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Ares-Serono Symposia is an independent foundation, created in 1971, to promote scientific research in all disciplines which contribute towards improving human health. This aim is pursued by means of congresses, courses, seminars and scientific publications.

Some of the international meetings scheduled for 1992 are:

2nd Int. Congress on Cytokines : Basic Principles and Clinical Applications
March 23-25 / Florence (I)

Scientific Organization: A.K. Abbas (USA), T.R. Mosmann (CDN) and S. Romagnani (I)

4th Int. Symposium on Hypoglycemia

March 23-24 / Rome (I)

Scientific Organization: D. Andreani (I) and V. Marks (UK)

3rd Int. Symposium on Reproductive Medicine

April 13-15 / Malta

Scientific Organization: E. Steinberger (USA) and G. Frajese (I)

Implantation in Mammals

April 23-24 / Geneva (CH)

Scientific Organization: A. Campana (I)

9th Workshop on Development and Function of the Reproductive Organs

May 25-27 / Peebles (UK)

Scientific Organization: S.G. Hillier (UK)

Heterogeneity of Cancer Cells

June 16-17 / Milan (I)

Scientific Organization: S. Garattini (I)

"Redo" Vascular Surgery

Renal, Aorto-Iliac and Infrainguinal Areas

June 25-27 / L' Aquila (I)

Scientific Organization: R. Courbier (F), A.M. Imparato (USA) and C. Spartera (I)

Local Systems in Reproduction

July 6-7 / Paris (F)

Scientific Organization: R.R. Magness (USA) and F. Naftolin (USA)

5th Int. Congress on Reproductive Immunology

August 31 - September 3 / Rome (I)

Scientific Organization: F. Dondero (I) and S. Isojima (I)

5th Conference on Differentiation Therapy

September 2-5 / Villasimius, Sardinia (I)

Scientific Organization: M. Hozumi (I), G.B. Rossi (I), and S. Waxman (USA)

3rd Int. Symposium on Endocrinology Under 35

September 7-9 / Rapallo (I)

Scientific Organization: A. De Bellis (I), E. Cordella-Miele (USA) and K.B. Marschke (USA)

G-Protein Associated Membrane Receptors, Molecular Biology, Signal Transduction and Physiology

September 21-23 / Geneva (CH)

Scientific Organization: M. Ascoli (USA) and D.L. Segaloff (USA)

Growth '92: Two Decades of Experience in Growth

October 8-9 / Santiago de Compostela (E)

Scientific Organization: J. C. Job (F) and M. Pombo (E)

The proceedings of Ares-Serono Symposia conferences are published by Raven Press, NY (USA).

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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.

Scanning Electron Microscopes

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DNA Amplification Kit

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abling wavelength changes from 190 to 650 nm as a function of time for increased sensitivity. A status screen monitors the condition of the separation in progress, wavelength changes, elapsed time, and fluorescent signal. Rainin Instrument Co. Circle 463.

Literature

GC/MS Analysis of Trace Gases in Air Using the HP MS Engine Mass Spectrometer is a six-page application note. Hewlett-Packard. Circle 464.

J & H Berge, Inc., is a 950-page listing of a full line of lab supplies, with everything from air samplers and animal equipment to water sampling items and reagents. J & H Berge. Circle 465.

Reagents and Chromatography Catalog provides specifications and pricing for more than 7000 products, including many new laboratory reagents, high-purity acids and solvents, safety products, and services for chromatography and biotechnology. J. T. Baker. Circle 466.

ATCC Catalogue of Protists, 1991, lists more than 1052 strains, more than 100 of which have been added since the previous 1985 catalog. Twenty-five new genera are presented. American Type Culture Collection. Circle 467.

HPLC Columns, Methods, and Applications contains 120 pages of information to help users select the right product for an application and hints to help them optimize high-performance liquid chromatography operations. Bio-Rad Laboratories. Circle 468.

Three new *Application Notes* provide information on how the SMART System can be used to purify nanogram and low microgram quantities of receptors, neuroactive substances, and DNA. Pharmacia LKB Biotechnology. Circle 469.

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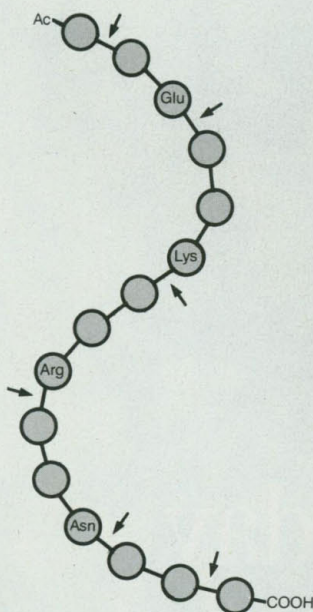
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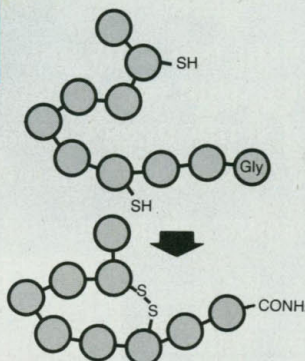
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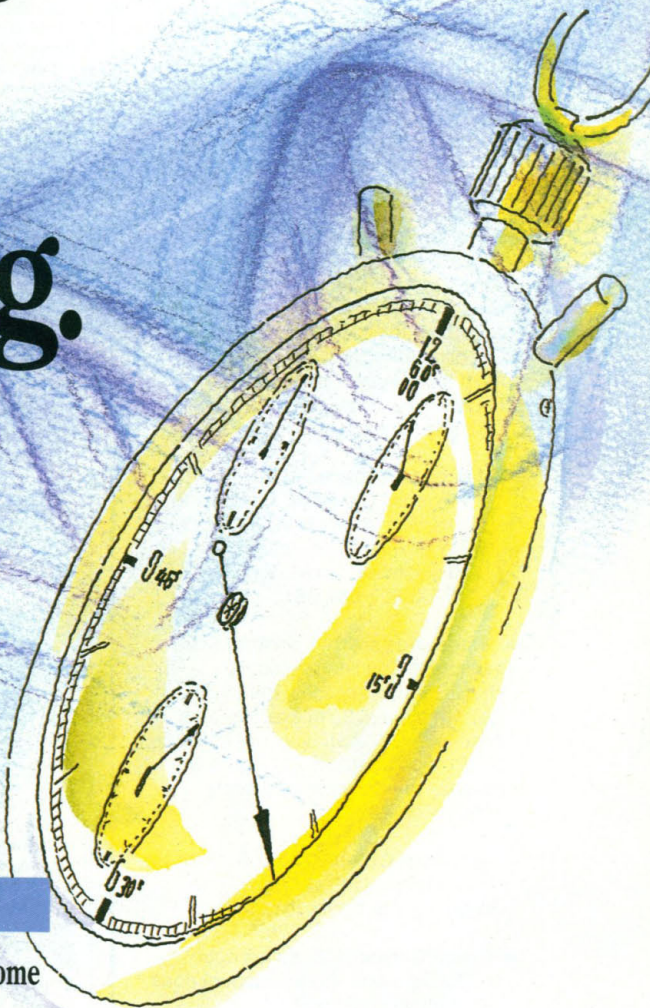
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POSITIONS OPEN

ASSISTANT PROFESSOR. The Department of Chemistry at Stanford University will consider applications for a tenure-track appointment as assistant professor starting in the 1992/1993 or 1993/1994 academic year. Preference will be given to applicants in physical chemistry or closely related fields. Applicants must be strongly motivated toward creative research and have a commitment to teaching at the undergraduate and graduate levels. In applying, please send curriculum vitae, list of publications, a brief statement of research interests (three pages or less) and, in addition, have three letters of recommendation sent to: **Professor Harden M. McConnell, Chairman, Department of Chemistry, Stanford University, Stanford, CA 94305.** *Stanford is committed to Equal Opportunity through Affirmative Action in Employment, and we are especially eager to identify minority persons and women with appropriate qualifications.* Applications should be received by 1 December 1991.

The Department of Biological Sciences at Indiana University at South Bend seeks candidates to fill a tenure-track **ASSISTANT PROFESSOR** position starting August 1992. Candidate responsible for teaching anatomy and physiology and upgrading the physiology laboratory in the nursing program. Teaching a course in developmental biology, and developing a research program involving undergraduates also required. Salary competitive, benefits excellent. Submit detailed résumé and have three letters of recommendation sent to: **Dr. Victor Riemenschneider, Indiana University at South Bend, P.O. Box 7111, South Bend, IN 46634** by 15 November 1991. *Affirmative Action/Equal Opportunity Employer.*

HARVARD UNIVERSITY DEPARTMENT OF CHEMISTRY ASSISTANT PROFESSOR OF ORGANIC CHEMISTRY

Applications are invited for an assistant professorship in any area of organic chemistry beginning in either the 1992/93 academic year or the 1993/94 academic year. Applicants should arrange to have three letters of recommendation sent independently and should provide curriculum vitae and brief descriptions of their future research plans. *Harvard University is an Affirmative Action, Equal Opportunity Employer. Applications from women and minority group members are welcome.* Applications and supporting materials should be sent no later than 1 November 1991, to: **Professor Stuart L. Schreiber, Department of Chemistry, Harvard University, 12 Oxford Street, Cambridge, MA 02138.**

Applications are invited for a tenure-track faculty appointment as **ASSISTANT PROFESSOR** in the Department of Microbiology and Immunology, School of Medicine, University of North Carolina at Chapel Hill, beginning summer 1992. We seek a candidate with the clear capability to establish and maintain an independent research program in any area of prokaryotic molecular biology, genetics, pathogenesis or physiology and who will participate in the teaching of graduate and medical students. A doctoral degree and relevant postdoctoral experience are required. Preference will be given to applicants who reply before 1 December 1991. Respond to: **Dr. Philip Bassford, Search Committee, Department of Microbiology and Immunology, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599**, including curriculum vitae, statement of research interests and future plans, representative reprints and names and addresses of at least three references. *Women and minorities are encouraged to apply and to identify themselves. The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR, BIOLOGY. Nicholls State University invites applications for a tenure-track (9-month) position. Successful applicant will conduct research on coastal fish, teach undergraduate ichthyology, general zoology and possibly one of the following: ecology, evolution, or comparative anatomy. Deadline: 25 October 1991. Send letter of application, curriculum vitae, and the names and telephone numbers of three references to: **Dr. Earl Melancon, Department of Biological Sciences, Nicholls State University, Thibodaux, LA 70310.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR DEPARTMENT OF MICROBIOLOGY THE UNIVERSITY OF TENNESSEE KNOXVILLE, TENNESSEE

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Responsibilities: Graduate and undergraduate teaching in virology/molecular biology, establishment of a productive independent research program, and academic responsibilities normally associated with a tenure-track faculty position.

Starting date: 1 August 1992.

Applicants should submit a letter of interest accompanied by curriculum vitae, a description of the applicant's research program and career objectives, and arrange for letters of reference to be sent by three individuals who can evaluate the applicant's qualifications for the position. *Applications from women and minorities are especially invited.* All material should be sent to: **Dr. David Brian, Chairman, Search Committee, Department of Microbiology, University of Tennessee, Knoxville, TN 37996-0845.** Nominations should be made as soon as possible; evaluation of applications will begin in December 1991. *The University of Tennessee is an Equal Opportunity/Affirmative Action/Title IX/Section 504/ADA Employer.*

BEHAVIORAL ECOLOGIST

The Department of Ecology, Ethology, and Evolution of the University of Illinois at Urbana-Champaign is enhancing its academic programs and will be adding several faculty in the areas of behavioral ecology, evolutionary ecology, and systematics and evolution over the next 3 years. A number of ecologists, behaviorists, and evolutionary biologists in other biology departments and from the State Natural History Survey are affiliated with the Department of Ecology, Ethology, and Evolution. Departmental faculty participate in the organization of tropical studies programs. We are now inviting applications for a full-time, tenure-track position at the **ASSISTANT PROFESSOR** level in the area of behavioral ecology to begin 21 August 1992. Preference will be given to individuals with an orientation toward field studies of behavior in an ecological and evolutionary context. Candidates must be qualified to teach courses in introductory animal behavior and advanced behavioral ecology. Postdoctoral experience preferred. Salary commensurate with training and experience.

Send applications, including curriculum vitae, a summary of research and teaching interests, and the names and addresses of three references to: **Dr. George O. Batzli, Chair of Search Committee, Department of Ecology, Ethology, and Evolution, University of Illinois, 515 Morrill Hall, 505 South Goodwin Avenue, Urbana, IL 61801.** Telephone: 217-333-0894 or 217-333-7802 for additional information. To assure full consideration all application materials must be received by 15 November 1991. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

CELLULAR/MOLECULAR BIOLOGY MOLECULAR NEUROBIOLOGY

Harvey Mudd College (HMC) is seeking candidates for two tenure-track faculty positions at the **ASSISTANT PROFESSOR** level to join a new program in biology. Candidates for one position must have expertise in molecular mechanisms of some aspect of neurobiology such as nervous system development, physiology or behavior. Candidates for the other position must have expertise in some other area of eukaryotic cellular/molecular biology such as development or genetics. Breadth of knowledge for excellent undergraduate teaching in a small department is required, as is a research program appropriate for participation by advanced undergraduates. HMC is a small private college of science and engineering (member of the Claremont Colleges) with a select undergraduate student body. Send curriculum vitae, research statement, and three letters of reference to: **Dr. T. J. Mueller, Department of Biology, Harvey Mudd College, Claremont, CA 91711.** To assure consideration, all materials should be received by 20 November 1991. *An Equal Opportunity/Affirmative Action Institution. Women and minorities are encouraged to apply.*



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STAFF SCIENTISTS, CELL AND MOLECULAR BIOLOGY We are seeking accomplished molecular and cell biologists to join our in-house research programs in the areas of cell adhesion (LECCAMS and integrins) in inflammation and metastasis, analysis of MHC/T-cell interactions and signal transduction and nuclear signalling during inflammatory responses. The ideal candidate will have a PhD along with proven experience in one or more of these areas and be highly skilled in molecular and cell biology. **DEPT. MK**

STAFF SCIENTIST, MOLECULAR BIOLOGY AND BIOCHEMISTRY We are seeking a PhD with 3-8 years experience and a strong background in protein chemistry/biochemistry. The candidate should have experience in the purification and characterization of enzymes or membrane-associated molecules. Skill in assay development would be helpful. Preference will be given to those candidates familiar with adhesion molecules or integrins. **DEPT. LW**

STAFF SCIENTIST, SYNTHETIC ORGANIC CHEMISTRY The successful candidate will perform innovative, highly visible research in a multidisciplinary team effort focused on the study of cell adhesion. An individual with the ability to organize and innovate is highly desirable. A PhD in synthetic organic chemistry is required. **DEPT. FG**

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**Dr. Sheldon J. Segal
Chair, Search Committee
Marine Biological Laboratory
Woods Hole, MA 02543**

All resumes should be received prior to December 1, 1991. The MBL is an Affirmative Action/Equal Opportunity Employer.

**Public Health Service
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The Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, invites applications for a Fellowship position to study brain lipid metabolism in relation to development, aging and neuroplasticity, pharmacological and physiological activation in animals. Research opportunities include examination of incorporation of radiolabeled fatty acids into brain, using analytical techniques to examine mass and specific activity within precursor pools and phospholipid species; examining brain lipid composition in Alzheimer's disease. The position is located in Bethesda, Maryland, and is available immediately.

Interested candidates should submit their Curriculum Vitae and two letters of recommendation to: **Stanley I. Rapoport, M.D., Chief, Laboratory of Neurosciences, National Institute on Aging, Bldg. 10, Room 6C103, 9000 Rockville Pike, Bethesda, MD 20892**

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POSITIONS OPEN

**ANIMAL VIROLOGIST AND
CELLULAR PHYSIOLOGIST**

The Department of Biology, Seton Hall University, invites applications for two anticipated tenure-track positions at the **ASSISTANT PROFESSOR** level for the fall of 1992. Applicants must have a Ph.D. and relevant postdoctoral experience. The animal virologist will have experience in cell culture and will be expected to teach undergraduate cell biology, microbiology, introductory biology and graduate virology. The cellular physiologist will be expected to teach undergraduate anatomy and physiology, introductory biology, and graduate physiology. Applicants are expected to maintain an active, independent research program. Send curriculum vitae, description of research interests and three references on or before 30 November 1991 to: **Chair, Search Committee, Department of Biology, Seton Hall University, South Orange, NJ 07079. Equal Opportunity/Affirmative Action Employer.**

**HARVARD UNIVERSITY
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ASSISTANT PROFESSOR OF
INORGANIC CHEMISTRY**

Applications are invited 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 their future research plans. *Harvard University is an Affirmative Action, Equal Opportunity Employer. Applications from women and minority group members are welcome.* Applications and supporting materials should be sent no later than 1 November 1991, to: **Professor Richard H. Holm, Department of Chemistry, Harvard University, 12 Oxford Street, Cambridge, MA 02138.**

**FACULTY POSITION
DEPARTMENT OF MICROBIOLOGY**

The Department of Microbiology at the University of Washington is seeking candidates for a tenure-track position, preferably at the **ASSISTANT PROFESSOR** level but more senior levels will also be considered. Candidates should be prepared to carry on an independent research program dealing with current problems in prokaryotic microbiology. Research areas of special interest include bacterial pathogenesis, microbial genetics, and bacterial physiology. The appointee will be expected to teach in undergraduate and graduate courses and supervise graduate students. Applicants should send curriculum vitae, a short statement of research interests and goals, and the names of three references to: **Dr. James J. Champoux, Prokaryotic Search Committee Department of Microbiology, SC-42, School of Medicine, University of Washington, Seattle, WA 98195. Deadline: 31 December 1991.**

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

**LAWRENCE UNIVERSITY
ASSISTANT PROFESSOR
MOLECULAR BIOLOGY**

Tenure-track position in the biology department of a small, high-quality liberal arts college. Duties include developing a course in modern molecular biology for undergraduate biology and chemistry majors, one or more courses in area of specialty, and supervision of undergraduate research. All department members contribute to the introductory biology course and to the freshman core program. Candidates with significant postdoctoral research experience will be given preference. A commitment to excellence in research-oriented undergraduate education is required. Substantial start-up funds are available for research and instructional equipment. Responsibilities will begin no later than fall term, 1992.

