA 93106.

#### FACULTY POSITIONS IN CELL, MOLECULAR, AND STRUCTURAL BIOLOGY

Applications are invited for tenure-track positions in the newly formed Department of Cell, Molecular, and Structural Biology at Northwestern University Medical School. Positions are available at all levels from ASSIST-ANT TO FULL PROFESSOR. Applicants must have a Ph.D., M.D., or equivalent degree, with research experience in cell, molecular, or structural biology. Applicants will be screened with respect to their ability to carry on vigorous independent research and to participate in the various teaching programs administered by the department. Send complete curriculum vitae and a brief description of research interests to: Dr. Robert D. Goldman, Chairman, Department of Cell, Molecular, and Structural Biology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611.

Northwestern University is an Equal Opportunity/Affirmative Action Educator and Employer and invites applications from all qualified individuals. Applications from women and minorities are especially sought.

#### FACULTY POSITIONS IN MOLECULAR BIOPHYSICS

The Department of Biophysics and Biophysical Chemistry at The Johns Hopkins University School of Medicine invites applications for several faculty positions in the newly funded Markey Center for Macromolecular Structure and Function. We anticipate that the appointments will be at the ASSISTANT PROFESSOR level although more senior appointment may be possible for highly qualified individuals. Areas of particular current interest are macromolecular structure determination by x-ray diffraction or NMR methods but appointments are also expected in other areas of molecular biophysics. Send curriculum vitae, a description of research interests, and arrange for three letters of recommendation to be sent, by 15 November 1990 to: Dr. Jeremy M. Berg, Department of Biophysics and Biophysical Chemistry, The Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore MD 21205–2185. FAX: 301-955-0637. An Affirmative Action/Equal Opportunity Employer.

MOLECULAR BIOLOGIST. The Department of Biology, The University of Alabama, is seeking applicants with research interests in any area related to the molecular biology of gene expression for a tenure-track faculty position. The appointment can be made at any level. The successful candidate will be a participant in the Molecular Biology Program within the department and will have access to excellent instrument facilities and generous start-up funds. Applicants should submit curriculum vitae, statement of research interests, reprints of recent publications, and the names and addresses of three references to: Dr. Janis O'Donnell, Chair, Search Committee, Department of Biology, The University of Alabama, Box 870344, Tuscaloosa, AL 35487–0344. Review of applications will begin 31 October 1990. The University of Alabama is an Equal Opportunity/ Affirmative Action Employer.

Department of Health and Human Services
Public Health Service • National Institutes of Health
National Institute on Deafness and
Other Communication Disorders

## **DIRECTOR**DIVISION OF INTRAMURAL RESEARCH

Opening Date: August 17, 1990 Closing Date: October 31, 1990 (All applications must be post-marked by the closing date.)

The National Institute on Deafness and Other Communication Disorders (NIDCD) is recruiting for the position of Director, Division of Intramural Research (DIR). The Director, DIR, directs a program of multidisciplinary fundamental and clinical research for the NIDCD. The Director, DIR, serves as the principal advisor to the Institute Director on biomedical and scientific affairs involving the intramural research programs conducted by basic and clinical research Investigators in the field of deafness and other communication disorders. The Director develops and recommends policies for the execution of the intramural research programs, determines their ongoing effectiveness, and recommends or develops new or revised direct research programs. In collaboration with senior officials, the Director, DIR, participates in the design and implementation of overall Institute management policies including program planning, budget formulation, and resource allocation. The Division of Intramural Research has an FY 1990 budget of \$4.3 million and a current FTE ceiling of 24.

This is a Civil Service position in the Senior Executive Service (SES), with base salary currently from \$71,200 to \$79,200 per year depending on qualifications. SES members are eligible for various bonuses and awards, and physicians are eligible for a comparability allowance of up to \$20,000 per year, although total compensation cannot exceed the rate for Executive Level I (currently \$107,300 per year). (Alternatively, applicants may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.) The SES individual selected, if not presently in the Senior Executive Service, must serve a one-year probationary period.

Further information about the position and qualification requirements may be obtained by contacting Ms. Christine A. Clements at (301) 402-0508 (Voice or TDD) or TDD (301) 402-1134. An Application for Federal Employment (SF-171) along with a Curriculum Vitae and Bibliography should be submitted to:

Ms. Christine A. Clements
Personnel Management Specialist
National Institutes of Health
National Institute on Deafness and
Other Communication Disorders
Building 31, Room B2C05
9000 Rockville Pike
Bethesda, Maryland 20892



Additional information may be obtained from: Dr. Edward Korn, Chairperson, NIDCD Search Committee for Director, Division of Intramural Research, NIDCD, National Institutes of Health, Building 10, Room 7N214, 9000 Rockville Pike, Bethesda, Maryland 20892. (301) 496-2116.

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## FLAVOUR CHEMIST RESEARCH SCIENTIST/SENIOR RESEARCH SCIENTIST

A\$32,471-\$39,724/A\$41,067-\$47,070

CSIRO DIVISION OF FOOD PROCESSING DAIRY RESEARCH LABORATORY HIGHETT, VICTORIA, AUSTRALIA

FIELD: Flavour Chemistry.

THE PROGRAM: The Dairy Research Laboratory, a Laboratory within the Division of Food Processing, conducts research aimed at improving the quality of dairy products, adding value to dairy products by developing new or improved manufacturing processes and by developing new products and finding new uses for existing products Working in association with the dairy industry, the Laboratory undertakes pure and applied research and has a reputation for successful development and transfer of technology to the commercial sector. The Laboratory has an active Flavour Group which has investigated both desirable and undesirable flavours of dairy products. In the course of this work many new techniques have been devised for the isolation, identification and quantification of flavour compounds. Equipment in the Laboratory includes a Finnigan 1020 gas chromatograph/mass spectrometer/data system, several gas chromatographs, HPLC and low pressure distillation systems.

The position offers to the right scientist an opportunity to develop a key role in the laboratory through a combination of scientific excellence and the solution of industrial problems.

**DUTIES:** The appointee will be required to develop an expertise in the various techniques of flavour chemistry currently used in the Laboratory, to undertake research into the desirable flavour of Cheddar cheese and to consult with Industry in connection with problems in the flavour of food.

QUALIFICATIONS: A PhD degree or equivalent qualification in Chemistry, including extensive experience in the analysis of trace quantities of organic materials although not necessarily flavour volatiles. Leadership qualities, research skills and the ability to liaise effectively with industry are essential.

**CONDITIONS:** Appointment will be on an indefinite basis with Australian Government Superannuation benefits.

MORE INFORMATION: Prospective applicants are invited to telephone Mrs. Gerda Urbach on (613) 556-2211 or write to the address below for further information. A copy of the detailed job description and selection criteria can be obtained from Mark Kenward on (613) 556-2211. Facsimile service is available on (613) 532-0003.

**APPLICATIONS:** These should be submitted by 19 October 1990 and should quote reference number GURS01. Applications should relate to the Selection Criteria and provide details of relevant personal particulars, including qualifications

and experience and the names and contact addresses of at least two professional referees. They should be addressed to:

The Head of Laboratory, CSIRO Division of Food Processing, Dairy Research Laboratory, P.O. Box 20, Highett, Victoria, 3190, Australia.



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#### 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 1991. 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.

#### MOLECULAR GENETICIST

The Department of Psychiatry of the Mount Sinai School of Medicine is seeking a well-trained molecular biologist interested in applying techniques of molecular biology to the investigation of the molecular genetics of schizophrenia.

Applicants should have a Ph.D. and/or M.D. and relevant experience in PCR techniques, RFLP analysis, DNA cloning, and sequencing. The successful candidate will work closely with a multidisciplinary team of molecular biologists, geneticists, psychiatrists, and clinical psychologists to determine linkage of various genetic markers to schizophrenia using well-characterized families. Substantial laboratory space and facilities have been allocated for this project. Opportunities for independent research within the project are also available.

Salary and rank will depend on qualifications and experience. Applicants should submit curriculum vitae

Salary and rank will depend on qualifications and experience. Applicants should submit curriculum vitae and three letters of reference to: Larry D. Altstiel, M.D., Ph.D., Department of Psychiatry, The Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.

The Mount Sinai School of Medicine is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

#### NEUROENDOCRINOLOGIST

The Neuroscience Unit at the Douglas Hospital Research Center is seeking a Ph.D., neuroendocrinologist with (i) a developed research program related to maturational changes in endocrine function, (ii) a background in molecular and cellular endocrinology, and (iii) an emphasis on hypothalamic-pituitary-adrenal function. The position is potentially tenure track, depending upon the strengths and performance of the individual, who will be expected to develop a strong, independent research program, acquire funding support, and participate in graduate student training. There are minimal teaching or administrative responsibilities. The Douglas Hospital Research Center is associated with McGill University and currently consists of eight faculty members with research interests ranging from molecular biology to psychobiology, with a strong record of collaboration, as well as a number of graduate and postdoctoral fellows. Send letter of interest, curriculum vitae, the names of three or more references, and any inquiries to: Michael J. Meaney, Douglas Hospital Research Center, Department of Psychiatry, McGill University, 6875 Boulevard La-Salle, Montréal, Québec H4H 1R3, Canada.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents possessing the required training and research background.

POSTDOCTORAL POSITION. Available immediately to study neuronal nicotinic receptors. Studies will focus on characterization of transiently expressed acetylcholine receptors in cos cells. Ph.D. and/or M.D. and experience in cell culturing is required. Experience in basic molecular biology techniques and/or patch clamping is desirable. Send curriculum vitae and names of three references to: Dr. Barbara A. Dodson, Department of Anesthesia, Box 0648, or Dr. John Forsayeth, Department of Physiology, Box 0444, University of California, San Francisco, San Francisco, CA 94143.

#### **POSITIONS OPEN**

### ORGANIC CHEMIST

A staff position requiring a Ph.D. in organic chemistry to join the chemistry group of a leading neuroscience company. The investigators will develop both peptide and non-peptide enzyme inhibitors for the treatment of neurodegenerative diseases. Broad experience in organic synthesis is necessary. Experience with molecular modelling is desirable.

Čephalon, located near suburban Philadelphia, offers an outstanding collaborative research environment, an excellent compensation package, and a newly constructed laboratory facility. Send résumé and the names of three references to: Dr. James Kauer, Cephalon, Inc., 145 Brandywine Parkway, West Chester, PA 19380.

The Department of Obstetrics and Gynecology at the University of Tennessee College of Medicine is actively recruiting a full-time PERINATOLOGIST for its Division of Maternal/Fetal Medicine. The teaching hospital serves as the Tertiary Care Center for 80 counties in West Tennessee, East Arkansas, North Mississippi, Southern Missouri, and a part of Kentucky; an area with approximately 40,000 deliveries per year. About 50% of the pregnancies delivered at the center are high-risk pregnancies. Perinatal services each year include over 20,000 outpatient visits, 7,800 deliveries, and over 1,400 patients seen in reproductive genetics. Excellent opportunity to participate in teaching in a Board-approved fellowship program and collaborate in ongoing research in clinical perinatology, critical care in obstetrics, ultrasound, and prenatal diagnosis. Board-eligibility/Board-certification in maternal/fetal medicine is required. Interested candidates should send curriculum vitae to: Baha M. Sibai, M.D., Division of Maternal/Fetal Medicine, University of Tennessee, Memphis, 853 Jefferson Avenue, Room E-102, Memphis, TN 38103. Telephone: 901-528-5660.

The University of Tennessee, Memphis, is an Equal Employment Opportunity/Affirmative Action/Title IX/Section 504 Employer.

## HARVARD MEDICAL SCHOOL POSTDOCTORAL POSITION

Position available immediately to study the role of cyclic GMP in signal transduction and cellular function. Research involves role of cGMP in platelet and smooth muscle cell signaling pathways, and isolation and characterization of unique substrates for cGMP-dependent protein kinase. Ph.D. in molecular biology with additional expertise in protein biochemistry preferred. Ability to work independently necessary. Send curriculum vitae and names/telephone numbers of three references to: Dr. Michael E. Mendelsohn, Department of Medicine, 75 Francis Street, Boston, MA 02115.

An Equal Opportunity Employer.