Applicants should send curriculum vitae, undergraduate transcripts, a brief description of research and teaching interests, and have three letters of reference sent to: **Dr. William J. Perreault, Chair, Biology Department, Lawrence University, Box 599, Appleton, WI 54912.** To insure consideration all application materials must arrive by 1 December 1991. *Lawrence University promotes Equal Opportunities for all.*

POSITIONS OPEN

**FACULTY POSITION
DEPARTMENT OF BIOCHEMISTRY
AND MOLECULAR BIOLOGY
SAINT LOUIS UNIVERSITY
SCHOOL OF MEDICINE**

Applications are invited for a tenure-track position involving research and teaching at the **ASSISTANT PROFESSOR** level, although outstanding candidates at a more senior level will be considered. We seek applicants who will complement ongoing research in the areas of metabolism and regulation, molecular and developmental biology, genetics, cell biology, and physical biochemistry and can participate in the multidisciplinary Cell and Molecular Biology Program at Saint Louis University School of Medicine. Of particular interest are individuals whose research would combine classical biochemistry and modern strategies in an innovative, independent program. Excellent start-up funds and salary are available. Curriculum vitae, description of research plans, and at least three letters of recommendation should be sent by 1 February 1992 to:

**Search Committee c/o Dr. William S. Sly, Chairman
E. A. Doisy Department of Biochemistry
and Molecular Biology
Saint Louis University School of Medicine
1402 South Grand Boulevard
Saint Louis, MO 63104-1079**

Saint Louis University is an Equal Opportunity/Affirmative Action Employer, M/F/V/H.

EVOLUTIONARY ECOLOGIST

The Department of Biological Sciences, Dartmouth College, invites applications for a tenure-track **ASSISTANT PROFESSOR** position in evolutionary ecology, to begin fall 1992. We seek applicants with strong foundations in evolutionary biology, whose research interests are at the population or community levels. Individuals with research specialties in co-evolution (e.g., plant-animal interactions), or dynamics and genetics of natural populations (including but not limited to rare or endangered species), are especially encouraged to apply. The successful candidate will be expected to establish a vigorous, externally funded research program and to teach at the undergraduate and graduate levels.

Ph.D., postdoctoral experience, and evidence of teaching excellence required. Submit curriculum vitae, statement of research and teaching interests, and three letters of reference to: **Ecology Search Committee, Department of Biological Sciences, Dartmouth College, 6044 Gilman, Hanover, NH 03755-3576. FAX: 603-646-1347.** Review of applications will begin 15 November 1991. *Dartmouth College is an Equal Opportunity/Affirmative Action Employer.*

VETERINARY BACTERIOLOGIST

Candidates are sought for a tenure-track position as **ASSISTANT PROFESSOR** of bacteriology. Appointment at a higher level may be possible. Applicants must have a Ph.D. and demonstrated evidence of research productivity. Curriculum vitae and the names and addresses of three references should be sent to: **Dr. R. J. Avery, Department of Microbiology, Immunology and Parasitology, College of Veterinary Medicine, Ithaca, NY 14853-6401. Telephone: 607-253-3400.** Screening of applications will begin immediately. *Cornell is an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR
DEPARTMENT OF ZOOLOGY
DUKE UNIVERSITY**

The Department of Zoology seeks applicants for a position in physiology or related fields. The appointment will be at the tenure-track assistant professor level, beginning in the fall of 1992. Applicants should have demonstrated outstanding ability in research. Teaching responsibility consists of a one-semester undergraduate course in principles of animal physiology, and an advanced course of the appointee's choice in the other semester. By 13 November 1991 send curriculum vitae, brief statements of research and teaching interests and experience, and the names and addresses of three references, to: **Dr. Vance Tucker, Chairman, Search Committee, Department of Zoology, Duke University, Durham, NC 27706. Duke University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

Anticipated position of **ASSISTANT PROFESSOR OF PHARMACOLOGY AND/OR PHYSIOLOGY**. Ph.D. or equivalent. Emphasis on teaching excellence. Responsibilities include instruction of medical students in pharmacology and/or physiology.

LABORATORY ASSISTANT. M.S. in physiology. Physiology background and computer literacy essential. Responsibilities include set-up, ordering supplies, demonstration, etc. for medical physiology laboratories. For both positions, send letter of professional goals, curriculum vitae, and names and addresses of three references to: **Dr. Gary O. Ballam, Head, Department of Physiology, The University of Health Sciences (UHS), College of Osteopathic Medicine, 2105 Independence Boulevard, Kansas City, MO 64124. Telephone: 816-283-2220. UHS is an Equal Opportunity/Affirmative Action Employer.**

**STAFF SCIENTIST
(EQUIVALENT TO ASSISTANT/
ASSOCIATE PROFESSOR)**

**SENIOR SCIENTIST
(EQUIVALENT TO FULL
PROFESSOR)**

**WEIS CENTER FOR RESEARCH
GEISINGER CLINIC**

We are seeking a cell biologist, biochemist or molecular biologist with an imaginative established research program related to mammalian cell physiology, growth, differentiation or development. The Weis Center is a fully equipped basic research facility currently staffed by approximately 50 scientists and support personnel. The research building was completed in May of 1987, and is designed to accommodate 20 separate laboratories. Scientists are provided with generous institutional funds for start-up, salaries, postdoctoral fellows, research technicians, supplies and equipment. The Geisinger Medical Center is located in an attractive rural setting in central Pennsylvania, within driving distance of New York City, Philadelphia, and Washington, D.C. It is affiliated with the Jefferson Medical College, and there are several colleges and universities nearby. Employment should begin on or before 1 July 1992. Applications will be accepted until the position is filled. Curriculum vitae, statement of research interests, and names of three references should be sent to: **Dr. Howard E. Morgan, Senior Vice President for Research, Weis Center for Research, Geisinger Clinic, Danville, PA 17822-2601. Equal Opportunity Employer, M/F/H/V.**

**CLEVELAND CLINIC FOUNDATION
RESEARCH INSTITUTE
DEPARTMENT OF CANCER BIOLOGY
STAFF POSITIONS IN
MOLECULAR GENETICS OF CANCER**

Applications are invited for scientist positions at the **ASSISTANT, ASSOCIATE or FULL PROFESSOR** levels in the Department of Cancer Biology. Successful applicants will be expected to establish an independent, competitive research program and develop collaborations with staff scientists and physicians. Preference will be given to candidates with an interest in molecular genetics of human cancers, using transgenic models for cancer or retrovirus or embryonic stem cell culture systems.

The Cleveland Clinic Research Institute, which consists of eight departments, comprising over 250 scientists including pre- and postdoctoral trainees, offers a stimulating research environment, excellent facilities and significant intramural support for establishing or relocating laboratories. These positions are accompanied by competitive salaries commensurate with level of seniority and excellent fringe benefits.

Send curriculum vitae and brief statement of research interests to:

**Bryan R. G. Williams, Ph.D.
Chairman
Department of Cancer Biology, NN1
Research Institute
Cleveland Clinic Foundation
9500 Euclid Avenue
Cleveland, OH 44195**

*The Cleveland Clinic Foundation is
an Equal Opportunity Employer.*

11 OCTOBER 1991



GLAXO INSTITUTE FOR MOLECULAR BIOLOGY

The Geneva research Institute of one of the world's most successful healthcare groups is offering a

POSTDOCTORAL FELLOWSHIP IN MOLECULAR AND CELLULAR IMMUNOLOGY

The project will focus on understanding the cellular and molecular events during T cell/B cell interaction that control immunoglobulin production. The ideal candidate will have significant experience in the establishment of human T cell clones and in the cloning of genes. Experience in the regulation of IgE synthesis would also be an advantage.

The Glaxo Institute for Molecular Biology carries out long term research to discover novel molecular mechanisms that could be targets for new effective medicines. It provides a dynamic international research environment, and encourages the publication of scientific results as well as collaborative projects with academic groups.

We offer an excellent salary and benefits package and opportunities for career development in one of the most attractive parts of Europe.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three referees to: Rita Gloor, Personnel Manager, GLAXO Institute for Molecular Biology S.A., 14, chemin des Aulx, Case Postale 674, 1228 Plan-les-Ouates, Geneva, Switzerland.

RESEARCH ASSOCIATE DNA SEQUENCING

Amgen has emerged as the recognized leader in the development of innovative human therapeutic products through applications of biotechnology. As a result of our continued growth, we have an excellent opportunity for a Research Associate in our DNA Sequencing Group.

Responsibilities for this position include DNA sequencing in support of on-going research and product development programs. Qualified applicants must have a Bachelor's or Master's degree in Molecular Biology, Biochemistry or a related discipline and a minimum of two years' experience in the di-deoxy chain termination method of DNA sequencing. Basic skills in Molecular Biology are also essential.

Amgen offers a stimulating and challenging research environment on the leading edge of biotechnology as well as an excellent compensation and benefits package including comprehensive relocation benefits. If you have the necessary qualifications and would like to be a part of an organization that places a high value on its human resources, please send a resume, in confidence, to:

AMGEN, INC.
Recruitment, Dept. #615
Amgen Center
Thousand Oaks
CA 91320-1789

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IOWA STATE UNIVERSITY

OF SCIENCE AND TECHNOLOGY

Provost

Iowa State University invites applications and nominations for the position of Provost. As the chief academic officer of the University, the Provost reports to the President.

Iowa State University is a comprehensive, land-grant research university located in Ames, a community of 50,000 people known for its exceptional quality of life. Iowa State has 25,000 students, 1,600 faculty members and an annual budget of approximately \$500 million. The University offers graduate, professional, and undergraduate degrees through its colleges of Agriculture, Business, Design, Education, Engineering, Family and Consumer Sciences, Liberal Arts and Sciences, Veterinary Medicine, and the Graduate College.

The Provost works closely with the President in providing overall leadership for the University. The Provost oversees the University's academic programs in teaching, research, and extension and the University Library, the Institute for Physical Research and Technology, the Ames Laboratory, and the Agriculture and Home Economics Experiment Station. The recruitment, hiring, and review of deans and directors are also among the Provost's responsibilities.

The successful applicant will have an outstanding record of scholarship, commitment to excellence in teaching, significant administrative experience, ability to manage a large and complex organization, commitment to the land-grant philosophy, and demonstrated commitment to equal opportunity and affirmative action.

Nominations and applications will be accepted until the position is filled. The Search Committee will begin its review about November 15, 1991. Send nominations or applications to:

Dr. M. Duane Enger, Chair
Provost Search Committee
Office of the President
117 Beardshear Hall
Iowa State University
Ames, Iowa 50011

Iowa State University is an equal opportunity/affirmative action employer and encourages the nomination and application of women and minority candidates.

POSITIONS OPEN

ASSISTANT PROFESSOR PHYSIOLOGY AND BIOPHYSICS

The Department of Physiology and Biophysics in the College of Medicine at the University of Nebraska Medical Center invites applications for a tenure-leading faculty position at the assistant professor level. Applicants should hold a doctoral degree and have completed at least 2 years of postdoctoral training. The department seeks an individual in the areas of microcirculatory control and/or endothelial cell-smooth muscle interactions, to complement ongoing research in these areas.

In addition to a strong research program, a commitment to teaching medical students, allied health students, and graduate students is required. The department will offer competitive salary commensurate with experience. Substantial set-up funds are also available. Applicants should send curriculum vitae with the names of three references by 30 November 1991, to:

Irving H. Zucker, Ph.D.
Professor and Chairman
Department of Physiology and Biophysics
University of Nebraska College of Medicine
600 South 42nd Street
Omaha, NE 68198-4575

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

MOLECULAR AND CELL BIOLOGY UNIVERSITY OF CALIFORNIA BERKELEY

The Department of Molecular and Cell Biology invites applications for the following tenure-track position with appointment beginning 1 July 1992. Candidates should have demonstrated excellence, originality, and productivity in research and should have a strong interest in undergraduate and graduate teaching.

STRUCTURAL BIOLOGY, ASSISTANT PROFESSOR, one of a series of positions to be filled in the next few years; research emphasis in the broad area of structural biology, including, for example, NMR studies of macromolecules, macromolecular interactions, protein folding, structure of membrane proteins, or membrane dynamics.

Applications should include a cover letter, curriculum vitae, a bibliography, a statement of research objectives and teaching interests, three letters of recommendation, and reprints of three representative publications. The closing date for acceptance of applications is 15 December 1991. Send applications to: **Structural Biology Search Committee, MCB Department, 401 Barker Hall, University of California, Berkeley, CA 94720.** Early applications are encouraged.

The University of California is an Affirmative Action/Equal Opportunity Employer. We especially invite women and underrepresented minorities to apply.

OHIO—ORAL BIOLOGY

Ohio State University (OSU) has a tenure-track position available at the rank of **ASSISTANT or ASSOCIATE PROFESSOR** in the Section of Oral Biology. This section emphasizes neurobiology and immunology as they relate to oral function. We are especially interested in applicants committed to applying contemporary biological techniques to problems of either nervous or immune systems. Individuals are expected to develop a fundable research program and participate in professional and graduate instruction. While D.D.S./Ph.D. education is desirable, Ph.D.'s are encouraged to apply. Send curriculum vitae and description of research plans to: **Dr. Keith E. Alley, 305 West 12th Avenue, Columbus, OH 43210.** OSU is an Equal Employment Opportunity/Affirmative Action Employer and encourages minorities and women to apply.

ECOSYSTEM ECOLOGY. Montana State University (MSU). **ASSOCIATE/ASSISTANT PROFESSOR**, tenure-track, 9-month research, teaching position begins August 1992. Required qualifications: Ph.D. in biology/ecology or related field; demonstrated expertise in ecosystem-level processes in natural and/or managed landscapes. Screening begins 16 December 1991. For complete description and application procedures call or write: **406-994-4549, Ecology Search Committee, Biology Department, MSU, Bozeman, MT 59717-0346.** Veteran preference. Affirmative Action/Equal Opportunity.

POSITIONS OPEN

ASSISTANT PROFESSOR. The Department of Biology, Illinois Benedictine College, has two tenure-track positions for fall 1992; Ph.D. required; 12 November 1991 deadline. The first position is for a **CELLULAR/MOLECULAR BIOLOGIST**; duties include: (1) teaching cell biology, molecular biology, and immunology, (2) heading the Molecular Biology Program, (3) directing some undergraduate research. The second position is for an **ECOLOGIST**; duties include: (1) teaching general ecology, microbiology, and a nonmajors environmental science course, (2) directing some undergraduate research. Send curriculum vitae, a copy of all transcripts and three letters of recommendation to: **Dr. Lawrence Kamin, Chairman, Search Committee, Illinois Benedictine College (IBC), 5700 College Road, Lisle, IL 60532. IBC is an Affirmative Action/Equal Opportunity Employer.**

GROSS ANATOMIST AND CELL BIOLOGIST

The Department of Anatomy, College of Medicine, University of Saskatchewan, Saskatoon, Canada, invites applications for two tenure-track faculty appointments at the rank of **ASSISTANT PROFESSOR**. One appointee will have teaching experience in medical gross anatomy and ideally neuroanatomy. A second appointee will participate in the cell biology and histology teaching programs of the department and preference will be given to candidates with broad experience in tissue culture methodology.

Applicants for both positions must have postdoctoral experience and progressive research programs in any area of the anatomical sciences. The successful candidates will be expected to actively contribute to graduate courses and training in their area of research specialty.

The appointments are subject to budgetary approval. *In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents. The University of Saskatchewan is committed to the principles of Employment Equity.*

An application, including curriculum vitae, names of three referees, and a statement of proposed research and previous teaching experience should be submitted by 31 December 1991 to:

Dr. G. D. Burkholder
Department of Anatomy
University of Saskatchewan
Saskatoon, Saskatchewan S7N 0W0
Canada

FACULTY POSITION IN VIROLOGY. The Department of Immunology/Microbiology at Rush Medical College invites applications for a faculty position at the level of **ASSISTANT or ASSOCIATE PROFESSOR**. Applicants must hold a Ph.D. and have postdoctoral training in virology. Preference will be given to applicants with active research programs in retrovirology, but outstanding candidates in other areas of virology will also be considered. The department has an active graduate program and vigorous research groups in molecular virology, immunology and HIV immunology. Rush Medical College is part of a large teaching hospital/medical center which includes a major emphasis on the treatment and study of HIV-infected individuals. Salary and academic rank will be dependent upon experience and qualifications. Please send résumé with a description of research interests and three letters of recommendation by 1 December 1992 to:

Mark Peeples, Ph.D.
Recruiting Committee
Department of Immunology/Microbiology
Rush Medical College
1653 West Congress Parkway
Chicago, IL 60612

Rush is an Equal Opportunity/Affirmative Action Employer.

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Science New Lab Service Department
1333 H Street, NW
Washington, DC 20005

NEUROSCIENTIST



Support New Areas Of Growth With Your Strong Neuroscience Background

Hoechst-Roussel Pharmaceuticals Inc., an innovative and fast-growing subsidiary of Fortune 100 Hoechst Celanese, has an exciting opportunity available for a knowledgeable Pharmacologist at its Bridgewater, NJ facility.

In this challenging role, you'll be responsible for conducting and analyzing preclinical experiments with the goal of discovering novel therapeutic agents for the treatment of Alzheimer's disease.

To qualify, you'll need a BS and 3-5 yrs. of experience, or an MS degree in a Neuroscience related field. Knowledge of and experience in behavioral pharmacology, stereotaxic lesions, and neurohistology are essential. Computer proficiency utilizing graphical and statistical analysis will be a plus.

In the pleasant suburban setting of our modern corporate complex you'll enjoy an excellent salary with a flexible benefits program, on-site fitness center, and a 401(k) savings plan. For prompt consideration, please send your resume with salary history/requirements to: Steven Scott, Section 31-35, Hoechst-Roussel Pharmaceuticals Inc., Routes 202-206, P.O. Box 2500, Somerville, NJ 08876-1258. An affirmative action employer M/F/H/V.

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Bristol-Myers Squibb Pharmaceutical Research Institute

Bristol-Myers Squibb is a world renowned pharmaceutical company dedicated to the progression of scientific research. We are seeking individuals to help expand our understanding of cardiovascular, infectious and metabolic diseases.

NMR RESEARCH INVESTIGATOR

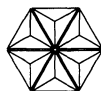
This individual should be interested in pioneering the application of state-of-the-art NMR methodology to structural problems encountered in drug design. The potential scope of this research will most likely include the study of bound-state ligand conformations in ligand/receptor and substrate/enzyme complexes to guide synthetic chemistry efforts.

The successful candidate will collaborate with molecular biologists, physical scientists, the computer-aided drug design group, and medicinal chemists to prototype and study models in mechanism-based drug discovery programs. Publication of the results of this work is expected and encouraged. Candidates should have a Ph.D. in Chemistry (preferably physical or biophysical chemistry) and 0-2 years postdoctoral experience. Candidates with a strong background in NMR relaxation theory and practice, and with experience in heteronuclear and isotope-edited spectroscopy will be preferred. **Dept. 249A-BM.**

PH.D. RESEARCH INVESTIGATOR Microbial Molecular Biology

This position will join the yeast Molecular Genetics Group in the Department of Microbial Molecular Biology. The particular emphasis will be on the expression of mammalian genes in the yeast, with the goal of developing natural products screens for discovery of novel therapeutic agents. A Ph.D. and 0-2 years of experience are required. A knowledge of recombinant DNA technology and yeast molecular biology is essential. Preference will be given to candidates with experience in the area of gene expression in *Schizosaccharomyces pombe*. **Dept. 249B-AR.**

Please forward your resume (including Dept. code) to: **Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources, P.O. Box 4000, Princeton, NJ 08543-4000.** An equal opportunity employer.



Bristol-Myers Squibb Company

POSITIONS OPEN

MOLECULAR POPULATION BIOLOGIST. ASSISTANT or ASSOCIATE PROFESSOR, tenure-track position to begin August 1992. We seek an evolutionary biologist using molecular techniques to address population level questions. Teaching responsibilities will complement the needs of the department, and will include a course in the candidate's area of specialization. Applicants must establish a vigorous research and graduate program. Ph.D. required; postdoctoral experience desirable. Send curriculum vitae, statement of teaching and research interests, selected reprints and three letters of reference to: **Dr. John La Duke, Molecular Population Biologist Search Committee, Department of Biology, University of North Dakota (UND), Grand Forks, ND 58202-8238.** Review of applications will begin 8 November 1991. *UND is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITIONS

The Department of Microbiology and Immunology at the Medical University of South Carolina, College of Medicine, invites applications for tenure-track positions at the **ASSISTANT/ASSOCIATE PROFESSOR** level. Applicants should have a relevant doctoral degree, and a background in either microbiology or virology with experience in molecular biology. Successful candidates may participate in the teaching of medical, dental or graduate students, but the major requirement will be the desire to undertake a vigorous independent research program in a relevant area, and associate professors should have established, independent funding. Applicants should send curriculum vitae, a brief summary of ongoing research interests and future research plans, and the names of three references to: **Dr. Gabriel Virella, Department of Microbiology and Immunology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.** *An Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION ASSOCIATE PROFESSOR/PROFESSOR

The Departments of Physiology/Biophysics and Pediatrics at the University of California, Irvine, are currently seeking applicants for a joint tenure-track position under the auspices of the Physician-Scientist Program. Candidates are required to have an M.D. degree and Board certification in medical genetics. Preference will be given to candidates possessing, in addition, a Ph.D. degree or a strong background in basic science research.

We are seeking a colleague who will be able to develop a dynamic research program at the leading edge of molecular medicine. A proven track record of expertise in the disciplines of molecular biology, molecular genetics, and membrane transport systems is highly desirable. Candidates should demonstrate a history of generating extramural funding.

The successful candidate is expected to teach medical and graduate students, in addition to providing patient care at the university's clinical facilities. Rank and salary will be determined based on qualifications and experience in accordance with university scales.

The position is available mid-1992; applications must be received by 8 November 1991. Send letter of application, statement of research interests, curriculum vitae and the names of three references to:

**Michael D. Cahalan, Ph.D.
Professor and Chair**

**Department of Physiology and Biophysics
University of California, Irvine
Irvine, CA 92717**

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

RESEARCH ASSISTANT PROFESSOR. Teach medical immunology/immunogenetics and perform research related to the development of the human immune repertoire. Research prenatal as well as postnatal individuals and sample various immunologic compartments from nearly the point of birth to 6 years of age.

Requires M.D. degree and at least 3 years of postdoctoral experience in immunogenetics/molecular biology. Requires background in EBV transformation, polymerase chain reaction, DNA cloning and sequencing, and idiotype analysis.

Send curriculum vitae and cover letter to: **J. Donald Capra, M.D., Department of Microbiology, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9048.**

POSITIONS OPEN

MOLECULAR/CELLULAR BIOLOGY FACULTY POSITION UNIVERSITY OF MISSOURI-KANSAS CITY

Applications are invited for an **ASSISTANT or ASSOCIATE PROFESSOR** in the School of Basic Life Sciences at the University of Missouri-Kansas City. The successful candidate will be expected to have several years of postdoctoral experience with strong research credentials to be able to develop a strong research program in, but not limited to, any of the following areas: signal transduction mechanisms, molecular genetics and gene expression, regulation mechanism in eukaryotes, molecular mechanisms of sensory perception and microscopy/image analysis. Preference will be given to candidates intending to apply their research to the understanding of basic molecular mechanisms of cellular aging. Duties include teaching at the graduate level and for the health sciences professions, and training of graduate and postdoctoral students. Competitive salaries, start-up funds, laboratory space and associated research facilities are available in an emerging academic unit developing a major program in molecular recognition, including molecular basis of sensory perception and aging. This faculty addition will complement the 20 new faculty members hired in the last 5 years for the center of eminence in basic life sciences. Applications, including curriculum vitae and a minimum one-page description of future research, as well as three letters of recommendation, should be sent to: **M. Martinez-Carrion, Dean, School of Basic Life Sciences, University of Missouri-Kansas City, Kansas City, MO 64110.**

Applications will be analyzed beginning 1 December 1991 and will continue to be screened until a suitable candidate is found. *The university is an Affirmative Action, Equal Opportunity Employer.*

PLANT MOLECULAR GENETICIST

The Department of Biology at Washington University is seeking a Plant Molecular Geneticist for a tenure-track or tenured faculty position at the rank of **ASSISTANT, ASSOCIATE, or FULL PROFESSOR.** Areas of interest include, but are not limited to, molecular/genetic analysis of plant development, hormone/stress responsiveness, host/pathogen interactions, and carbon/nitrogen metabolism. Applicants should send curriculum vitae and a statement of research and teaching interests, and arrange for three letters of references to be sent to: **Dr. Ursula Goodenough, Chair, Plant Molecular Geneticist Search Committee, Department of Biology, Washington University, St. Louis, MO 63130-4899.** *Washington University is an Equal Opportunity/Affirmative Action Employer.*

ANATOMY AND PHYSIOLOGY KANSAS STATE UNIVERSITY (KSU) COLLEGE OF VETERINARY MEDICINE

The Department of Anatomy and Physiology invites applications for two faculty positions with appointments beginning 1 July 1992. Candidates should have a funded extramural research program or have an established research program with considerable potential for securing funding. Research areas of emphasis within the department include cell biology, exercise physiology and neurobiology.

PHARMACOLOGY. ASSISTANT/ASSOCIATE PROFESSOR, tenure-track position. Candidates should have a broad background in pharmacology and a strong interest in professional and graduate instruction. Preference will be given to individuals with a background in veterinary pharmacology. D.V.M. and/or Ph.D. required.

PHYSIOLOGICAL CHEMISTRY. ASSISTANT PROFESSOR, tenure-track position. Candidates should have a strong interest in professional and graduate instruction and a background in intermediary metabolism. D.V.M. and/or Ph.D. required.

Applications should include a cover letter indicating the position being applied for, curriculum vitae, a statement of research and teaching interest, three letters of recommendation and reprints of three representative publications. Applications will be received until positions are filled. Send applications to: **Dr. Jon D. Dunn, Professor and Department Head, Department of Anatomy and Physiology, VMS 228, Kansas State University, Manhattan, KS 66506.** *KSU is an Equal Opportunity Employer/Affirmative Action Employer.*

POSITIONS OPEN

BIOCHEMISTRY/MOLECULAR BIOLOGY FACULTY POSITION UNIVERSITY OF MISSOURI-KANSAS CITY

Applications are invited for an **ASSISTANT or ASSOCIATE PROFESSOR** in the School of Basic Life Sciences at the University of Missouri-Kansas City. The successful candidate will be expected to have several years of postdoctoral experience with strong research credentials to be able to develop a strong research program in x-ray crystallography of macromolecules and macromolecular complexes. Duties include teaching at the graduate level and for the health sciences professions and training of graduate and postdoctoral students. Competitive salaries, start-up funds, laboratory space and associated research facilities are available in an emerging academic unit developing a major program in molecular recognition including molecular basis of sensory perception and aging. This faculty addition will complement the 20 new faculty members hired in the last 5 years for the program of eminence in basic life sciences. Applications, including curriculum vitae and a minimum one-page description of future research, as well as three letters of recommendation, should be sent to: **M. Martinez-Carrion, Dean, School of Basic Life Sciences, University of Missouri-Kansas City, Kansas City, MO 64110.**

Applications will be analyzed beginning 1 December 1991 and will continue to be screened until a suitable candidate is found. *The university is an Affirmative Action, Equal Opportunity Employer.*

FACULTY POSITION—ASSISTANT, ASSOCIATE OR FULL PROFESSOR. The Chemistry Department, Wayne State University, is seeking an outstanding individual with research interests in a contemporary area of biological chemistry. The appointment may be at any professional level and either tenured or tenure track. A senior candidate should have a strong record of attracting extramural funding, an excellent publication record and considerable stature in the field. Junior candidates should be able to demonstrate a high potential for developing a successful research program. All candidates should exhibit the capability of being excellent teachers at both the undergraduate and graduate levels. *Women and members of minority groups are encouraged to apply.* The department is housed in a modern research building and is very well equipped including core facilities for oligonucleotide synthesis and automated DNA sequencing, fermentation, NMR, mass spectrometry, molecular modeling, and x-ray crystallography. Collaborative interactions with the adjacent Medical School faculty and the Detroit Medical Center are facile and convenient, as are interactions with the Center for Molecular Biology, Center for Chemical Toxicology and the Comprehensive Cancer Center. Send curriculum vitae, research goals and interests, letters of recommendation, and other pertinent information to: **Dr. Richard L. Lintvedt, Chairman, Department of Chemistry, Wayne State University, Detroit, MI 48202.** *Wayne State University is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS IN NEUROSCIENCE

Two **ASSISTANT/ASSOCIATE PROFESSOR** positions in neuroscience are available, Department of Anatomy, Louisiana State University Medical Center (LSUMC), New Orleans. A Ph.D. and 2 to 3 years of postdoctoral experience are required. Applicants must have an outstanding funding record/potential. Salary levels are competitive, with ample space and start-up funds. Joint appointments in the Neuroscience or LSU Eye Centers are encouraged. Send curriculum vitae, research interests, and names of three references to: **Dr. R. Ranney Mize, Department of Anatomy, LSUMC, 1901 Perdido Street, New Orleans, LA 70112-1393.** *LSUMC is an Equal Opportunity/Affirmative Action Employer.*

ASSOCIATE DIRECTOR OF RESEARCH. UCLA-affiliated GRECC at Sepulveda Veterans Administration Medical Center (VAMC) is seeking M.D. or Ph.D. with investigative interests in aging using techniques of molecular biology. Applicants must qualify for rank of associate or full professor at UCLA. Excellent opportunity to establish a strong research team with additional funded positions, space, and resources. *Sepulveda VAMC is an Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae and inquiries to **Dr. Edward J. Weinman, Chief, Medical Service (111), Sepulveda VAMC, 16111 Plummer Street, Sepulveda, CA 91343.**

SANDOZ PHARMA LTD.,

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to join an established osteology group studying the development and function of bone cells. The successful candidate will be given charge of a research laboratory.

Sandoz Pharma Ltd. offers a scientifically attractive environment, well-equipped laboratories and opportunities for publishing results and presenting them at international meetings. A "flexitime" system is in operation, allowing considerable personal freedom in choosing working hours.

Applications, which will be treated in strictest confidence, should be in writing and include a curriculum vitae and a list of publications. They should be addressed to:

Sandoz Pharma Ltd.
Personnel Department, Ref. 1430
P.O. Box
CH-4002 Basle, Switzerland



SANDOZ



CHIEF EXECUTIVE OFFICERS

New Zealand Crown Research Institutes

The New Zealand Government is establishing ten Crown-owned research companies incorporating the world class activities of the existing Department of Scientific & Industrial Research (DSIR), Ministry of Agriculture & Fisheries Technology Division, Forest Research Institute, the Meteorological Service and the Communicable Diseases Centre.

Crown Research Institutes (CRI's) are being established in the following areas:

- | | |
|----------------------------|---|
| • Pastoral Agriculture | • Environmental Health & Forensic Science |
| • Horticultural Products | • Land Environments |
| • Field Crop Products | • Atmosphere & Water |
| • Forestry & Wood Products | • Geosphere |
| • Industry Development | • Human Resources |

A Board of Directors is being appointed for each company and in turn each Board will be appointing a Chief Executive Officer. **On behalf of the Steering Committee overseeing CRI Implementation, we are now seeking expressions of interest from, and nominations of, suitably qualified persons for the position of Chief Executive for each of the ten CRI's.** Boards may make their appointments from these expressions of interest.

Applicants for the positions of Chief Executive will need to demonstrate that they have the capability to manage substantial businesses involved in the production of scientific outputs. In addition, they should understand the requirements of leading and managing a research and development company charged with not only identifying and addressing research opportunities in a competitive environment but also successfully transferring the resulting technology to end-users.

Remuneration for these positions will reflect the special character of the companies. Specific terms of appointment including relocation expenses where necessary, will be negotiated between the appointees and the respective Boards of Directors.

Expressions of interest (which should be accompanied by a detailed Curriculum Vitae) or nominations for one or more of the positions of Chief Executive should be addressed to Colin Evans, Managing Director, Wareham Associates (NZ) Ltd, PO Box 47-295, Auckland, New Zealand or Fax 64-9-780-075 and received no later than 25 October 1991. Telephone enquiries are welcome on 64-9-788-937.

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Appraisal Firm**

ASSOCIATE SCIENTIST *Fermentation*

The recent opening of the new Glaxo Inc. Girolami Research Institute, located in **Research Triangle Park, NC**, represents Glaxo's continued commitment to the discovery and development of drugs for unmet patients needs. We invite you to experience the challenges and accomplishments a future with us holds for you.

We are currently expanding the capacity of our Fermentation Facility to include the scale-up of recombinant organisms for the production of heterologous proteins. A position has been created for an Associate Scientist who will be responsible for the daily operations and maintenance of this facility.