#### POSTDOCTORAL RESEARCH POSITION IN TROPICAL PALYNOLOGY SMITHSONIAN TROPICAL RESEARCH INSTITUTE

The Smithsonian Tropical Research Institute (STRI) invites applicants for a 3-year postdoctoral position in paleoecological palynology to start in July 1991. The institute is a bureau of the Smithsonian Institution and has headquarters in the Republic of Panama. The Center for Paleoecology at STRI is documenting the environmental and ecological history of the region, including anthropogenic influences on ecosystems. Investigators participating in the work of the center include Paul Colinvaux, Richard Cooke, Jeremy Jackson, and Dolores Piperno. Annual stipend starting at \$25,000 plus travel, benefits, and research support. Screening will begin on 1 January 1991 and continue until the position is filled. Applicants should include statement of research interests, curriculum vitae, reprints, and names, addresses, and telephone numbers of three references. Send to:

#### Palynology Search Committee Smithsonian Tropical Research Institute APO Miami 34002–0011

The Smithsonian Institution is an Equal Opportunity/Affirmative Action Employer, and appointment can be made without regard to nationality.

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#### **POSITIONS OPEN**

POSTDOCTORAL POSITIONS. To study neurotrophic factors (NGF and NGF-related). Transcription, mRNA stability, transgenic mice, cell lines, primary cultures, in vitro assays, computer modeling. Outstanding new laboratories. Dedicated core facilities. Strong interdepartmental interactions. Send curriculum vitae and names of three references to: Gerhard Heinrich, M.D., Biomolecular Medicine, Evans 600, University Hospital, Boston University Medical Center, 88 East Newton Street, Boston, MA 02118.

POSTDOCTORAL POSITIONS. Several positions are available immediately to study various aspects of gene expression including: thyroid hormone receptorabna interactions and hormonal regulation and cell-specific expression of renin, growth hormone, and prolactin genes. Experience in cell culture, transfection, general recombinant DNA and protein-DNA interactions is advantageous, however highly motivated individuals with backgrounds in related areas are encouraged to apply. Send application, curriculum vitae, and the names and telephone numbers of two references to: Dr. Daniel F. Catanzaro, Department of Physiology and Biophysics, Cornell University Medical College, 1300 York Avenue, New York, NY 10021. Telephone: 212-746-6497; FAX: 212-746-8690.

### POSITION IN MOLECULAR BIOLOGY/IMMUNOLOGY

Postdoctoral position available from November 1990 to work on one of the following topics: (i) expression and protein engineering of soluble T cell receptors in Escherichia coli, (ii) genetic manipulation of antibody fragments and the construction of novel immunotoxins using Escherichia coli as an expression host. For a relevant reference, please see Ward et al., Nature 341, 544–546 (1989). For the postdoctoral position, expertise in molecular biology expression of recombinant proteins and/or immunology is desirable, but not essential. Particular emphasis will be placed on the development of immunotherapeutic strategies for cancer and autoimmunity.

therapeutic strategies for cancer and autoimmunity.
Applications, including curriculum vitae and the names of two referees, should be sent to: Dr. E. Sally Ward, Cancer Immunobiology Center, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-8576.

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POSTDOCTORAL POSITION. Two positions for Ph.D. in neuroscience or related discipline to participate in studies of the pharmacology of brainstem and spinal cord pain pathways. First position (available immediately) to study involvement of GABAA/benzodiazepine/barbiturate receptor complex and GABAB receptors. Second position (available 1 February 1990) to study role of opioid receptor subtypes. Experience with behavioral testing, microinjection, or stimulation techniques preferred. Neuroanatomical or neurochemical expertise also desirable. Send curriculum vitae, two-page description of research interests, and names of three references to: Donna L. Hammond, Ph.D., Department of Anesthesiology and Critical Care, The University of Chicago, 5841 South Maryland Avenue, Box 428, Chicago, IL 60637.

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## POSTDOCTORAL POSITION ENDOCRINE TOXICOLOGY

Department of Pharmacology and Toxicology, Michigan State University. A Ph.D. scientist is needed to participate in research directed toward understanding the biochemical mechanisms by which certain chemicals inhibit the synthesis of insulin in animal and/or cellular systems. A strong background in biochemistry, pharmacology, or other disciplines in which molecular biology knowledge and experience have been gained is desirable. Measurement of mRNA levels by Northern analysis and other methods of investigation into the processes connected with synthesis of polypeptide hormones will be part of the research program. Funds are available for a 1-or 2-year commitment. Contact:

Lawrence J. Fischer, Ph.D.
Institute for Environmental Toxicology
C-231 Holden Hall
Michigan State University
East Lansing, MI 48824
Telephone: 517-353-6469

#### **RESEARCH SCIENTISTS**

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Research and development for direct detection of pathogenic organisms in clinical samples requires specialties in molecular biology, enzymology, nucleic acid chemistry, non-radioactive detection and medical microbiology. The project requires novel enzymatic approaches to target amplification, the use of paramagnetic particles, and luminescent detection.

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# TWO RESEARCH SCIENTIST POSITIONS IMMUNOLOGY AND MOLECULAR BIOLOGY

The R. W. Johnson Pharmaceutical Research Institute is currently seeking two research scientists to join the Immunology group at the Toronto, Canada site. The successful candidates will participate in a new drug discovery program focusing on the use of cloned receptors for the discovery of novel antagonists of adhesion molecules.

The successful candidates should have Ph.D. degrees and postdoctoral experience. One position requires expertise in molecular biology whereas the second position requires expertise in cellular immunology or cell biology. Experience in the area of cell adhesion and leukocyte migration will be an asset.

Please forward your curriculum vitae and references to: Mr. Pelly Shafto, Human Resources, R.W. Johnson Pharmaceutical Research Institute, 19 Green Belt Drive, Don Mills, Ontario M3C 1L9 Canada.



PHARMACEUTICAL RESEARCH INSTITUTE

# NCI FELLOWSHIP PROGRAM IN CLINICAL ONCOLOGY AND CANCER EPIDEMIOLOGY

The National Cancer Institute is accepting applications for a joint fellowship training program in clinical oncology and cancer epidemiology. Physicians with multidisciplinary training in clinical oncology, epidemiology, and etiologic research are becoming increasingly important in identifying cancer risk factors that may lead to further insights into human carcinogenesis and prevention strategies. This fellowship program offers such multidisciplinary training to physicians who have completed a minimum of two years in internal medicine or pediatrics.