Background should include a BS/MS in Microbiology or Chemical Engineering with a minimum of 2-4 years of relevant experience. Specific experience with sterile technique, recombinant technology, and the operation and maintenance of fermentation and/or bioreactor equipment is required. Working knowledge of computer technology is desired.

Join Glaxo and enjoy an excellent salary, flexible benefits, an on-site fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction. Equally appealing is our world-famous scientific, industrial and academic community in Research Triangle Park, NC. Interested and qualified applicants are invited to forward your resume, including salary history, to: **Human Resources Department, Job # 9126B106-SC, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709.** (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/H/V.

Glaxo Inc.



DEPARTMENT OF PHARMACOLOGICAL AND PHYSIOLOGICAL SCIENCE

Saint Louis University Medical Center

Applications are invited for faculty positions in the Department of Pharmacological and Physiological Science at Saint Louis University Medical Center. Positions are tenure track appointments at the Assistant or Associate Professor level. We offer an environment rich in senior level scientific experience, start up funds, laboratory space and a record of highly successful and continuing extramural research funding. Preference will be given, but not restricted, to individuals with demonstrated experience in the application of molecular biology to research in the nervous, cardiovascular and endocrine systems. Interested persons should send a curriculum vitae, three letters of reference and a description of research interests and objectives to:

Dr. Thomas C. Westfall
Professor and William Beaumont Chair
Department of Pharmacological and
Physiological Science
Saint Louis University Medical Center
1402 South Grand Boulevard
St. Louis, MO 63104

Saint Louis University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

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NEW YORK TIMES

Development Chemists DNA Probe Assay

Molecular Devices develops and manufactures bio-analytical instrumentation and bio-sensor systems. We are seeking Development Chemists to develop DNA probe-based assays for use on a sensor-based instrument.

You will develop assays for the detection of amplified DNA products. Responsibilities include defining probe sequences, increasing sensitivity, and defining hybridization conditions for reproducible protocols.

We require 5 years of experience in assay development, preferably probe assay development, and a strong working knowledge of DNA hybridization techniques. An MS or PhD in molecular biology or a related field is preferred.

Molecular Devices offers a competitive compensation and benefits package. Please send your resume to Molecular Devices Corporation, Attn: Dr. Wallace Parce, 4700 Bohannon Drive, Menlo Park, CA 94025. Principals only, please. EOE.

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PHARMACEUTICAL RESEARCH

Merck Sharp and Dohme Research Laboratories, a worldwide leader in pharmaceutical research, has a position open within the Animal and Exploratory Drug Metabolism Department. In this position, you will participate in NMR spectroscopic and MRI studies of disease models and the effects of xenobiotics. Your responsibilities will also include sharing management of SUN workstations and PC's, venipuncture and mastering advanced physiological preparations.

A B.S./M.S. in biochemistry, computer science, physiology or equivalent is required. Experience in biochemical procedures and analytical instrumentation is necessary. A strong background in workstation/PC's and knowledge of UNIX is desirable. Excellent oral and written communication skills and organizational skills are required.

Merck Sharp and Dohme Research Laboratories is located in Rahway, New Jersey approximately 25 miles from New York City. Our salaries, benefits and growth potential are excellent. For consideration, send your resume with the names of three references to **Human Resources Manager, Merck & Co., Inc., P.O. Box 2000, AD # 96, Rahway, New Jersey 07065, RY80-A3.**

Equal Opportunity Employer M/F/V/H



Merck & Co., Inc.



GEORGIA STATE UNIVERSITY PRESIDENT

The Board of Regents of the University System of Georgia invites nominations and applications for the position of President at Georgia State University to take office on July 1, 1992.

Georgia State University, a public urban university in downtown Atlanta, serves a diverse student body of about 33,000 degree-seeking students annually; 23,000 quarterly. Approximately 30 percent are graduate students; 24 percent are minority students. The average age of students is 28. The following six colleges of the university offer more than 50 degrees and 250 majors.

- Arts and Sciences
- Education
- Law
- Business Administration
- Health Sciences
- Public and Urban Affairs

The university has nationally recognized programs and research efforts in such disciplines as astrophysics, biological and chemical sciences, business administration, physical therapy, psychology, and public administration. Through its many academic and service programs, Georgia State is a major partner in the Atlanta business, civic, education, governmental, health care and legal communities.

Desirable characteristics of the successful candidate include:

- a distinguished record of accomplishments in teaching, research and administration in higher education or a distinguished record of executive-level accomplishments with a clear understanding of the importance of the teaching, research and service missions in higher education.
- a doctorate or appropriate terminal degree.
- a demonstrated ability to work as a respected leader and colleague with a diverse student body, faculty, staff and urban community.
- a demonstrated commitment to affirmative action and minority issues.

Nominations should include the nominee's current address. Applications should include a letter of interest, a curriculum vitae and the names and addresses of five persons who can serve as references.

Review of applications will begin on November 1, 1991. Nominations and applications will be accepted until a final recommendation is made. All nominations and applications should be addressed to:

Dr. H. Dean Propst, Chancellor
University System of Georgia • 244 Washington Street, S.W.
Atlanta, Georgia 30334 • Fax: 404/651-9301

Names of nominees and applicants, résumés and other general non-evaluative information will be open to public inspection under Georgia law.

Georgia State University, a unit of the University System of Georgia, is an equal opportunity educational institution and is an equal opportunity/affirmative action employer.

POSTDOCTORAL POSITION (NIH) AIDS RESEARCH

Interaction of HIV Envelope Glycoprotein
with its Receptor, CD4

Projects: 1) Biochemical and biophysical studies of receptor-induced structural changes related to virus/cell fusion. Design, expression and analysis of recombinant wild type and mutant receptor proteins, predominantly using vaccinia vectors [PNAS (1991) **88**, 8082]; 2) Novel CD4-based antiviral agents, including recombinant CD4-toxin chimeric proteins targeted to kill HIV-infected cells [PNAS (1990) **87**, 8889].

Position available immediately; later starting dates considered. Funded by National Research Council fellowship; starting salary \$29,000 - \$35,000. Location: 9000 Rockville Pike, Bethesda, Maryland. Experience in molecular biology, protein chemistry, membrane biochemistry or virology helpful but not required. Diversified opportunities for collaboration. Send CV and names of 3 references to:

Edward A. Berger, Ph.D.
Laboratory of Viral Diseases, NIAID
National Institutes of Health
9000 Rockville Pike
Bldg. 4, Room 229
Bethesda, MD 20892
Phone: 301/402-2160
Fax: 301/480-1147



U.S. Citizenship Required
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Postdoctoral Scientist

The Medical Research Division of American Cyanamid has an immediate opening for a Postdoctoral fellow to study structure-function relationships in voltage- and ligand-gated potassium channels.

The successful applicant will be part of an integrated team with research directed towards the design of novel pharmaceuticals for a broad range of applications. Candidate should have 0-3 years postdoctoral training, with a strong background in standard molecular biology techniques including sub-cloning, DNA sequencing, Northern and Southern analysis, and *in vitro* transcription.

Located at the Lederle Laboratories campus of American Cyanamid in Pearl River, New York, just 25 miles north of New York City, you'll enjoy a competitive salary and comprehensive benefits. For consideration, please send your resume with salary history to:



Professional Employment Office,
Dept. PS, Lederle Laboratories,
401 N. Middletown Road, Pearl River, NY
10965. An Equal Opportunity Employer M/F.

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POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR

The Department of Microbiology and Molecular Genetics at the University of Medicine and Dentistry-New Jersey Medical School is seeking outstanding scientists (Ph.D. or M.D.) for tenure-track ASSISTANT or ASSOCIATE PROFESSORSHIPS. Successful applicants will be expected to establish a strong basic research program and to participate in medical and graduate school teaching. The department is located in a large medical complex, has excellent facilities, and a vigorous interactive faculty. We are interested in candidates investigating any aspect of molecular genetics. In addition, those investigating the molecular basis of microbial or viral pathogenesis are encouraged to apply.

Send curriculum vitae, a statement of research interests and names and addresses of three references to: Dr. Lynn S. Ripley, Faculty Search Committee, Department of Microbiology and Molecular Genetics (B), UMD-New Jersey Medical School, 185 South Orange Avenue, Newark, NJ 07103-2714.

UMDNJ is an Affirmative Action Equal Opportunity Employer, M/F/H/V, and is member of the University Health System of New Jersey.

ACADEMIC DIRECTOR OF ARTS AND SCIENCES

Arizona State University West seeks a senior academic administrator for Arts and Sciences Programs. Qualifications are: an earned Ph.D. or other terminal degree in a discipline tenurable in one of the programs of the Arts and Sciences at the West Campus; a record of scholarly/artistic and teaching excellence appropriate for a senior faculty appointment; a record of support for cultural diversity and faculty governance; 3 years of academic administrative experience in budget, personnel, program development, and curriculum. Desired: administrative experience in a state university. A letter of nomination or application, curriculum vitae, and the telephone numbers and addresses of three references should be sent to: Carol Mueller, Chair, Arts and Sciences Director Search Committee, Arts and Sciences, Arizona State University West, P.O. Box 37100, Phoenix, AZ 85069-7100. Applications must be received by 15 November 1991 or by the 15th of each succeeding month until the position is filled. Questions regarding the position may be directed to Professor Carol Mueller, telephone: 602-543-6000.

DIRECTOR BLACK ROCK FOREST PRESERVE

The Black Rock Forest is a 3600-acre wilderness preserve located in Orange County, New York, just 50 miles north of the New York City line. Although physically close to the city, Black Rock Forest is remote, with ponds, brooks, lakes, nature trails, wetlands, and wildlife. A forest director and manager maintain the forest, plan programs and guide and supervise users. The facility is administered by the Black Rock Forest Consortium, a group of 14 private and public, educational and research institutions, whose mission is to maintain the environment of the forest and promote its resources for scientific and educational endeavors.

The Director of the Black Rock Forest should be a skilled scientist/educator committed to preserving the forest, pursuing both its scientific and educational goals and raising external funds. Opportunities may exist for formal affiliation with institutional members of the Black Rock Forest Consortium.

Résumés and inquiries should be sent no later than 1 December 1991 to:

Search Committee
Black Rock Forest
Box 483, Continental Road
Cornwall, NY 12518

The appointment will commence no later than 1 July 1992. Competitive salary and benefits will be commensurate with previous experience. *The Black Rock Forest is an Equal Opportunity Employer.*

The Black Rock Forest Consortium: American Museum of Natural History, Barnard College, Brookhaven National Laboratory, Brooklyn Botanic Garden, City College, CUNY, Columbia University, Dalton School, Friends Seminary, Lehman College, CUNY, New York Academy of Sciences, New York University, Newburgh Enlarged City School District, Storm King School, United Nations International School.

POSITIONS OPEN

DEPARTMENT HEAD DEPARTMENT OF PHYSICS THE UNIVERSITY OF ILLINOIS AT CHICAGO (UIC)

The Department of Physics at the University of Illinois at Chicago is seeking well-qualified applicants for the position of department head. The department has major experimental and theoretical research programs in high energy, condensed matter, nuclear and laser physics. The Department has 27 faculty and over 80 graduate students, as well as collaborative programs with Fermi and Argonne National Laboratories. UIC, located in the heart of Chicago, is a research university with 16,000 undergraduate, 5,000 graduate, and 3,000 professional students. The department head is the chief administrative officer with responsibilities for the instructional programs of the department, administrative, budgetary and promotion decisions, and for providing leadership in the development of research, teaching and public service. A candidate should be eligible for appointment as a full professor and have a strong record in research and university teaching, as well as have demonstrated leadership and organizational skills. The desired appointment date is 21 August 1992. Applications should be received by 1 December 1991 to receive full consideration, although the search will proceed until the position is filled. Applications must include full curriculum vitae and names, addresses and telephone numbers of four references. Applications and nominations should be sent to: Dr. Jean-Pierre Faurie, Search Committee for Department Head, Department of Physics, m/o 273, The University of Illinois at Chicago, Box 4348, Chicago, IL 60680. UIC is an Affirmative Action/Equal Opportunity Employer.

The University of Adelaide South Australia invites applications from both women and men for a COMPARATIVE PHYSIOLOGIST (Limited-Term Lecturer Level B) available for 3 years from 1 February 1992 in the Department of Zoology. The successful applicant should have or be about to complete a Ph.D. or equivalent qualification, and be able to teach introductory animal physiology and to contribute to part of a course on practical biological statistics. Further information concerning the duties of the position and selection criteria should be obtained from Professor W. D. Williams, Head of the Department of Zoology, telephone: (61 8) 228-5847, Facsimile (61 8) 223-5817. Annual salary (interim salary scale): AU\$38,500 x 7 AU\$46,000. Applications in duplicate quoting reference number 4167, giving personal particulars (including whether candidates hold Australian permanent residency status), details of academic qualifications and names and addresses of three referees should reach the Director, Personnel Services, University of Adelaide, GPO Box 498, Adelaide, South Australia 5001, Telex UNIVAD AA 89141, Facsimile (61 8) 223-4820 not later than 15 November 1991. *The University is an Equal Opportunity Employer.*

MOLECULAR NEUROIMMUNOLOGY ASSOCIATE MEMBER (C3, WITH TENURE)

KAX-PLANCK-INSTITUT (MPI) FÜR PSYCHIATRIE, MUNICH, FRG

The Department of Neuroimmunology is committed to research into cellular and molecular interactions between the immune system and the nervous system.

We are seeking a younger molecular biologist with recognized achievements in developmental, neuro- or immunobiology. The successful candidate will be expected to contribute to our current research programs, and, in addition, to develop independent projects within the context of the department. Particular consideration will be given to researchers using and developing innovative approaches in molecular biology and "reverse genetics."

The position corresponds to the rank of an Associate Professor (C3) at German Universities, and can be tenured. *German citizenship is not required.*

Applicants should include a summary of their previous achievements and an outline of their planned research program, curriculum vitae, names and addresses of referees, together with a list, and reprints of their most significant publications.

Please submit applications to: Härtmut Wekerle, M.D., Department of Neuroimmunology, MPI für Psychiatrie, D-8033 Martinsried, Germany. Telephone: (89) 8578 3551; FAX: (89) 8578 3790.

POSITIONS OPEN

DISTINGUISHED CHAIR WHEAT BREEDING

Washington State University (WSU) announces the O. A. Vogel Distinguished Chair in Wheat Breeding. The incumbent for this prestigious, endowed position will provide research and education leadership for an interdisciplinary team whose goals are development of new wheat cultivars and new wheat improvement technology. Ph.D. in plant breeding, genetics or a closely related field and leadership of an internationally recognized crop improvement program are essential. Interested persons should contact: Dr. D. G. Miller, Chair, Department of Crop and Soil Sciences, Washington State University, Pullman, WA 99164-6420. Telephone: 509-335-3471. Nominations are invited. Selection begins 20 January 1992. Position available 1 June 1992. *WSU is an Equal Opportunity/Affirmative Action Educator and Employer; protected group members encouraged to apply.*

DIRECTOR CENTER FOR THE ANALYSIS OF ENVIRONMENTAL CHANGE (CAEC)

We are seeking an individual to provide leadership and administrative oversight for CAEC, a research center formed cooperatively by Oregon State University (OSU); the Pacific Northwest Experiment Station of the U.S. Forest Service; the Environmental Research Laboratory-Corvallis, U.S. Environmental Protection Agency; and Battelle, Pacific N.W. Laboratories. CAEC serves as the focal point for the development of long-term, multidisciplinary research programs pertaining to environmental change. The director works closely with associate directors from each of the participating institutions and reports administratively to the Dean of Research, OSU.

The director will be appointed to the OSU faculty at the rank of professor. He or she must be qualified for tenure in an appropriate department at OSU. The position is a 12-month appointment, 1.0 FTE, with a 9-month indefinite tenure commitment. Salary will be commensurate with experience and qualifications.

Applicants should submit a letter of interest and a résumé along with the names, addresses, telephone and FAX numbers of four references. References will be contacted only with the consent of the candidate. Closing date for nominations is 15 November 1991; closing date for applications is 1 December 1991. The position is available 1 February 1992.

Nominations and applications should be directed to:

Dr. Richard A. Scanlan
Dean of Research
AdS A312
Oregon State University
Corvallis, OR 97331-2140
Telephone: 503-737-0663

OSU is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to dual-career needs.

PHARMACOLOGY

Southeastern University of the Health Sciences (SEUHS) has two pharmacology, 12-month positions available. Both require teaching of pharmacology to optometry, pharmacy, and osteopathic medical students, and participating in university committees. Appointments are ASSISTANT PROFESSOR and ASSOCIATE PROFESSOR/DEPARTMENT HEAD. Department head will be responsible for managing Department of Pharmacology. Letter of application, complete résumé, and three letters of reference should be sent to: Harold E. Laubach, Ph.D., Associate Dean for Basic Sciences, SEUHS, 1750 Northeast 168th Street, North Miami Beach, FL 33162. SEUHS is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION IN MOLECULAR BIOPHYSICS/BIOCHEMISTRY investigating the mechanisms of molecular motor enzymes such as RNA polymerases and kinesin. Projects use novel light microscope image processing techniques [see: *Nature* 352, 444 (1991)] that directly monitor the operation of single enzyme molecules. Send curriculum vitae, statement of research interests, and the names of three references to: Dr. Jeff Gelles, Graduate Department of Biochemistry, Brandeis University, Waltham, MA 02254-9110. FAX: 617-736-2349. *An Equal Opportunity/Affirmative Action Employer.*

SANDOZ RESEARCH INSTITUTE

BE AT THE FOREFRONT OF
IMPORTANT NEW DRUG DISCOVERIES

Innovative research at Sandoz has been enhancing medicine around the world for over 100 years—improving the quality of life for countless individuals and revolutionizing scientific concepts. Sandoz Research Institute, the U.S. pharmaceutical R & D division of Sandoz, Ltd., currently seeks qualified professionals for the following openings in Preclinical Research.