The Clinical Oncology-Cancer Epidemiology Program is part of NIH's Clinical Associate Program, and offers three-year fellowships beginning July 1, 1991. The first year consists of clinical training in the Clinical Oncology Program, Division of Cancer Treatment. During this year, associates undertake the primary care of inpatients and outpatients entered into clinical trials and develop expertise in cancer diagnosis and treatment. Openings are available in the Medicine Branch, the NCI-Navy Medical Oncology Branch, and the Pediatric Branch.

During the second and third years, associates spend about 80% of their time in the Epidemiology and Biostatistics Program, Division of Cancer Etiology, and the remainder of their time in continued clinical activities in the Division of Cancer Treatment. In the epidemiology program, associates work under the direction of senior investigators in the Environmental Epidemiology Branch, the Clinical Epidemiology Branch, the Radiation Epidemiology Branch, and the Biostatistics Branch. All Branches are involve in research into environmental and host determinants of cancer. Opportunities for collaborative research may also be available in one of the intramural laboratories within the Institute.

This three-year fellowship is designed to fulfill the subspeciality requirements for Medical Oncology and Pediatric Hematology-Oncology. Candidates who have completed at least one year of clinical oncology training may be considered for direct entry into the second year of this program. Clinical Associates may enter the U.S. Public Health Service by means of the Civil Service or Commissioned Corps. For the Civil Service appointment, the starting salary is \$37,000, with annual increases of \$2,000 for each additional year in the program. Salaries for Commissioned Officers vary based on level of training and experience. Clinical Associates receive benefits that include health care, life insurance, vacation, and sick leave. In addition, moving and travel expenses are provided.

For further information and application procedures, please contact either:

Gregory Curt, M.D. Clinical Director National Cancer Institute Bldg. 10, Rm. 12N214 Bethesda, MD 20892 (301) 496-6375 Joseph F. Fraumeni, Jr., M.D. Associate Director for Epidemiology and Biostatistics National Cancer Institute Executive Plaza North, Rm. 543 Bethesda, MD 20892 (301) 496-1611

Deadline for Applications: March 1, 1991



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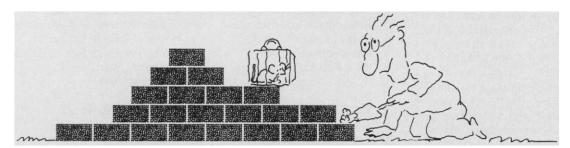
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### **POSTDOCTORAL FELLOW**

REGULATION OF GENE TRANSCRIPTION BY VITAMIN A IN SKIN

## UNIVERSITY OF MICHIGAN MEDICAL CENTER DEPARTMENT OF DERMATOLOGY

The Department of Dermatology is seeking an individual to join a multidisciplinary group to investigate the regulation of growth and differentiation of human skin cells by retinoids (vitamin A-related compounds). Studies will focus on the regulation of gene transcription by nuclear retinoic acid receptors and characterization of the biological activity of retinoic acid analogues. This information will provide a better understanding of the molecular basis of the effects of retinoids on skin. Expertise in molecular biology techniques preferred. Funding is available for at least three years with possibility of long-term employment.

Interested persons should send their curriculum vitae to John J.Voorhees, M.D., Chairman, Department of Dermatology, University of Michigan Medical Center, 1301 E. Catherine, Kresge I, R6558, Ann Arbor, MI 48109-0528.

### RESEARCH OPPORTUNITIES IN NEUROBIOLOGY

Amgen, a leader in the discovery and marketing of hematopoietic and tissue repair growth factors, has made a significant commitment to the development of protein therapeutics to treat neurological disorders. We have immediate openings at several career levels for scientists to participate in a multi-disciplinary research program to discover and develop novel neurotrophic factors using *IN VITRO* assays and *IN VIVO* models.

Successful candidates will have experience in one or more of the following: neuronal cell culture, neuropharmacology, neuroanatomy, lesion and disease paradigms and nervous system development. Additional expertise in immunologic techniques and molecular biology is desirable.

#### RESEARCH SCIENTIST POSITIONS.

Candidates should have a Ph.D. or equivalent in a relevant area and 1-3 years of postdoctoral experience. Additional experience as an independent scientist in academic or industry settings is desirable but not essential.

**POST-DOCTORAL POSITIONS.** A Ph.D. or equivalent in a relevant area of neurobiology is required.

**RESEARCH ASSOCIATE POSI- TIONS.** A Bachelor's degree or equivalent and relevant work experience in neurobiology, including neuronal cell culture or neurohistochemistry, are necessary.

Amgen offers a stimulating and challenging research environment on the leading edge of biotechnology. Our need for these positions reflects an ever increasing commitment to the development of significant products for human health care through excellence in research.

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Amgen representatives will attend the upcoming Society of Neurosciences meeting. We will provide the opportunity for confidential interviews there. Please indicate if you plan to attend so that we may schedule interview dates and times with you in advance.

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The Upjohn Company, a recognized leader in pharmaceutical research and development, is seeking applications for the position of Biochemistry Associate in our Control Biotechnology Development group. This position requires either an M.S. in Biochemistry or a B.S. in a biological science and several years of relevant experience. Technical strength and interest in protein biochemistry plus background and experience with protein spectroscopy, chromatography and electrophoresis are needed. The selected candidate will contribute to the development of analytical methods that define protein primary structure and conformation for product registration and stability studies.

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### Research Pharmacology

Applicants are sought for Senior (Ph.D., MD) and Associate (BS and MS) scientist positions to play a major role in the development of novel protein pharmaceuticals. Individuals with experience in the discovery and characterization of colony stimulating factors and bone growth factors are of particular interest. Candidates who can develop and utilize in vivo models in bone growth and repair, inflammation, wound healing, infectious disease, or tumor biology are highly desirable. Applicants should enjoy working in a collaborative team environment.

Please send resumes to Human Resources, 87 CambridgePark Drive, Cambridge, MA 02140. An equal opportunity employer.

## Genetics Institute

## UNIVERSITY OF COPENHAGEN FACULTY OF NATURAL SCIENCES PROFESSOR IN ASTROPHYSICS

Applications are invited for a Chair (Professorship) in Astrophysics at the Department of Astronomy, from June 1, 1991.

The Professor will be appointed as a Civil Servant under the Ministry of Education and Research. The annual salary is approximately Danish Kroner 360,000.

Applicants with a special knowledge of theoretical astrophysics or of observational astrophysics (including instrumentation) will be considered. Applicants with a wide range of qualifications within several areas – especially those relating to the Institute's field of research – would be preferred. Present and planned research projects are expected to be described in the application.

The research activities of the Institute are centered around distant galaxies and clusters of galaxies, the structure and development of the Milky Way, and stellar structure and evolution including solar physics. The Institute is partly situated in Copenhagen and partly in Brorfelde. The scientific staff includes 1 full professor and 15 associate professors. Denmark is a member of ESO and ESA, and the Astronomical Observatory has two national telescopes (1.5m and 0.5m) at the La Silla Observatory. Further, Copenhagen University is a user of the La Palma Observatory and runs a fully automatic meridian circle there. From 1990 there will be access to the Nordic Optical Telescope at La Palma. The Institute has at its disposal highly specialized electronic and mechanical workshops as well as access to excellent computer facilities. The Institute has an extended national collaboration (e.g. with the Danish Space Research Institute and the Niels Bohr Institute) as well as an international collaboration

The Professor will participate in the Department's teaching at all levels. The language of instruction is Danish, but English might be accepted for a period of two years after the annihiment

Applications should include copies of the scientific publications and further documentation which the applicant wishes to be considered, to be forwarded in triplicate together with a list of all submitted material.

Information concerning the applicant's teaching experience must be included. A Study Board (studienævn) will be asked to evaluate the applicant's teaching experience.

Evaluation of the applicants qualifications will be undertaken by a specially appointed Scientific Committee. The Committee's report will be sent to all applicants in an unabridged form.

Further information may be obtained from The Director, Astronomical Observatory, Øster Voldgade 3, DK-1350 Copenhagen K, Denmark.

Applications are to be addressed to Her Majesty the Queen of Denmark and sent to the Faculty of Natural Sciences, Panum Instituttet, Blegdamsvej 3, DK-2200 Copenhagen N, Denmark. The closing date for receipt of applications is November 30, 1990 at 12 hours.

POSTDOCTORAL FELLOW/RESEARCH FELLOW/SENIOR RESEARCH FELLOW RESEARCH APPOINTMENTS IN PHOTOSYNTHESIS AND PHYSIOLOGICAL PLANT PATHOLOGY. RESEARCH SCHOOL OF BIOLOGICAL SCIENCES. THE AUSTRALIAN NATIONAL UNIVERSITY. Several appointments are available and will be filled over 2 years from May 1991. Applications are invited from persons who have or will acquire experience in the following areas: (a) Photosynthesis, especially in areas which may help relate light reactions and carbon metabolism. Expertise in fluorescence analysis or photoacoustic evaluation of photosystem processes and/or analysis of the function of pigment/protein complexes is being sought. Preference will be given to applicants with experience of these approaches in higher plants and their environments. (b) Physiological plant pathology, especially in areas to do with interactions between plant viruses and photosynthetic functions. Applicants with experience in both plant photosynthetic physiology and virology will have an advantage. The successful candidates will join a research group in the School which will be headed by Professor C.B. Osmond, FRS, FAA, who will take up his appointment as Director of the School during the first half of 1991. Initial enquiries can be directed to: Professor C.B. Osmond, Department of Botany, Duke University, Durham, NC 27706, USA OR Professor B.E.S. Gunning, Acting Director, Research School of Biological Sciences, The Australian National University, GPO Box 475, Canberra ACT 2601, Australia, telephone 61 6 2493841, facsimile 61 6 249 0758. Closing date: 5 October 1990. Ref. BS 22.8.1. SALARY: Senior Research Fellow; A\$45,729-A\$54,255 p.a.; Research Fellow; A\$33,163-A\$43,096 p.a.; Postdoctoral Fellow Grade 1 (fixed point); A\$28,792-A\$32,762 p.a. APPOINTMENT: Senior Research Fellow/Research Fellow up to three years, possibility of extension to five years; Postdoctoral Fellow up to two years, possibility of extension to three years. APPLICATIONS should be submitted in duplicate to the Registrar, The Australian National University, GPO Box 4, Canberra ACT 2601, Australia, quoting reference number and including curriculum vitae. list of publications and names of at least three referees. The University reserves the right not to make an appointment or to appoint by invitation at any time. Further information is available from the Registrar.

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POSTDOCTORAL POSITION. Available immediately to study proteins/genes associated with cellular competence for shoot or callus induction in in vitro plant cultures. Ph.D. in plant biology required. Experience in plant tissue culture, protein biochemistry, and recombinant DNA techniques required. Send curriculum vitae and names of three references by 17 October 1990 to: Dr. Stephen G. Brnst, Department of Forestry, Fisheries and Wildlife, University of Nebraska–Lincoln, Lincoln, NE 68583–0814. Telephone: 402-472-6633. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION. Available immediately. Biologist/immunologist wanted with expertise in immunology and molecular biology. Responsibilities will be the production of anti-idiotype vaccines (hybridomacherived and recombinant antibodies) against cancer and AIDS. Please send your curriculum vitae with description of previous research experience and two letters of recommendation to: Dorothee Herlyn, D.V.M., Associate Professor, The Wistar Institute, 3601 Spruce Street, Philadelphia, PA 19104. FAX: 215-898-0980. Equal Opportunity Employer, M/F.

#### POSTDOCTORAL POSITIONS

To participate in molecular and genetic analyses of the functions of extracellular matrix molecules in C. elegans development (e.g., Cell 55, 555; J. Biol. Chem. 264, 17574; Mol. Cell. Biol. 10, 2081). Send curriculum vitae and names of three references to: Dr. James M. Kramer, Laboratory for Molecular Biology MC067, University of Illinois, P.O. Box 4348, Chicago, IL 60680. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Ph.D. (physiology, animal science, nutrition, or related area) for work in NIH-funded study of the effects of parenteral nutrition on intestinal growth and development in neonatal swine. Experience in intestinal function (e.g., transport, morphology, enzyme analysis, etc.) and experience handling experimental animals is preferred. Send curriculum vitae and three letters of recommendation to: Mark G. Clemens, Ph.D., Pediatric Surgical Laboratory, Johns Hopkins University, School of Medicine, Department of Surgery, CMSC 7-116, 600 North Wolfe Street, Baltimore, MD 21205.