MOLECULAR BIOLOGIST

Ph.D. in Molecular Biology or a closely related discipline and a minimum of 2 years of postdoctoral research experience in molecular biology, preferably with an emphasis on the regulation of eukaryotic gene expression; demonstrated ability to plan sound scientific projects, conduct independent research and achieve research goals; a record of significant publications in major scientific journals; and excellent written and oral communication skills. **Position #1824.**

PEPTIDE CHEMIST

Ph.D. in Chemistry, Physical Chemistry, Biochemistry or a closely related discipline and several years of postdoctoral research preferably with an emphasis in one or more of the following areas of peptide chemistry: structure-function relationships, secondary structure motifs, conformational energetics, analytical methods and peptide libraries. The candidate must have sufficient experience and ability to assume responsibility for chemistry leadership for a research effort on peptide libraries including collaboration with internal physical and analytical chemists as well as external consultants. **Position #1752.**

POSTDOCTORAL RESEARCH ASSOCIATES

Signal Transduction - The successful candidate will join a multidisciplinary group dedicated to the discovery of novel approaches for the treatment of diabetes by undertaking fundamental research on aspects of hormone/drug action and signal transduction. Candidates should possess a Ph.D. in Biochemistry, Pharmacology or a related discipline and have a background and interests in aspects of membrane receptors, G proteins and signal transduction. **Position #325.**

Transgenesis - Ph.D. in Cell Biology or a related discipline to collaborate on studies to identify new therapeutic targets in diabetes using transgenic animals generated by homologous recombination of embryonic stem cells. Prior hands-on experience with embryonic stem cell lines and the construction of vectors for homologous recombination would be advantageous. The successful candidate must be willing to spend approximately 12 months working in Basel, Switzerland in our Transgenic Animal Laboratory. **Position #322.**

Our postdoctoral positions are for a period of up to two years.

Being part of the research team at Sandoz has many advantages. Our salaries and benefits programs are designed to attract top candidates and provide them with the resources to produce their best. Comprehensive health, dental, and savings plans as well as fitness and athletic facilities are all provided at our attractive location in northwest New Jersey, which also allows for outstanding academic, cultural and outdoor pursuits. For consideration, please specify the position you are responding to and forward your resume, in confidence, to:

Robert N. Saunders, Ph.D.
Director, Human Resources 403/1
SANDOZ RESEARCH INSTITUTE
SANDOZ PHARMACEUTICALS CORP
East Hanover, New Jersey 07936
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bringing research to life

POSITIONS OPEN

GUTHRIE RESEARCH INSTITUTE SENIOR SCIENTIST/DIRECTOR

Applications are invited for the position of Senior Scientist/Director of the Guthrie Research Institute. The successful candidate will have 5 to 10 years of postdoctoral experience, demonstrated ability to attract research support, and a desire to pursue expanded research opportunities in the area of human immunology. The selected candidate will be expected to provide leadership to the growth and expansion of a human immunology research program situated in a medical setting.

The Guthrie Research Institute is a component of the Guthrie Medical complex located in Sayre, Pennsylvania. Affiliated entities include the Guthrie Clinic, a 240-physician, multi-specialty medical group, and the Robert Packer Hospital, a 370-bed inpatient, referral unit.

Interested candidates should submit their curriculum vitae including references to:

John M. Thomas, M.D., President
Donald Guthrie Foundation
Guthrie Square
Sayre, PA 18840

BIOCHEMISTRY FACULTY POSITIONS. Applications are invited for two tenure-eligible positions in the Department of Medical Biochemistry at the Ohio State University. Applicants should have a Ph.D. or M.D. and a minimum of 2 years of postdoctoral experience. The successful candidates will be expected to sustain first-rate research programs with extramural funding and to participate in the department's teaching mission. Area of research interest and academic rank are open. Send curriculum vitae, summary of research plans and names of three individuals for references by 1 December 1991 to: **Search Committee, Department of Medical Biochemistry, Ohio State University, 333 Hamilton Hall, 1645 Neil Avenue, Columbus, OH 43210.** Ohio State University is an Equal Opportunity/Affirmative Action Employer.

THE JOHNS HOPKINS UNIVERSITY FACULTY POSITION IN ENVIRONMENTAL ENGINEERING AND SCIENCE

The Department of Geography and Engineering in the G. W. C. Whiting School of Engineering at Johns Hopkins invites applications for a tenure-track position in environmental engineering and science. Rank is open. We are particularly interested in applicants in the areas of air quality, environmental chemistry, environmental engineering, environmental microbiology, and environmental quality modeling. Candidates should have evidence of research accomplishment and plans for an innovative and productive research program in a relevant environmental area, together with a strong interest in teaching. Applicants should send curriculum vitae, the names of three references, and a statement of research and teaching interests to: **Charles R. O'Melia, Chairman, Department of Geography and Environmental Engineering, The Johns Hopkins University, 34th and Charles Streets, Baltimore, MD 21218.** The closing date for applications is 15 December 1991. Johns Hopkins is an Equal Opportunity/Affirmative Action Employer and is committed to increasing the numbers of faculty who are women and underrepresented minorities. Applicants in these categories are encouraged to apply.

FACULTY POSITIONS IN PHYSIOLOGY AND BIOPHYSICS CASE WESTERN RESERVE UNIVERSITY

The Department of Physiology and Biophysics invites applications for tenure-track junior and senior positions. Candidates with strong credentials in membrane protein structure and function, especially using biophysical approaches, are encouraged to apply.

Terms are highly competitive and appointments provide excellent opportunities to develop strong, independent research programs in newly built state-of-the-art facilities in an expanding department and research community.

Submit curriculum vitae, brief statement of present and proposed research interest, representative reprints, and names of four references to: **Dr. Antonio Scarpa, Department of Physiology and Biophysics, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4970.** The University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

SUMMER FACULTY POSITIONS IN THE SPACE LIFE SCIENCES TRAINING PROGRAM (SLSTP) A NASA PROJECT

Five Project Counselor positions are open in the 1992 SLSTP to be held at the Kennedy Space Center, Florida. Project Counselors will be involved in the implementation of the 7-week-long program (starting mid-June 1992) activities for undergraduate science and engineering students. An applicant must have a minimum of an M.S. degree (Ph.D. preferred) and some experience teaching and doing research with undergraduates in life sciences and related fields. Experience with international students a plus. For further information and an application packet (all application materials must be postmarked by 31 December 1991) contact:

SLSTP Program Director
Florida A&M University
106 Honor House
Tallahassee, FL 32307
Telephone: 904-599-3623/3636

CELL BIOLOGY-NUCLEAR RNA. A POSTDOCTORAL POSITION will become available in January 1992 for a Ph.D. with expertise in microinjection of mammalian cells, to continue studies of nuclear RNA localization. This position would be ideal for an individual having experience in intracellular transport or cytoskeleton/organelle assembly using real-time, image processing-based techniques.

Send curriculum vitae and the names of at least two references to: **Dr. Thoru Pederson, Cell Biology Group, Worcester Foundation for Experimental Biology, Shrewsbury, MA 01545.** The Worcester Foundation is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study the function of cystic fibrosis gene product in intestinal epithelial cells, using molecular biology and digital fluorescence imaging. Salary commensurate with experience. Candidates should send curriculum vitae and the names of three references to: **Dr. Marshall Montrose, Johns Hopkins University Department of Medicine, Hunterian 515, 725 North Wolfe Street, Baltimore, MD 21205 or FAX: 301-955-9677.**

POSTDOCTORAL POSITIONS IN MOLECULAR BIOLOGY available to study the structure and function of three new nucleolar small RNAs, whose cDNAs were cloned, or the structure and transcription of their genes, that have been cloned. Send curriculum vitae and names of three references to: **Dr. George Eliceiri, Pathology Department, St. Louis University Medical School, 1402 South Grand, St. Louis, MO 63104.** Equal Opportunity Employer, M/F/H/V.

POSTDOCTORAL POSITIONS. Available immediately to study the molecular genetics of regulatory genes and genome organization in maize and sorghum. Experience in molecular biology is essential. Send curriculum vitae and names of three references to: **Dr. Jeff Bennetzen, Department of Biological Sciences, Purdue University, West Lafayette, IN 47907.**

POSTDOCTORAL POSITION available February 1992 to study mechanisms of hepatic microvascular injury using video fluorescence microscopy in vivo and quantitative fluorescence/image analysis in cell-culture models. Candidate should have a Ph.D. in physiology or related field and pertinent experience. Send curriculum vitae and three references to: **Mark G. Clemens, Ph.D., Johns Hopkins University School of Medicine, 601 North Broadway CMSC 7-121, Baltimore, MD 21205.** An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL ASSOCIATE POSITION available immediately for Ph.D. or M.D. to examine the molecular mechanisms involved in the regulation of expression of duplicated globin genes. Relevant techniques include working with DNA and RNA, as well as gene expression in tissue culture and transgenic mice. Send curriculum vitae and three references to: **Blanche P. Alter, M.D., Division of Hematology, Box 1079, The Mount Sinai Medical Center, One Gustave L. Levy Place, New York, NY 10029-6574.** An Equal Opportunity Employer.

POSITIONS OPEN

MOLECULAR PHYSIOLOGY OF SICKLE CELL ANEMIA POSTDOCTORAL POSITION HARVARD MEDICAL SCHOOL

NIH-funded position available immediately, to clone and characterize the potassium transport systems which regulate the volume of sickle and normal erythrocytes. Ph.D.'s or M.D.'s with prior experience in molecular cell biology should send curriculum vitae and three references to: **Carlo Brugnara, M.D., or Seth Alper, M.D., Ph.D., Molecular Medicine Unit, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215.** Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL ASSOCIATE

A postdoctoral position is open immediately to study gene expression in early *Xenopus* development. One of our main interests concerns the translational control of maternal mRNA by poly(A) elongation. See *Genes and Development* 5, 1697 to 1708 (1991) for reference. We are especially interested in individuals with expertise in molecular biology and/or protein biochemistry. Please send curriculum vitae and names of three references to: **Dr. Joel Richter, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.** An Affirmative Action/Equal Opportunity Employer, M/F/H.

POSTDOCTORAL POSITION

Applications are invited for a highly motivated scientist at the Florida Hospital Cancer and Leukemia Research Center. Applicants must have a Ph.D. in biochemistry/microbiology with emphasis in molecular biology. Available immediately to express and characterize recombinant plant toxin molecules. Studies from this laboratory include *Mol. Cell. Biol.* 9, 415-420 (1989); *Mol. Cell. Biol.* 9, 5012-5021 (1989); and *Mol. Cell. Biol.* 10, 6257-6263 (1990). Interested candidates are invited to send curriculum vitae, bibliography, and three letters of recommendation to:

Dr. Arthur Frankel, Director
Florida Hospital Cancer and
Leukemia Research Center
616 East Altamonte Drive, #100
Altamonte Springs, FL 32701
(Greater Orlando Area)
Telephone: 407-339-1004

POSTDOCTORAL POSITION available immediately for studies of mitochondrial membrane transport proteins. Of primary interest is the phosphate transport protein (PTP), which catalyzes phosphate-proton cotransport. This transport protein has also been suggested to act as a receptor for the import of nuclear-coded proteins into mitochondria [*Nature* 347, 424 (1990)]. The protein is being characterized with various chemical probes and with mutants (site-directed and random) generated from its gene in the yeast *S. cerevisiae* [*Biochemistry* 30, 248 (1991)]. Individuals with training in molecular biology and/or in (membrane) protein biochemistry are invited to send their curriculum vitae and names of three references to: **Dr. Hartmut Wohlrab, Boston Biomedical Research Institute/Harvard Medical School, 20 Staniford Street, Boston, MA 02114.** Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION MOLECULAR RETROVIROLOGY

Available immediately to participate in multi-investigator study of the molecular mechanisms of type D simian retrovirus (SRV)-induced immunodeficiency (simian AIDS). The project involves the molecular cloning, sequencing, and site-directed mutagenesis of several pathogenic type D SRV serotypes and nonpathogenic variants. The successful candidate is required to have experience in recombinant DNA technology and background in retrovirology, preferably with simian retroviruses. Salary will be commensurate with experience. Excellent location, modern open laboratory design research facility, and joint appointments in the Divisions of Neuroscience and Primate Medicine available. Send curriculum vitae and three references to: **Dr. Curtis A. Machida, Division of Neuroscience, Oregon Regional Primate Research Center (ORPRC), 505 N.W. 185th Avenue, Beaverton, OR 97006.** Telephone: 503-690-5509; FAX: 503-690-5384. The ORPRC is an Equal Opportunity/Affirmative Action Employer.

PENNSTATE



HEAD, DIVISION OF SCIENCE

Penn State Erie, The Behrend College, invites applications and nominations for the position of Head of the Division of Science.

Penn State-Behrend is a comprehensive university campus with four-year and graduate programs and with an emphasis on both scholarship and teaching. It is located in suburban Erie, the third largest city in Pennsylvania, and has over 3,000 students. Situated in the hills overlooking Lake Erie, the picturesque campus encompasses over 600 acres of natural wooded beauty. The region offers a wide range of indoor and outdoor activities and events.

The Division of Science, a new academic unit due to growth, includes 40 FTE faculty offering baccalaureate programs in biology, chemistry, mathematics and physics. Other faculty disciplines include computer science and geology. The University plans to develop graduate programs in science.

Expectations for the Position: The Head of the Division is expected to: provide leadership, vision, and communicate clearly with faculty and administrators; lead and assist faculty in developing basic and applied research with attention to external funding and the effective use of undergraduate research assistants; lead and assist faculty in developing undergraduate and graduate programs; promote an atmosphere in which faculty are encouraged to achieve their highest potential so that the best faculty are attracted and retained; promote involvement with the local industrial community and interact with other units of the College; work closely with the Division's in-charge faculty in each discipline to develop relationships with science faculty at the University's seventeen 2-year campuses; and provide organizational skills to develop and implement Division policies and strategic plans, supervise staff and administer budgets.

Qualifications: Candidates must have an earned Ph.D and adequate credentials for the rank of tenured professor at the time of appointment. Applicants must have an excellent record of teaching, scholarship and refereed research with considerable grants activity and effective organizational experience.

Appointment and Application Information: This tenured faculty position carries a standing 12-month appointment to be effective July 1, 1992. Salary is nationally competitive. The search will continue until the position is filled, and dossiers will be reviewed as they are received. Candidates should forward a detailed vita. Please include a letter of application of not more than two pages, commenting on strengths you would bring to the position.

Chair, Science Search Committee
c/o Provost's Office
Box SCI, Penn State Erie
Station Road
Erie, PA 16563-0101

An Affirmative Action/Equal Opportunity Employer
Women and Minorities Encouraged to Apply



Dean of the College of Medicine and Vice President for Biomedical and Medical Education

The SUNY Health Science Center at Syracuse (HSC), comprised of the College of Medicine, the College of Health Related Professions, College of Graduate Studies, the College of Nursing, and University Hospital, invites applications and nominations for the position of Dean of the College of Medicine and Vice President for Biomedical and Medical Education.

The Dean and Vice President is a chief academic officer of our academic health center which is the primary medical/health care professional education and patient care resource for the fifteen county region of Central New York. The SUNY Health Science Center at Syracuse serves about 1000 students in the Colleges of Medicine, Nursing, Graduate Studies and the Health Related Professions. In addition to graduate medical education (375 trainees) and continuing-medical education, the College of Medicine offers advanced studies and research opportunities in the basic and clinical medical sciences.

The Dean is appointed by and reports to the President of the Health Science Center. In addition to serving as the head of the College of Medicine's 365 member full-time faculty and as the senior member of the President's Management Team, the position also carries responsibility for providing leadership in planning, development and implementation of all educational, research and service programs of the College of Medicine.

The office of Dean and Vice President requires an individual with demonstrated leadership ability, an outstanding record of intellectual and academic performance, significant experience in academic administration and a personal commitment to guide and develop the threefold mission of excellence in teaching, research and patient care. An earned doctorate, preferably an M.D., is required.

Review of the applicants will begin immediately and will continue until the position is filled. Applicants should send (1) a letter expressing their interest in the position, (2) their curriculum vitae, and (3) the names of three references (references will not be contacted without applicant's prior permission). Applications should be submitted to:

George H. Collins, M.D.
Chairman, Search Committee for the Dean, College of Medicine/
Vice President for Biomedical and Medical Education
Office of the President
SUNY Health Science Center
750 E. Adams Street
Syracuse, NY 13210-2399

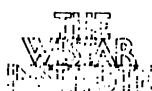
All inquiries, nominations, and applications will be held in strictest confidence. SUNY HSC @ Syracuse is an Affirmative Action/Equal Opportunity Employer with a strong commitment to racial, cultural, and ethnic diversity.