POSTDOCTORAL POSITIONS. Available immediately to study cell-extracellular matrix interactions at the University of California, San Francisco (UCSF). Projects include the structural and functional characterization of a novel metalloproteinase inhibitor, study of mechanism(s) involved in the promotion of oncogenic transformation by this protein, and the identification and characterization of related members of this family of proteins. Background in cell and molecular biology, biochemistry, or immunology desirable. Please send curriculum vitae and three letters of recommendation to: Dr. Susan P. Hawkes, Department of Pharmacy, UCSF, San Francisco, CA 94143–0446. UCSF is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL ASSOCIATE, PLANT/TREE MOLECULAR BIOLOGY. Cloning of reproductive-specific genes from poplar, genetic engineering of tree sterility. Contact: Professor Steve Strauss, Department of Forest Science, Oregon State University, Corvallis, OR 97331–5705. Telephone: 503-737-2244, FAX: 503-737-1393, email/internet: strauss @ fsl.orst.edu. Position availability closes 1 November 1990.

#### POSTDOCTORAL ASSOCIATE MOLECULAR CELL PHYSIOLOGY HARVARD MEDICAL SCHOOL

Two postdoctoral positions available immediately in the molecular cell biology of transport proteins in polarized epithelial cells. One project focuses on structure-function relationships in Cl<sup>-</sup>/HCO<sub>3</sub><sup>-</sup> exchanger proteins (*JBC* 263, 17092). The second project addresses the function of the cystic fibrosis transmembrane regulator and its effects on ion transport. Both offer the opportunity to investigate determinants of epithelial polarity (*PNAS* 86, 5429). Interested Ph.D.'s or M.D.'s with prior experience in molecular cell biology or in transport physiology should send curriculum vitae and three references to: Seth L. Alper, M.D.-Ph.D., Molecular Medicine Unit, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215.

#### **POSITIONS OPEN**

POSTDOCTORAL POSITION. To study the role of the microtubule cytoskeleton in cell motility and morphogenesis. The project will focus on control of microtubule dynamics by growth factors and will combine biochemical, immunological, and video-based microscopy approaches. Send curriculum vitae and three letters of reference to: Dr. Gregg G. Gundersen, Department of Cell Biology and Anatomy, Columbia University, College of Physicians and Surgeons, 630 West 168th Street, New York, NY 10032. We take Affirmative Action toward Equal Opportunity.

POSTDOCTORAL FELLOWSHIP. The Hematology Division, Vanderbilt University, is seeking qualified postdoctoral candidates to pursue basic research in the thrombosis and hemostasis field. Areas of research include: structure and functions of serine proteases and their inhibitors, regulation of serpin biosynthesis. Candidates must have a strong background in protein biochemistry or in cellular and molecular biology. Send curriculum vitae to: Dr. Marc Schapira, Vanderbilt University, Hematology Division, Nashville, TN 37232. Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIPS. The Lineberger Cancer Research Center of the University of North Carolina (UNC) at Chapel Hill will have openings in 1990–91 for persons completing graduate studies to train with excellent investigators in basic research in tumor virology, chemical carcinogenesis, drug development, cancer cell biology and tumor immunology. Training is available in recombinant DNA technology, gene expression, DNA replication, mutagenesis, molecular enzymology, regulation of cellular proliferation, growth factors, immunogenetics, molecular genetics of cancer, and combined programs. Unique training resources and core facilities are housed in the NCI-designated Lineberger Comprehensive Cancer Center. Candidates must be U.S. citizens or permanent residents. Send for brochure listing faculty and apply with curriculum vitae, three letters of recommendation, a statement of research interests, and graduate school records to: Director, CB#7295, Lineberger Comprehensive Cancer Center, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599. UNC's Cancer Research Center is an Affirmative Action/Equal Opportunity to identify themselves.

The Department of Neurosciences, University of California, San Diego (UCSD), is seeking qualified applicants for positions as ASSISTANT RESEARCH NEUROSCIENTIST and POSTDOCTORAL FELLOW. The qualified individuals will be involved in the research of the molecular aspect of neurodegenerative disease, especially ischemia, for a period of 3 years. Successful candidate is expected to have a strong background of biochemistry and molecular biological characterization of protein kinases and molecules involved in phosphorylation cascade reactions during animal model of ischemia. Salary will be commensurate with candidate's experience and university policy. Send curriculum vitae and names and addresses of five references to: Drs. Tsunao Saitoh or Justin Zivin, U.C.S.D., Department of Neurosciences, 9500 Gilman Drive, La Jolla, CA 92093–0624. UCSD is an Affirmative Action/ Equal Opportunity Employer. Closing date for applications is 31 October 1990.

HUMAN CHEMORECEPTION. The John B. Pierce Laboratory, devoted to research and education in health and the environment and affiliated with Yale University, seeks an ASSISTANT FELLOW (analogous to assistant professor) with experience in the human sense of smell and sensory irritation to join an ongoing research program. Applicants should have a doctoral degree in a relevant specialty. Experience in pharmacology/toxicology and biochemistry would be particularly desirable. Applicants should send curriculum vitae, a statement of research plans, representative publications, and the names of three references by 1 November 1990 to:

Human Chemoreception Search Committee
The John B. Pierce Laboratory
290 Congress Avenue
New Haven, CT 06519-1403

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#### **IMMUNOLOGIST**

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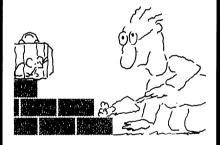
Candidates with expertise in the field of cellular immunology/immunochemistry are sought to participate in an aggressive research and development program at the postdoctoral and staff scientist levels. To qualify, an individual must have a Ph.D. in biochemistry, immunology, cell biology or equivalent, and a working knowledge of basic immunochemistry and cellular immunology techniques. Experience in antigen recognition of T cells is favored.

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ADVANCED POSTDOCTORAL SEARCH ASSOCIATE POSITION, Center for AIDS Research at Stanford: Ph.D. or M.D. with up to 2 or 3 years of advanced postdoctoral training or experience in viral immunology, cellular immunology, protein chemistry, or related fields to implement a funded program under a National Cooperative Vaccine Development Group for AIDS. The work involves new adjuvant approaches for recombinant subunit proteins, to be studied in vivo and in vitro viral models to determine the best methods of administrating HIV antigens in future vaccine efforts. The candidate should be capable of conducting an active independent research program which would be a component of a larger effort in the area of host resistance to viral infection. Interested applicants contact: Thomas C. Merigan, M.D., Director, for AIDS Research, Stanford University, Stanford, CA 94305. Stanford University is an Equal Opportunity Employer.

#### POSTDOCTORAL RESEARCH IN CELL BIOLOGY CENTER FOR BASIC RESEARCH IN DIGESTIVE DISEASES MAYO CLINIC

Postdoctoral position available for recent Ph.D. or M.D. to study the molecular and biochemical mechanisms of secretion in digestive tissues. Experience in immunological, molecular, or biochemical techniques is desirable. Applicants must be U.S. citizen. Send curriculum vitae, statement of research interests, and names of three references to: Dr. N. F. LaRusso, Director, Center for Basic Research in Digestive Diseases, Guggenheim 17, Mayo Clinic, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT RESEARCHER/POSTDOCTOR-AL SCIENTIST. Retroviral Research Laboratory, Can-AL SCIENTIST: Retroviral Research Laboratory, Cancer Research Center of Hawaii, has a full-time position beginning November 1990, federal grant funding through September 1991, competitive renewal thereafter. Incumbent will conduct clinical and epidemiological studies of HIV proviral sequences in patients. The project will use molecular technology to develop diagnostic and prognostic markers to follow individuals infected with HIV Minimum requirements. Ph. D. in an infected with HIV. Minimum requirements: Ph.D. in an appropriate discipline, or an M.D. with research experience in molecular biology. Minimum annual salary: \$35,376. To apply send curriculum vitae and names, addresses, and telephone numbers of four references to: Dr. Tom Humphreys, University of Hawaii, Pacific Biomedical Research Center, 1993 East-West Road, Honolulu, HI 96822. Inquiries: 808-539-7327. Closing date: 1 November 1990. Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE to conduct research on reversible immortalization of neural and muscle cells, developing new approaches to the treatment of muscular dystrophy and other degenerative diseases. Candidates must have a M.S. in biochemistry with 3 years research experience in molecular genetics and gene manipulation. The successful candidate must have research experience in: (i) primary muscle cell culture and neural cell culture; immortalization of neural and muscle cells; (ii) antisense oligodeoxynucleotide construction and manipulation; expression vector construction for immortalization; (iii) tumor suppressor gene expression and regulation in neural and muscle cells; (iv) cell analysis by flow cytometry and the MTT method. Forty hours per week; \$27,000 per year. Send this ad and your résumé in duplicate to: C. Wester, UCLA/Reed Neurology, 710 Westwood Plaza, Los Angeles, CA 90024–1769. An Equal Opportunity Employer.

DIRECTOR, ELECTRONIC ENGINEERING (Computer Science). Design and develop algorithms and software systems for multidimensional medical image display and analysis, for VIEW-2000 and Stardent workstations, using imaging modalities such as CT and MRI. Must have Ph.D. in computer science for medical applications or biomedical engineering and image processing, plus 2 years of experience in this job or related research. Must be able to develop software for VIEW-2000 and Stardent and have combination of theory and design engineering, and experience must be in field of low-level segmentation of CT and MRI. Salary: \$61,800 per year. Job and interview in Brea, California. Send this ad and résumé to: Job #BLW18267, P.O. Box 9560, Sacramento, CA 95823-0560 by 5 October 1990.

#### **POSITIONS OPEN**

#### POSTDOCTORAL ASSOCIATE

Opportunity to participate in ongoing research directed at: characterization of the genes and molecular mechanisms involved in the formation of meningiomas and other neural crest tumors; molecular and cellular characterization of a recently identified oncogene/DNA binding protein. Send curriculum vitae with the names, s, and telephone numbers of three references to: Dr. Donna George, Department of Human Genetics, Howard Hughes Medical Institute, University of Pennsylvania School of Medicine, 422 Curie Boulevard, Philadelphia, PA 19104-6145. An Equal Opportunity Employer.

#### POSTDOCTORAL RESEARCH ASSOCIATE

A postdoctoral research associate position, funded for 3 years, is available immediately to study tissue-specific regulation of a human gene. Research involves molecular cloning and expression of genes for transcription factors, transcriptional studies, and protein purification. Candidates must have biochemistry and/or molecular biology background. Salary will be commensurate with experience. Please send résumé and arrange to have three letters of references sent to: Gokul C. Das, Department of Molecular Biology, The University of Texas Health Center at Tyler, P.O. Box 2003, Tyler, TX 75710. FAX: 214-877-7558.

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RESEARCH ENGINEER. Develop hybrid speech recognition system using advanced signal processing and acoustic phonetic knowledge base. Develop software to recognize and understand human speech. Must have Ph.D. plus 6 months of experience of M.S. plus 4 years of experience; degree must be in Computer Science or Electronic Engineering. Experience must include advanced signal processing, phoneme-based stochastic modeling of speech, neural net theory and techniques, and knowledge base construction and application for machine intelligence. Must have research experience in automatic speech recognition. Job and interview in Santa Barbara, California. Salary: \$4685 per month. Send this ad and résumé to: JOB #KV17958, P.O. Box 9560, Sacramento, CA 95823-0560 by 5 October 1990.

RESEARCH INVESTIGATOR. The Department of Dermatology, University of Michigan, seeks a Ph.D. with one or more years of postdoctoral experience in molecular and/or cellular biology to join an established laboratory studying the molecular biology of growth regulation and gene regulation in human skin. Areas of interest include: receptor tyrosine kinases, growth factor gene regulation, retinoid and steroid receptors, and dermal-epidermal interactions. Send curriculum and two letters of reference to: James T. Elder, M.D., Ph.D., University of Michigan, C560 MSRB II, Box 0672, Ann Arbor, MI 48109-0672. An Equal Opportunity/Affirmative Action Employer.