Post Doctoral Research at The Wistar Institute

The Wistar Institute, an independent research organization located on the campus of the University of Pennsylvania, is currently seeking Post doctoral applicants interested in cancer-oriented research. Wistar has maintained a reputation for pioneering work and ground-breaking accomplishments since its founding nearly 100 years ago.

Fellows can anticipate a stimulating and challenging experience in the tradition of strong interdisciplinary collaboration within an environment utilizing state-of-the-art biotechnology. Wistar's general areas of research interest include: Molecular Oncology, Molecular Virology, Cell & Developmental Biology, Tumor Biology & Immunology, Cell & Molecular Immunology and Structural Biology.

Interested applicants are requested to send a Curriculum Vitae and the names of three references to:
**Coordinator of Research Training,
THE WISTAR INSTITUTE, 36th
& Spruce Streets, Philadelphia,
PA 19104.**



Equal Opportunity Employer

ENDOWED CHAIR IN DEVELOPMENTAL BIOLOGY

*Department of Genetics and Cell Biology
University of Minnesota, St. Paul, MN*

The University of Minnesota, Twin Cities Campus, has reopened an invitation for applications and nominations of distinguished scientists for the newly endowed Ordway Chair in Developmental Biology at the rank of tenured FULL PROFESSOR. Qualifications include: an outstanding record of academic achievement, a strong record of extramural support, and a vigorous research program utilizing cell biology, molecular biology, and genetics applied to problems in eukaryotic development. Substantial startup funds will be provided. The Department of Genetics and Cell Biology, a department in the College of Biological Sciences, has responsibility for both undergraduate and graduate studies in Cell and Developmental Biology and Genetics. The successful candidate will be expected to teach and to direct a vigorous research program.

Applications should include curriculum vitae, a statement of research interests, and names of at least three references and be sent to: Ordway Chair Search Committee, Department of Genetics and Cell Biology, University of Minnesota, 250 Biological Sciences Center, St. Paul, MN 55108-1095. Applications will be accepted until November 15, 1991. The University of Minnesota is an Equal Opportunity Educator and Employer.

UNIVERSITY OF MINNESOTA

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE

TWO POSTDOCTORAL ASSOCIATE POSITIONS are available immediately in the Tumor Immunology Laboratory to investigate the role of tyrosine kinases and tyrosine phosphatases in human lymphocyte development and differentiation [PNAS 88, 3589 (1991), PNAS 88, 6323 (1991), IBC 266, 17478 (1991)]. The position would suit individuals who have had postdoctoral experience in organic chemistry, biochemistry, protein chemistry and cellular immunology, as well as in individuals who have recently obtained their Ph.D. in biochemistry, chemistry, immunology, or microbiology. Applications including the names of three references, full curriculum vitae, reprints of representative publications, and a summary of the completed Ph.D. thesis should be sent by 15 November 1991 to: F. M. Uckun, M.D., Ph.D., Associate Professor and Director, Tumor Immunology Laboratory, Box 356 UMHC, 420 Delaware Street, S.E., Minneapolis, MN 55455; telephone: 612-626-6564; FAX: 612-626-7060. *The University of Minnesota is an Equal Opportunity Employer.*

DROSOPHILA MOLECULAR NEUROBIOLOGY

POSTDOCTORAL ASSOCIATE position in *Drosophila* molecular neurobiology available immediately. Research projects concern studies of circadian rhythms and inhibitory neurotransmitter systems. Experience in molecular biology, immunocytochemistry, and/or *Drosophila* genetics is essential. Submit curriculum vitae and names of three references to: Dr. F. Rob Jackson, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. *An Affirmative Action/Equal Opportunity Employer, M/F/H.*

TWO POSTDOCTORAL POSITIONS. Positions available for persons with expertise in protein chemistry or molecular biology to participate in NIH-funded projects on biology and immunoprotective determinants of intracellular agents of Legionnaires' disease, leprosy, and tuberculosis. Send curriculum vitae and letters of recommendation to: Dr. Marcus A. Horwitz, Department of Medicine, UCLA School of Medicine, 10833 Le Conte Avenue, Los Angeles, CA 90024-1688. FAX: 213-825-3632.

POSTDOCTORAL POSITION available in research program investigating the immunotherapy and chemotherapy of *Mycobacterium tuberculosis* and *Mycobacterium avium* infections in mouse models. Recent Ph.D. in immunology preferred. Send curriculum vitae and names of three references to: Dr. Ian Orme, Department of Microbiology, Colorado State University, Fort Collins, CO 80523. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWS

(1) Gene therapy using new retroviral and other factors to express recombinant genes in bone marrow stromal cells engrafted into experimental animals. A Ph.D. in molecular biology with published experience in gene cloning and sequencing, retroviral vector construction, Northern and Southern analysis, tissue culture cell biology and protein chemistry.

(2) Project on the molecular mechanism of gamma irradiation repair in mammalian cells and its alteration by viral genes, oncogenes and growth factor. A Ph.D. in molecular biology and radiation biology with experience similar to above.

Send curriculum vitae and three letters of recommendation to: Joel S. Greenberger, M.D., Professor and Chairman; Department of Radiation Oncology, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, MA 01655. *Equal Opportunity Employer.*

M.D./Ph.D. FELLOWSHIPS

The Medical University of South Carolina offers stipends (\$10,200 to \$15,000) for studies leading to combined M.D./Ph.D. degrees in each of the basic biomedical sciences and molecular and cellular biology/medicine. Contact: Director, Medical Scientist Training Program, College of Graduate Studies, MUSC, 171 Ashley Avenue, Charleston, SC 29425.

POSITIONS OPEN

POSTDOCTORAL TRAINING PROGRAM IN NEUROBIOLOGY, Columbia University. Emphasis is placed on the analysis of the cellular and molecular basis of neural development, behavior, and behavioral plasticity. Training faculty include: Richard Axel, Craig Bailey, David R. Colman, Jane Dodd, Michael Gershon, Claude Ghez, Daniel Goldberg, James Goldman, Lloyd Greene, Mary E. Hatten, Robert Hawkins, Thomas Jessell, Eric Kandel, John Koester, Irving Kupfermann, Ronald Liem, Amy MacDermott, Carol Mason, John Martin, Frederick R. Maxfield, John E. Pintar, Steve Rayport, Lorna Role, Taube Rothman, Samuel Schacher, James Schwartz, Eli Shapiro, Michael Shelanski, Steven Siegelbaum, and Gary Struhl. Applicants for this NIMH-sponsored program must have the M.D., Ph.D., or D.V.M. degree and be either U.S. citizens or have permanent residency status. Send curriculum vitae, a letter describing research interests, and three letters of reference to: Admissions Committee, Postdoctoral Training Program, Center for Neurobiology and Behavior, 722 West 168th Street, New York, NY 10032. *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWSHIPS. The Monell Chemical Senses Center announces the immediate availability of postdoctoral fellowships in interdisciplinary training and research in the chemical senses. We are seeking applicants with a recent Ph.D. in one of the following disciplines: animal behavior, biochemistry, biology, chemistry, ecology, epidemiology, genetics, neuroscience, nutrition, physiology, psychology, sociology, or zoology. Research activities at the center range from studies on receptor mechanisms of taste, smell and chemical irritation at the subcellular level, including molecular genetics, to investigations on the ecological, social and reproductive significance of chemical signals. The center also maintains a major Chemosensory Clinical Research Center with Jefferson Medical College of Thomas Jefferson University. Individuals having interests in conducting clinical and/or biomedical research on taste, smell, nutrition or related areas also are encouraged to apply. Stipend will depend upon level of experience. Please send a brief description of previous research interests, curriculum vitae and three references to: Dr. Charles J. Wysocki, Chair, Training Program, Monell Chemical Senses Center, 3500 Market Street, Philadelphia, PA 19104-3308. *The Monell Center is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWSHIP IN BIOSTRUCTURAL RESEARCH

Unique position available for an individual with Ph.D. or M.D. and with broad preparation and expertise in cell biology, cellular electrophysiology, or molecular biology. Candidates should have interest and skills with fluorescence ratio imaging microscopy. Expanding institutional research resources provide an array of analytical capabilities and services.

Research investigations include the effects of altered eukaryotic gene expression in vitro and in vivo.

We provide flexibility in new investigations and the opportunity to gain multidisciplinary teaching experience in preparation for a faculty position.

The position may have a joint appointment in both the Department of Anatomy and Cell Biology and the Department of Physiology. It is not grant-dependent and will be 1 to 3 years in the first instance.

Please send detailed curriculum vitae, description of research interests, and names of three references to: Chairperson, Department of Anatomy and Cell Biology, School of Medicine, Marshall University, Huntington, WV 25755-9350.

Available on or about 7 January 1992.

Marshall University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE. To participate in ongoing studies on fibrous proteins, to study cloning and expression of repetitive eukaryotic genes. Will work with a team involved in cloning structural proteins. Background in cloning and expression required. One-year appointment available immediately. Salary: \$31,116 per annum; limited benefits. Send resume and three references to: Dr. David L. Kaplan, U.S. Army Natick Research, Development and Engineering Center, Attention: STRNC-YM, Kansas Street, Natick, MA 01760-5020. U.S. citizenship required. *Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE

Position available to investigate molecular and cellular mechanisms of birth defects. Studies include analysis of transmembrane signaling and intracellular signal transduction mechanisms. Particular emphasis directed toward clarification of interactions among growth factors, protein kinases and transcription factors in regulating gene expression and cell differentiation during normal and abnormal mammalian embryonic development. Strong background in biochemistry, cell and/or developmental biology required; expertise in molecular methodologies recommended. Inquiries may be sent to: Dr. Robert M. Greene, Molecular Determinants of Birth Defects Training Program, Jefferson Medical College, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107. *Smoke-free environment. Equal Opportunity Employer.*

RESEARCH ASSISTANT II. For educational institution in northeast Ohio. Duties are: research signal transduction in renal proximal tubule; isolate membrane; calculate and analyze data; write proposal and paper. Must have M.S. in medical science or foreign equivalent as determined by accredited agency. No experience required in above duties but applicant's academic background must include 1 year of graduate research in renal area using iodination technique, radioimmunoassay, pathological technique, receptor binding; and one course each in statistics (medical or biological), molecular biology, physiology, cytobiology and biochemistry. Applicant must also have one research paper in the renal area. Work 37 1/2 hours per week, 8:30 a.m. to 5 p.m., Monday through Friday; \$21,365 per year. *Must have proof of legal authority to work permanently in United States.* Applicants should submit resumes in duplicate (no calls) to: S. Holton, JO #1255799, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

THE UNIVERSITY OF TEXAS AT DALLAS

POSTDOCTORAL RESEARCH POSITION.

Available immediately to study the expression and regulation of genes that encode subunits of the mammalian mitochondrial oxidative phosphorylation system. Send curriculum vitae (indication of sex and ethnicity for Affirmative Action statistical purposes is requested but not required), and names of three references to: Dr. G. Breen, Department of Molecular and Cell Biology, The University of Texas at Dallas, P.O. Box 830688, Richardson, TX 75083-0688. *Affirmative Action/Equal Employment Opportunity.*

POTSDOCTORAL RESEARCH POSITIONS DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS CASE WESTERN RESERVE UNIVERSITY

Postdoctoral positions are available in the areas of membrane protein structure and function; membrane transport; molecular biological studies of growth factors, receptors, oncogenes, viruses and cell differentiation; electrophysiological and biophysical studies of cell function.

Applicants should send curriculum vitae, the names and addresses of three references, and a brief letter describing past and present research activities as well as future research interests to: Christine G. Sciuili, Coordinator, Educational Programs, Department of Physiology and Biophysics, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4970.

INVERTEBRATE OR VERTEBRATE ECOLOGIST. The National Park Service, Indiana Dunes National Lakeshore, Porter, Indiana, is seeking applications for the position of research ecologist (animal). The position involves responsibility for investigations in own area of expertise (population, community or ecological interaction research preferred). The individual will also prepare research proposals and administer research contracts. Must have earned a Ph.D. or equivalent combination of professional experience and graduate education. *Must be a United States citizen.* The position will be filled at the GS-12 level; salary range: \$38,860 to \$50,517 per annum depending upon qualifications. *The National Park Service is an Equal Opportunity/Affirmative Action Employer.* For vacancy announcement and application instructions contact: Dr. Richard Whitman, Chief Scientist, Research Division. Telephone: 219-926-7561.

Research Opportunities At The National Institute On Alcohol Abuse And Alcoholism/ADAMHA.

The National Institute on Alcohol Abuse and Alcoholism (NIAAA), located at the National Institutes of Health campus, offers an environment of unparalleled academic opportunity. Four positions are immediately available for Staff Fellows and Senior Staff Fellows with NIAAA:

Staff Fellow or Senior Staff Fellow position available now for animal behavioral geneticist to focus on the neurogenetics of serotonin function. The position is in the laboratory of Dr. David Goldman, Section on Genetic Studies, Laboratory of Clinical Studies. Salary range is \$24,000 to \$52,825, depending upon qualifications and experience. Applicants should have a PhD or MD and training in animal behavior, genetics, and/or neurobiology.

Staff Fellow or Senior Staff Fellow position available now to investigate genetic variation and molecular mechanisms controlling expression of genes involved in serotonergic neurotransmission. The position is in the laboratory of Dr. David Goldman, Section on Genetic Studies, Laboratory of Clinical Science. Salary range is

\$24,000 to \$52,825, depending upon qualifications and experience. Applicants should have a PhD or MD and training in molecular biology, recombinant DNA technology, or neurobiology.

The Section of Analytical Chemistry, Laboratory of Clinical Studies, invites qualified individuals to apply for a fellowship for the study of Phospholipid Metabolism and Remodeling in neuronal tissues. The Section specializes in the study of polyunsaturated phospholipids in relation to their membrane function and metabolism. A unique opportunity exists for the successful applicant to participate in basic studies involving general elements of lipid biochemistry and clinical studies involving the biological basis of alcohol action in conjunction with our interdisciplinary group using mass spectrometry extensively. A background in either lipid biochemistry or biomedical mass spectrometry is appropriate for this position. Applicants should have less than three years postdoctoral experience.

The Section of Clinical Biochemistry and Pharmacology, Laboratory of Clinical Studies

invites qualified individuals to apply for a fellowship to study the effects of ethanol withdrawal on drug-metabolizing enzymes. The Section focuses on the alteration of drug-metabolizing activity as the result of alcohol consumption. A unique opportunity exists for the successful applicant to participate in basic studies of enzyme activity and clinical studies involving altered pharmacokinetics of therapeutic agents. A background in biochemistry or pharmacology and experience with *in vitro* enzyme assays and/or HPLC is appropriate for this position. Applicants should have less than three years postdoctoral experience.

Each of these fellowship opportunities represents the chance to work side-by-side with some of the most cited physicians and scientists in the world, in one of the world's foremost biomedical research facilities. To apply for these positions, please send your CV, three letters of reference (or names of three references), and a one page description of relevant research interests to Mr. Michael Yuter, Personnel Management Branch, NIAAA, ADAMHA.

National Institute On Alcohol Abuse And Alcoholism

Alcohol, Drug Abuse, And Mental Health Administration

Building 31, Room 1B54, 9000 Rockville Pike, Bethesda, Maryland 20892

Equal Opportunity Employer

RESEARCH — PALO ALTO, CALIFORNIA

Molecular Biology Diabetes and Rheumatoid Arthritis

Develop novel antigen identification methods, coordinate molecular biology efforts, construct cDNA libraries, develop eucaryotic and procaryotic expression systems and investigate the molecular mechanisms responsible for T cell non-responsiveness.

Requirements: Ph.D. in Molecular Biology or a related field with a molecular biology emphasis; 2-5 years' postdoctoral experience, or equivalent. Experience with tissue culture and immunological techniques is highly desirable.

Organic Chemist
Investigate the structural requirements for MHC class II-antigen binding via the design and synthesis of peptides and peptidomimetics.

Requirements: We prefer a Ph.D. in Organic Chemistry with a strong record of achievement, but we're open to a wide range of backgrounds and qualifications. Experience with computer-assisted molecular modeling and medicinal chemistry techniques is desirable.

Instinctive For Some...

We don't claim to be right for everyone. But for people who are attracted to a non-bureaucratic environment where concepts are freely tested, we can be the right choice. At ImmuLogic, our discoveries have allowed us to develop an advanced understanding of the events controlling the human immune system. At our state-of-the-art research facility in Palo Alto, California, we're focused on developing therapeutic products for Type 1 diabetes, rheumatoid arthritis, and other autoimmune disorders.

With the success of our recent stock offering, and our ongoing collaboration with Merck and Company, Inc., we're primed to continue our excellent research. We can also offer you an extremely competitive compensation/benefits package. Send your C.V. to **Human Resources**.

IMMULOGIC 
Pharmaceutical Corporation

855 California Avenue, Palo Alto, CA 94304
An Equal Opportunity Employer.

TargeTech, Inc. is a research stage biopharmaceutical company pursuing a novel non-retroviral technology for gene therapy and treatment of selected cancers and viral diseases. This is an exceptional opportunity for highly motivated, innovative scientists with the desire to be an integral member of a multidisciplinary team in our start-up, entrepreneurial environment.

► **BS/MS Organic Chemists** — We seek bio-organic chemists to participate in the preparation and characterization of pharmaceuticals for treatment of genetic disorders, cancer and viral diseases by targeted delivery. Chemists should be experienced in synthetic techniques using both organic and aqueous media.

► **Ph.D. Molecular Biologists** — We seek scientists with demonstrated skills in the area of mammalian expression systems to develop programs focused on using proprietary technology for transfecting genes into cultured cells and animal models. Particular emphasis will be placed on exploring approaches for improving the level of expression of human genes that will be used therapeutically.

► **Ph.D. Cell/Receptor Biologist** — Scientist with experience in general cell biology and receptor-mediated endocytosis. Individual will have responsibility to establish a program that will expand our novel receptor-mediated system and to improve delivery of DNA.

► **BS/MS Scientists Cell/Molecular Biology** — We seek scientists who wish to participate as members of interactive teams. Cell biologists should be familiar with a range of cell biology/biochemistry methods. Molecular biologists should have proven skills in DNA/RNA isolation, Northern/Southern blotting, plasmid preps, PCR, etc.

TargeTech, Inc. is committed to providing a nurturing environment for creative, highly motivated scientists by offering competitive salaries, a comprehensive benefits package and equity participation in the company. Submit resumes to: **TargeTech, Inc., Human Resources, 290 Pratt St., Meriden, CT 06450**. We are an equal opportunity employer.

 **TARGE TECH INC.**

R & D OPPORTUNITIES

MedImmune, Inc. is committed to the discovery and application of novel molecular and immunologic approaches toward the development of vaccines and therapeutic agents for human infectious diseases. We currently have several openings in our research organization for creative, hardworking individuals with records of demonstrable productivity in the following areas:

ANTIBODY ENGINEERING, Scientist level—We require an MS/PhD with several years' research experience in the rational design, molecular cloning and expression of recombinant immunoglobulin genes and the evaluation of biochemical properties of antibodies.

ANTIBODY ENGINEERING, Research Associate level—Candidates should have a BS/MS and several years' laboratory experience in several of the following areas: RNA and DNA purification, cDNA cloning, PCR, DNA sequencing, Western and ELISA.

BACTERIAL GENETICS, Scientist level—You should have an MS/PhD in molecular biology/microbiology with several years' research experience in the optimization of expression of eukaryotic viral genes in bacterial vector/host systems. Experience with mutagenesis techniques and in the development of live bacterial vaccine vehicles is also desirable.

IMMUNOLOGY, Research Associate level—We seek a BS/MS and laboratory experience in several of the following areas: lymphocyte functional assays, lymphocyte subset purification, immunofluorescence, small animal handling, Western immunoblot, ELISA, immunoprecipitation, hybridoma technology and antibody purification.

MAMMALIAN CELL EXPRESSION, Research Associate level—The successful candidate will possess a BS/MS and several years' experience in mammalian cell culture, RIA and ELISA techniques and protein purification.

VIROLOGY, Research Associate level—You should have a BS/MS with several years of laboratory experience in mammalian cell structure, virus propagation, virus neutralization, and viral antigen detection, specifically with either HIV or RSV.


MedImmune, Inc.

We offer competitive salaries, an excellent benefits package and a unique opportunity for professional growth. Applicants should submit their resume for prompt, confidential consideration to: **MedImmune, Inc., Human Resources, 19 Firstfield Road, Gaithersburg, MD 20878**. Equal Opportunity Employer.

Research Scientists Immunology

THE SCIENCE OF SUCCESS

Since its beginning in 1933, Schering-Plough's dedication to state-of-the-art immunological research has resulted in a host of life-giving and life-enhancing therapies for man, including the recent successful launch of Intron A. Our current work on IL4, GM-CSF and IL-10 creates excellent opportunities for qualified individuals to join this team-oriented environment.

ASSOCIATE SCIENTIST (5 positions)

Will investigate the role of cytokines in models of autoimmune diseases. Ability to work with small animals and in-vivo immunology experience is required. Position requires Bachelor's degree in biology, cell biology or immunology with 2-3 years' experience.

ASSOCIATE SCIENTIST

Evaluate and implement new techniques to investigate molecular mechanisms of gene regulation. To qualify, you must have a B.S. degree with 4+ years' experience or M.S. with 2+ years in the areas of recombinant DNA and cell culture techniques, northern blotting, cDNA and genomic cloning, transfection of mammalian cells, maintenance of tissue culture lines, PCR and nucleic acid sequencing. Familiarity with sequence analysis software is necessary.

Both positions offer highly competitive salaries, superior benefits, and all the challenge and growth potential an international industry leader can offer. Please forward your resume, indicating position of interest, to George Czuba, Human Resources Dept, Schering-Plough Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

 **Schering-Plough**

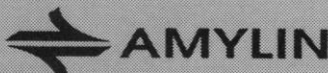
PRODUCT DEVELOPMENT Assay Development/Quality Control

Amylin Corporation in San Diego, CA, is a development stage pharmaceutical company working on products for diabetes and related metabolic disorders, initially based on amylin, a recently discovered pancreatic beta cell hormone (see Cooper et al., *Biochemica et Biophysica Acta* (1989) 1014:247-58). The Department of Product Development has two new openings for outstanding individuals with demonstrated accomplishment in assay development and quality control procedures. These individuals will form a new Quality Control group within the company. They will be responsible for developing and supporting a range of assays for in-process testing/validation and specification/release of bulk and final product. Experience with recombinant proteins is preferred.

Senior Staff Scientist: We are seeking a qualified M.S. or Ph.D. with industrial experience, knowledge of GMP and GLP, and hands-on expertise in assay development, assay validation, and written documentation. This person will direct the group's activities and manage the interface with Regulatory Affairs.

Research Associate: We are seeking a qualified individual with good assay development skills and previous experience with transfer of assays to QC and GMP/GLP.

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



RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

The Department of Biotechnology is seeking applicants for our ongoing program of crop improvement. Pioneer offers competitive salaries, excellent facilities and a highly cooperative research environment. Successful candidates will be expected to interact extensively with ongoing programs in transformation, gene expression, gene isolation or RFLP programs.

RESEARCH ASSOCIATE, VECTOR CONSTRUCTION (JOB #1365) - The successful candidate for this position will be part of a team of people responsible for the design and construction of vectors for proper expression in plants. The vector construction effort is carried out in the DNA Core Facility of the Gene Expression group. A B.S. degree or equivalent work experience in biological sciences, molecular biology or related field and 3 years directly related laboratory experience are required. Applicants should also have experience in cloning and/or vector construction methods.

SENIOR RESEARCH ASSOCIATE, GENE EXPRESSION ASSAYS (JOB #1361-A) - The successful candidate for this position will be responsible for designing, developing and performing transient assays for gene expression in plant tissues within the Gene Expression group. A M.S. degree in biological sciences or equivalent work experience plus 3 years directly related laboratory experience or a B.S. degree or equivalent work experience plus 5 years directly related laboratory experience are required. Applicants should also have experience in use of particle bombardment for transient and/or stable transformation in plants.

Applications received by November 11, 1991 will be assured of consideration. However, applications will be considered until the positions are filled.

Pioneer Hi-Bred International, Inc. is an
Equal Opportunity/Affirmative Action employer.

Please send resume indicating the JOB # and the names, addresses and telephone numbers of three references to:



PIONEER HI-BRED INTERNATIONAL, INC.
Plant Breeding Division
Department of Biotechnology Research
Attn: Jane Blacketer
P.O. Box 38
Johnston, IA 50131-0038

Postdoctoral Researchers Neuroscience

Genentech, Inc., a leader in the biotechnology industry, has exceptional opportunities to join our progressive company. Consider one of the following:

Neurotrophin Biology

In this position, you will study the biology of neurotrophins. Qualified candidates must have a related PhD and an interest in the role of neurotrophins in neuronal development or in degenerative disorders. Special consideration will be given to those who wish to investigate the role of trophic factors in human CNS disorders and/or animal models of disease. Dept. YS/HP.

Molecular Neurobiology

In this position, you will study the role of mammalian transcription factors, related to *Drosophila* neurogenic genes, in neuronal development and phenotype regulation. Requires a related PhD and a background in Molecular Biology with an interest in cellular neurobiology, specifically in the area of the structure and function of the neurotrophins NT-3 and BDNF. Dept. YS/JW.

A second position also exists for a Postdoctoral Researcher trained in molecular biological techniques. Studies include the analysis of neurotrophic factors using a combination of molecular, anatomical and pharmacological approaches. A specific project includes the use of mutagenesis studies to analyze structure-activity relationships between the neurotrophic factors and their receptors. Dept. YS/SP.

Genentech offers an extensive benefits package which includes fully paid dental/medical/vision coverage for you and your dependents, child care facilities and free health club membership. For immediate consideration, please send your resume, indicating dept. of interest, to Genentech, Inc., Human Resources, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity.

Genentech, Inc.

POSITIONS OPEN

ASSISTANT BIOPHYSICIST position available at teaching hospital affiliated with leading medical school to conduct research into the optimization of radiation therapy of cancer. Duties include: the development of biophysical models for automated evaluation of possible treatment approaches; the development of mathematical algorithms to search for a treatment approach which maximizes or minimizes the automatically computed score; supervision of computer programmers and graduate students; the application of techniques, developed in the research, to the radiation treatment of cancer patients in the Department of Radiation Oncology. Minimal requirements are: Ph.D. degree in physics with minimum of 2 years of postdoctoral research in mathematical methods of optimization and biophysical models of radiation response. Must be Board-certified or eligible for Board certification in therapeutic radiological physics by the American Board of Radiology. Must have knowledge of computer programming in Fortran and C. Must have a record of accomplishment, as evidenced by publications in scientific journals, which would make the applicant eligible for an academic appointment as assistant professor. Salary: \$60,000 per annum. Interested applicants should submit two copies of curriculum vitae, including bibliography, and refer to: Job Order # 1896, P.O. Box 8968, Boston, MA 02114.

CYTOGENETICIST. Ph.D. in cytogenetics preferably with New York City license in cytogenetics required at 650-bed university hospital with resident training in pathology. Research experience desirable. Apply to: H. Simpkins, M.D., Ph.D., Department of Pathology, Staten Island University Hospital, 475 Seaview Avenue (Laboratory), Staten Island, NY 10305. Equal Opportunity Employer.

FISH ECOLOGIST

Coordinator position for research program relating fish condition and growth to lake food webs and water quality. Position (nonbenefits) from 1 November to 12 June 1992. Continuation of position with benefits contingent upon grant renewal. Annual salary: \$22,000. Minimum qualifications: Bachelor's degree with 1 year of experience in a fisheries-related area. Search ends 25 October 1991. Send résumé and three letters of recommendation to: Dr. James F. Haney, Department of Zoology, University of New Hampshire (UNH), Durham, NH 03824. UNH is an Affirmative Action/Equal Opportunity Employer.

SENIOR RESEARCH SCIENTIST PHARMACEUTICALS

For research laboratories, pharmaceutical products in Madison, Wisconsin, to develop novel drug delivery system and study the transport of various drugs across mucosal tissue. Ph.D. or (ABD) in pharmaceuticals. One year of experience in the field or 1 year of experience as teaching assistant in pharmaceuticals (experience can be concurrent with Ph.D. program). Experience or coursework must include: HPLC and GPC analysis, laser confocal microscopy, electrophysiological measurement, bioadhesion and membrane drug permeation. Salary \$45,000 per year; 40 hours per week. Report to: Alexis Taylor, Dane County Job Service Office, 206 North Broom Street, Madison, WI 53703. Job Order #0389578.

MOLECULAR IMMUNOLOGIST

Applications are invited for a tenure-track immunologist interested in the molecular effects of toxicants on the immune system. The position will require approximately 60% research and 40% teaching. The candidate must possess a Ph.D. and at least 2 years of postdoctoral training in molecular immunology. The person will be expected to develop an independent extramurally funded research program as well as participate in collaborative research efforts in the area of immunotoxicology. Teaching duties include medical, dental as well as other allied health students. Interested individuals should send a letter of application, curriculum vitae, statement of research interests and goals, and three letters of reference to: John B. Barnett, Ph.D., Department of Microbiology and Immunology, West Virginia University School of Medicine, Health Sciences Center North, Morgantown, WV 26506. Deadline for applications is 30 November 1991. An Affirmative Action/Equal Opportunity Institution. Women and minorities are encouraged to apply.

POSITIONS OPEN

PHYSIOLOGIST

Northeast Missouri State University (NMSU) offers a tenure-track position, starting August 1992, in physiology. Applications are particularly invited from candidates with training and interest in neurophysiology; however, all qualified physiologists will be considered. Teaching responsibilities will include introductory and advanced courses in physiology, as well as rotation into introductory biology (for majors and nonmajors). Whereas teaching and research are mutually supportive activities at NMSU, the successful candidate must be primarily committed to teaching, but will also be expected to involve undergraduate and M.S. students in an active research program. Laboratory space, basic instrumentation, and start-up funding will be provided. The mission of Northeast Missouri State University, the State's Liberal Arts and Sciences University, is to provide an outstanding educational environment to an academically-talented student body while remaining economically accessible. Candidates must possess a Ph.D., an excellent undergraduate and graduate record, leadership and service qualities, and must be committed to providing high-quality classroom and research opportunities for undergraduates. Women and minorities are encouraged to apply as NMSU seeks to culturally broaden and diversify both faculty and student bodies. Applications, including curriculum vitae, statements of teaching philosophy and research goals, undergraduate and graduate transcripts, and three letters of recommendation, should be sent to: Dr. Michael G. Tannenbaum, Division of Science, Northeast Missouri State University, Kirksville, MO 63501. Telephone: 816-785-7253. Complete applications will be reviewed starting 2 December 1991.

WETLANDS RESTORATION EXPERTS

The U.S. Army Corps of Engineers is developing comprehensive wetlands management plans to preserve wetlands and open space and to restore wetlands affected by the Passaic River Flood Protection Project. Freshwater wetlands experts are needed to plan studies, design site-specific mitigation and long-term wetlands management, particularly the control of exotic wetlands species. Nationally recognized experts with documented experience are required.

For further instructions, watch for our ad in the *Commerce Business Daily* during the week of 27 October 1991.

This is a part-time position. Consultants' fees will be based on qualifications and experience.

The U.S. Army Corps of Engineers is an Equal Opportunity Employer.

Calendar of Upcoming Meetings

SCIENCE will be distributed to scientists attending the following meetings:

NEUROSCIENCE

11 to 14 November 1991, New Orleans, LA
Issue Date: 1 November 1991

SALON DU LABORATOIRE

2 to 6 December 1991, Paris, France
Issue date: 15 November 1991

AMERICAN SOCIETY OF CELL BIOLOGY

8 to 12 December 1991, Boston, MA
Issue date: 22 November 1991

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at these events.

Deadline for classified ads:
15 days prior to issue date at 10:00 a.m.

SCIENCE Classified Advertising
Telephone: 202-326-6555
FAX: 202-682-0816

POSITIONS OPEN

RESEARCH IMMUNOLOGY, Manhattan, New York City, New York. Overall direction and supervision of the flow cytometry laboratory that performs the critical evaluation procedures for patients receiving organ transplantation. Performance of prospective cross match tests using T- and B cell-specific gating. Analysis and evaluation of various biological specimens by fluorescence-activated cell sorter (FACS). Isolation of minor but important subsets of T cells using FACS. Conduct immunobiological research in the areas of transplantation and AIDS. Isolation of total RNA, mRNA and DNA from cells and various tissues. Performance of quantitative polymerase chain reaction, Northern and Southern hybridization. Identification, isolation and purification of lectins with anti-HIV-1 (AIDS virus) activity with ion exchange and various chromatographic techniques and antigen capture assay. Coordination of research involving the development of new approaches usable in the nonradioactive detection of various cytokines. Candidate must have a Ph.D. in human biology or immunology with at least 3 years of experience in the relevant field. Preference will be given to applicants with a track record of securing funded research from national agencies and publishing research in peer-reviewed journals. Thirty-five hours per week; annual salary, \$40,000. Send résumé in duplicate to: AN # 309, Room # 501, One Main Street, Brooklyn, NY 11201.

RESEARCH SCIENTIST MOLECULAR BIOLOGY

A position is available immediately for an individual with a Ph.D. in molecular biology plus several years of relevant laboratory experience, and a proven publication record. The successful candidate will bring experience in the regulation of gene expression.

This position offers an opportunity to work on scientifically exciting and state-of-the-art programs in dermatology. A very attractive salary and comprehensive benefits package is available.

Submit résumé along with salary requirements in confidence to:

Supervisor, Human Resources
Bristol-Myers Squibb Company
Pharmaceutical Research Institute
100 Forest Avenue
Buffalo, NY 14213

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Arabidopsis Biological Resource Center at Ohio State. **RESEARCH TECHNICIAN.** The *Arabidopsis* Biological Resource Center at Ohio State will employ four technical associates to assist in all aspects of the center's mission. This mission involves preserving, characterizing and distributing mutant lines and DNA clones of the important model research plant, *Arabidopsis thaliana*. All associates will be required to accumulate and enter plant and DNA collection data into a computer database. They will also supervise undergraduate employees, and assume responsibility for quality control, including testing of mutant plants and cloned DNA characteristics.