The California Air Resources Board is accepting applications for AIR POLLUTION RESEARCH SPE-CIALISTS. Applicants must have a bachelor's degree with major work in engineering, math, or physical/ biological/environmental sciences and 4 years of experience in those areas including 1 year of specialized experience in research consultation and determination of research design/methods for studies in air pollution or related field. May substitute graduate work on year for year basis for 3 years of experience. Salary: \$3741 to \$4516 per month plus benefits. Inquire before 15 October 1990. Write to: Air Resources Board, 1234 U Street, Sacramento, CA 95818 or telephone: 916-

FISHERY RESEARCH. The Texas Parks and Wildlife Department seeks two RESEARCH SPECIAL-ISTS in the Coastal and Inland Fisheries Branches to design, perform, and report applied quantitative research into broad aspects of fishery management, manage data bases, and support technical programs. Qualifications include an M.S. degree in fishery science, biology, statisinclude an M.S. degree in insiery science, bloogy, statistics or related field, and expertise in statistics and computing. Applicants with Ph.D. are welcome. Salary is \$31,848. Contact: Steve Gutreuter, Ph.D., Inland Fisheries Branch, telephone: 512-389-4652, or Maury F. Osborn, Coastal Fisheries Branch, telephone: 512-389-4647, Texas Parks and Wildlife Dephone: 5 partment, 4200 Smith School Road, Austin, TX 78744. An Affirmative Action/Equal Opportunity Employer.

#### **POSITIONS OPEN**

ARNOLD RESEARCH COORDINATOR. The Arnold Arboretum of Harvard University invites applications for a coordinator to manage a multidisciplinary research project in the rain forests of tropical Asia under the local direction of Professor Peter Ashton. Responsibilities will include: establishment of field research sites in cooperation with country scientists; coordination of data collection, including site visits and supervision of project personnel; establishment, management, and analysis of a central database; preparation of reports and research publications. Qualifications will include Ph.D. in plant biology; field experience in tropical forests, preferably in As sia; proven managerial skills with collaborative programs; experience with computer database management; demonstrated research capabilities. Send résumé, letter of interest, and the names of three references to: Dr. Robert E. Cook, Arnold Arboretum, 125 Arborway, Jamaica Plain, MA 02130.

RESEARCH ASSOCIATE to perform research on degenerative neurological diseases using genetic engineering techniques to develop in vitro models, and to develop treatments employing gene therapy approaches. Required qualification: M.S. degree with a minimum of 3 years of experience or M.D. degree. Laboratory experience must include (i) preparation and characterization of DNA/RNA and plasmid DNA, polymerase chain reaction (PCR), cloning and subcloning of cDNA, purification and labeling of oligonucleotides, microinjection, and familiarity with head and neck cancers and associated oncogenes; (ii) primary cell culture and cloning, immunofluorescent assay, enzyme-linked immunosorbent assay (ELISA), virus stocks and infected cells; (iii) microsurgery on embryonic brain. Forty hours per week; \$29,784 per year. Send this ad and your résumé in duplicate to: C. Wester, Reed Neurology/UCLA, 710 Westwood Plaza, Los Angeles, CA 90024–1769. An Equal Opportunity Employer.

STAFF SCIENTIST position available to conduct earch and development on tests that will detect chemically induced structural and chromosome aberrations and aneuploidy in somatic and germ cells. Ph.D. in genetics and a minimum of 2 years of research experience in conducting in vivo chromosome aberrations and aneuploidy assays using antikinetochore and antibody tagging is required. Salary: \$18.60 per hour. Please mail résum and copy of ad to: Department of Economic and Employment Development, 1100 North Eutaw Street, Room 212, Baltimore, MD 21201. Job order # 8945159. Job location: Rockville, Maryland.

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# Inflammation/Immunology Research Opportunities

Pfizer Inc is an international leader in the research and development of health care products. The Department of Immunology and Infectious Diseases of the Central Research Division is committed to innovative research leading to the discovery of novel therapeutics for the treatment of inflammatory diseases. Our approach to drug discovery encourages individual creativity as an important element in guiding a team effort toward a therapeutic target. This philosophy results in an environment that is challenging to the individual while enhancing group productivity. Scientific growth and development are stimulated by frequent interactions with prominent scientists in academia and medicine as well as with members of the research community within Pfizer.

A PhD degree, appropriate postdoctoral training and a record of accomplishment in your research endeavors is required for each of the following positions. Previous industrial research experience is welcome but not essential.

Osteoarthritis — We seek both a laboratory supervisor and a research leader in this area. The latter position is distinguished by a requirement for more extensive research experience in OA in order that the individual be capable of playing a clear scientific leadership role. Both positions would focus on developing and applying-systems related to the pathogenesis and treatment of osteoarthritis. Appropriate fields of training include protein biochemistry, molecular biology, cell biology or experimental pathology. For those with in vitro expertise, experience with cartilage/chondrocyte biochemistry/metabolism is required (with regulation by cytokines being of particular interest). For those whose primary experience has been with in vivo models of osteoarthritis, experimental assessment of mechanisms and pharmacological effects will be important.

Inflammation Models — This position calls for research experience in the area of acute and chronic *in vivo* models of pain and/or inflammatory disease (including, but not limited to, arthritis). It will involve the application of known models and establishment of new ones relevant to novel drug targets. The ability to extract multiple levels of information from such models is particularly important (e.g., symptomatic, histological, biochemical, electrophysiological, behavioral).

Pulmonary Diseases - We seek two scientists to contribute to the discovery of new antiasthma/allergy therapies. Current interests encompass the pharmacologic manipulation of leukocyte functions/interactions in models of airway inflammation/hyperreactivity. One position calls for experience with animal models of pulmonary disease and their mechanistic basis. Appropriate fields of training include physiology, pathology or pharmacology. Experience with methods and theory of pulmonary mechanics is especially desired. The second position will focus on immune cell regulation, with a particular emphasis on modulation of cytokines, receptors and signal transduction processes. Appropriate fields of training include immunology, biochemistry, cell biology or pharmacology. For this position, prior research on problems associated with immediate and delayed hypersensitivity reactions is desirable, but not required.

We offer a stimulating research environment and an excellent opportunity for professional recognition and advancement. In addition, we provide a competitive salary/benefits package and an opportunity to live in an attractive Connecticut shore community. Qualified applicants should submit their resume and references in confidence to: Dr. Jerry K. Larson, Assistant Director, Employee Resources, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, Connecticut 06340. An equal opportunity employer.



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