Applicants must have at least an M.S. in genetics or molecular biology. Experience with *Arabidopsis* is preferred for the two seed laboratory applicants, and DNA analytical technique experience is required for the two DNA laboratory applicants. Salary range: \$21,000 to \$25,000. Applications, including the names of three references, should be sent to: Dr. Randall L. Scholl, Director, The *Arabidopsis* Biological Resource Center at Ohio State, 1735 Neil Avenue, Columbus, OH 43210.

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

RESEARCH TECHNICIANS

Several research technician positions are available at SCIENTIST, ASSISTANT SCIENTIST and JUNIOR SCIENTIST levels in the research group of Dr. F. Uckun to investigate the role of src-family kinases in the development of biology, and treatment responses of human lymphoid malignancies. Applicants must have extensive experience in molecular biology and/or cellular immunology. Please reply with curriculum vitae to: F. M. Uckun, M.D., Ph.D., Associate Professor and Director, Tumor Immunology Laboratory, Box 356 UMHC, 420 Delaware Street S.E., Minneapolis, MN 55455; telephone: 612-626-6564; FAX: 612-626-7060. The University of Minnesota is an Equal Opportunity Employer.

Senior Research Scientist Biopolymer Laboratory

The Medical Research Division of American Cyanamid Company currently seeks a Senior Research Scientist to join its Cardiovascular and Central Nervous System Research efforts at our Lederle Laboratories located in a campus-like environment at Pearl River, New York, just 25 miles north of New York City.

The successful candidate should be thoroughly familiar with oligonucleotide technologies including their synthesis, purification, sequencing, and utilization for DNA library screening, primer extension analysis, DNA and mRNA polymerase chain reactions, gel shift assays, and DNA sequencing by conventional methods and using DNA sequencers. Knowledge of sequencing data management and analysis using available software such as construction of restriction maps, prediction of mRNA secondary structure, mRNA translation, and screening of various DNA and protein databases is also required.

A Ph.D. with 3-5 years experience is preferred, but we will consider MA or BS level individuals. Good interpersonal skills are required to supervise a research technician and interface effectively with other researchers for updating them on current developments in oligonucleotide technologies and sequencing data management. The pursuit of personal research interests will be strongly encouraged.

We offer a competitive salary and comprehensive benefits. Apply with curriculum vitae and minimum of three references to: Sotirios Karathanasis, Ph.D., Department Head, Molecular Cardiology, American Cyanamid Company, Lederle Laboratories, Pearl River, NY 10965. FAX: (914) 735-1978.

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Hoechst-Roussel Pharmaceuticals Inc., fast-growing subsidiary of Fortune 100 Hoechst Celanese, has an immediate opportunity for a creative problem solver to join the Neuroscience Group at its Bridgewater, NJ research facility.

In this challenging role you'll work with Interleukin 1 and other cytokines to investigate their roles in the neurodegenerative processes associated with Alzheimer's Disease. Your goal is to gain an understanding of cytokine receptor mediated signal transduction in neuronal systems, and to explore the potential for therapeutic intervention at the level of cytokine-signalling.

To qualify, you'll need a Ph.D. in Molecular Biology, Biochemistry or related discipline. Experience in molecular and receptor biology is essential. A background in cytokines, neurobiology and tissue culture will be a plus.

We offer an excellent salary, comprehensive benefits, including dental, and on-site fitness center. For prompt consideration, please send your resume with salary history/requirements to: Steven Scott, Section 3100, Hoechst-Roussel Pharmaceuticals Inc., Route 202-206, P.O. Box 2500, Somerville, NJ 08876-1258. An affirmative action employer M/F/H/V.

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Center for Molecular Biology

Wayne State University

ASSISTANT, ASSOCIATE AND FULL PROFESSOR - Applications and nominations are invited for university-funded research-track faculty positions at the assistant, associate or full professor level in the Center for Molecular Biology, an interdisciplinary program in the Division of Research and Graduate Studies. Research laboratories with excellent equipment and support facilities are located in the new Biological Sciences Building on the main campus of the University in proximity to one of the largest medical centers in the United States. Substantial start-up funds are available for these positions. The Center currently has nine full-time and three half-time primary faculty and will be undergoing substantial expansion during the next few years. Candidates should have a Ph.D. degree in molecular biology or a related area, or an M.D. or M.D./Ph.D. degree, and also have several years of postdoctoral training. The successful candidates will be expected to establish vigorous independent research programs that will be highly competitive for extramural funding. Candidates with interest and/or experience with promoting economic development through effective technology transfer are especially encouraged to apply. Applicants should send curriculum vitae, a brief description of current and future research interests (three to four pages), a bibliography and reprints of significant publications, and recommendations from at least three references by Nov. 30, 1991 to:

**Dr. Robert H. Rownd, Director
Center for Molecular Biology
Wayne State University
Biological Sciences Building
5047 Gullen Mall
Detroit, Michigan 48202**

Wayne State University is an equal opportunity/affirmative action employer and invites applications from all qualified individuals.

MICROBIOLOGIST

Kelco Division of Merck & Co., Inc., located in San Diego, CA, is a leading manufacturer of specialty polymers. We have an immediate opening in the Fermentation Section of Basic Research.

Selected candidate will conduct fermentation process development research with special emphasis on utilizing computerized process control strategies to optimize microbial polysaccharide production. To qualify, you should hold a BS in Microbiology or Biochemical Engineering or equivalent and have excellent oral and written communication skills. Operational knowledge of lab-scale fermentation equipment and computers (PC, VAX) is an advantage but this position is suitable for a new college graduate.

We offer an excellent salary and benefits package with ample opportunities for personal and professional growth. Please send resume with references in confidence to: **Ruth Algeo, Manager-Human Resources, Kelco Division of Merck & Co., Inc., 8355 Aero Drive, San Diego, CA 92123.**

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POSITIONS OPEN

Looking for individual with 5 to 10 years of experience in **INDUSTRY**, working with strain selection in fungal systems for the production of enzymes. Ph.D. in microbial genetics or physiology preferred! We are an aggressive growth-oriented company located in the Sunbelt which is looking to develop and build an international biotechnology company! Entrepreneurial environment with room for growth within the organization. Once in a lifetime opportunity if you are the person we are looking for!

Send résumé in confidence to: **Box 11, SCIENCE Classified Advertising, 1333 H Street, N.W., Room 940, Washington, DC 20005.**

University of California, Berkeley, Survey Research Center invites applications for **ASSISTANT RESEARCH BIOLOGIST I**. The successful candidate will work under supervision of two investigators to formulate and test mathematical models of the transmission dynamics of HIV infection in homosexual men, including: (1) testing of alternative models of change in sexual behavior among members of the San Francisco Men's Health Study cohort; (2) "sensitivity analysis" of such models; (3) study of the effects of sexual mixing patterns using simulation procedures. Prepare articles for submission to journals. Ph.D. in biology or related field. A non-Senate academic position starting 1 December 1991, with an annual salary of \$41,600 and an excellent benefits package. No interview or removal expenses are available. The initial appointment at 75% time is for 12 months with the possibility of extension. Send curriculum vitae and name/address of three references by 10 November 1991 to: **M. J. Ng, Survey Research Center, 2538 Channing Way, Berkeley, CA 94720. The University of California is an Equal Opportunity/Affirmative Action Employer.**

BIOCHEMISTRY. ASSISTANT RESEARCH BIOCHEMIST. Experience required in biochemical analysis, cell culture, HPLC operation, working knowledge of computer interface with analytical systems, experience in molecular genetic technology. M.D. or Ph.D. in biological sciences required. Salary related to established UCSD salary scales. Apply by 31 October 1991 to: **Dr. J. E. Seegmiller, Associate Director, Sam and Rose Stein Institute for Aging, University of California, San Diego, La Jolla, CA 92093-0613. Equal Opportunity/Affirmative Action Employer.**

PLANT ECOLOGIST

Ecophysiology with gas exchange, water relations, phenology, and computer fluency. Temporary, professional position (1 year, renewable) located in Corvallis, Oregon; \$31,116, GS-11. Considerable summer field-work may be required. Contact: **Dr. Nancy E. Grulke, Forestry Sciences Laboratory, 3200 S.W. Jefferson Way, Corvallis, OR 97331. Telephone: 503-750-7286.**

SENIOR RESEARCH CHEMIST. Research involving synthesis of novel peptides and other vascular disorders utilizing synthesis and optical resolution of complex, unusual α -amino acids. Separation of complex, multi-component mixtures. Purifying polar substances, e.g. peptides. Evaluate tissue and blood levels applying complex media such as blood or tissue extracts. Apply state of the art technology involving peptides and protein purification. Design and synthesis of biologically active agents. Investigate structure function relationships. Synthesis of novel unnatural amino acids; resolution of D-L-isomers. Conversion of amino acids. Utilize chromatographic and spectroscopic techniques. Requirements: Ph.D. organic chemistry; 4 years of experience as researcher with extensive experience in synthesis and optical resolution of complex amino acids in peptide synthesis and in separation of complex, multi-component mixtures including separation techniques to purify polar substances. Experience in separation of peptides from complex media and polypeptide synthesis by solid phase, solution and enzyme catalysis methods. Independent research and design in synthesis of biologically active agents and relationship with receptors. Background in isolation, purification and characterization of naturally occurring novel hormones from biological issues—chromatographic techniques, structure characterization and characterization of peptides. Forty hours per week; \$50,400 per year; résumé or curriculum vitae to: **Philadelphia Job Bank, 444 North 3rd Street, Philadelphia, PA 19123, JO #4430317. Must have proof of legal authority to work in the United States.**

POSITIONS OPEN

Nichols Institute's Reference facility, a leading innovator in laboratory technology, is seeking the following positions:

SENIOR RESEARCH SCIENTIST: The qualified candidate should possess a Ph.D. in biological sciences, with strong research interest and experience in steroid hormonal assays and chemiluminescent technology. Five years of research laboratory experience is preferred. A background with protein hormonal assays is a big plus. Will be responsible for the innovative research programs.

LABORATORY SUPERVISOR (POLYPEPTIDES): Candidates must possess a Ph.D. in biological sciences with prior experience with hormonal immunoassays; research experience in protein chemistry and chemiluminescence preferred. Reference laboratory management experience a plus. Responsibilities include performing R&D on peptide hormones, and management of the laboratory department. A commitment to quality and to staff is required.

We offer a competitive salary and benefits package. Please call or send résumé to: **NICHOLS INSTITUTE, Human Resources—Hazel Larsen, 33608 Ortega Highway, San Juan Capistrano, CA 92690-6130. Telephone: 1-800-NICHOLS; FAX: 714-728-4985. Equal Opportunity Employer.**

ANNOUNCEMENTS

THE REGIONAL CITIZENS' ADVISORY COUNCIL (RCAC) REQUEST FOR PROPOSAL ECOLOGICAL MONITORING

RCAC is a nonprofit independent regional citizens' advisory group formed after the Exxon Valdez oil spill as part of Alyeska Pipeline Service Company's new spill prevention and response plan for Prince William Sound. RFP No. SAC 91-1: Ecological Monitoring. Proposals are sought from qualified specialists to identify present and potential future impacts on the ecosystems of Prince William Sound and the Gulf of Alaska as a consequence of oil transportation. The proposed monitoring program will identify potential indicators of impacts in order to enable RCAC to develop mitigation measures. Deadline: 15 December 1991.

Pre-proposal packets are available upon request. Please contact: **Daphne Jenkins or Andrea Archer, Regional Citizens' Advisory Council, 601 West 5th Avenue, #500, Anchorage, AK 99501. Telephone: 907-277-7222; FAX: 907-277-4523.**

1992 SUMMER FELLOWSHIPS MOUNT DESERT ISLAND BIOLOGICAL LABORATORY

The Mount Desert Island Biological Laboratory (MDIBL), an internationally renowned marine facility for biomedical and comparative physiological research, invites applications for fellowships in the following categories:

• **YOUNG INVESTIGATOR FELLOWSHIPS**, sponsored by the Lucille P. Markey Trust and/or privately donated fellowship funds, are for scientists with a doctorate and evidence of independent research. Fellowship amount is based on individual needs and can include salary, laboratory space, housing, and funds for supplies and travel.

• **UNDERGRADUATE STUDENT-FACULTY FELLOWSHIPS** supported by the Pew Charitable Trusts, Burroughs-Wellcome and the Grass Foundation are available for undergraduate students with a minimum of 1 year of both biology and chemistry, for faculty members with Ph.D. actively teaching biology at the undergraduate level, and for student/faculty pairs with the same qualifications as above. Awardees may work from 1 to 4 months at MDIBL with senior scientists or, in the case of faculty or student/faculty pairs, may choose to work independently. Funding provides for housing, travel, research costs and salary: maximum faculty award is \$14,000 with up to \$6,000 salary; maximum student award is \$6,900 with up to \$2,400 salary.

Applications may be obtained by calling the office at 207-288-3605 or writing to: **MDIBL, P.O. Box 35, Salsbury Cove, ME 04672.**

Young investigator applicants write to **Department YIF**. Deadline for completed applications is 10 January 1992.

Undergraduate student-faculty applicants write to **Department USSF**. Deadline for completed applications is 9 December 1991.

POSITIONS OPEN

TECHNICAL SUPPORT POSITION

The Genetics Computer Group (GCG) is seeking an individual with a strong background in molecular biology/biochemistry, experience with computer operating systems and peripherals, and good interpersonal skills to provide technical support for the international community of scientists that use the GCG sequence analysis software package. Applicants must have a minimum of a master's degree in molecular biology or a related field. Submit curriculum vitae with references to: **Genetics Computer Group, Inc., 575 Science Drive, Suite B, Madison, WI 53711.**

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Statement required by the Act of 12 August 1970, Section 3685, Title 39, United States Code, showing the ownership, management, and circulation of:

1-6. *Science* is published weekly on Friday, except the last week in December, at 1333 H Street, NW, Washington, DC 20005. Date of filing: 30 September 1991. This is also the address of the publisher, the editor, and the managing editor, who are, respectively, Richard S. Nicholson, Daniel E. Koshland, Jr., and Monica M. Bradford.

7. The owner is American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Stockholders: None.

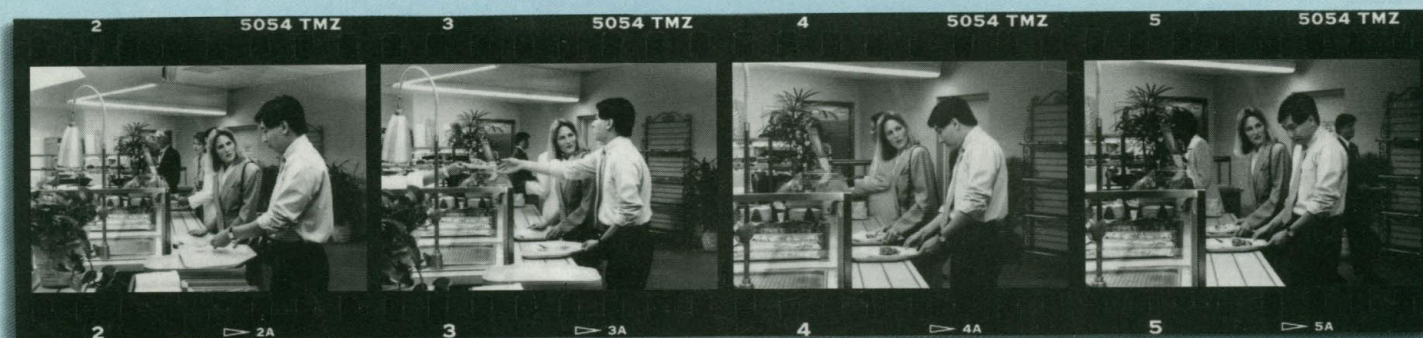
8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities: None.

9. The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during the preceding 12 months.

10. The average number of copies of each issue during the preceding 12 months is (A) Total number of copies printed: 162,010; (B) Paid circulation: (1) sales through dealers and carriers, street vendors, counter sales: None; (2) Mail subscriptions: 154,983; (C) Total paid circulation: 154,983; (D) Free distribution by mail, carrier, or other means: samples, complimentary, and other free copies: 2,828; (E) Total distribution: 157,811; (F) Office use, leftover, unaccounted, spoiled after printing: 4,199; (F 2) Returns from news agents: None; (G) Total: 162,010.

Actual number of copies of single issue published nearest to filing date are (A) Total number of copies printed: 160,000; (B) Paid circulation: (1) Sales through dealers and carriers, street vendors, counter sales: None; (2) Mail subscriptions: 151,274; (C) Total paid circulation: 151,274; (D) Free distribution by mail, carrier, or other means: samples, complimentary, and other free copies: 4,284; (E) Total distribution: 155,558; (F) Office use, leftover, unaccounted, spoiled after printing: 4,442; (F 2) Returns from news agents: None; (G) Total: 160,000.

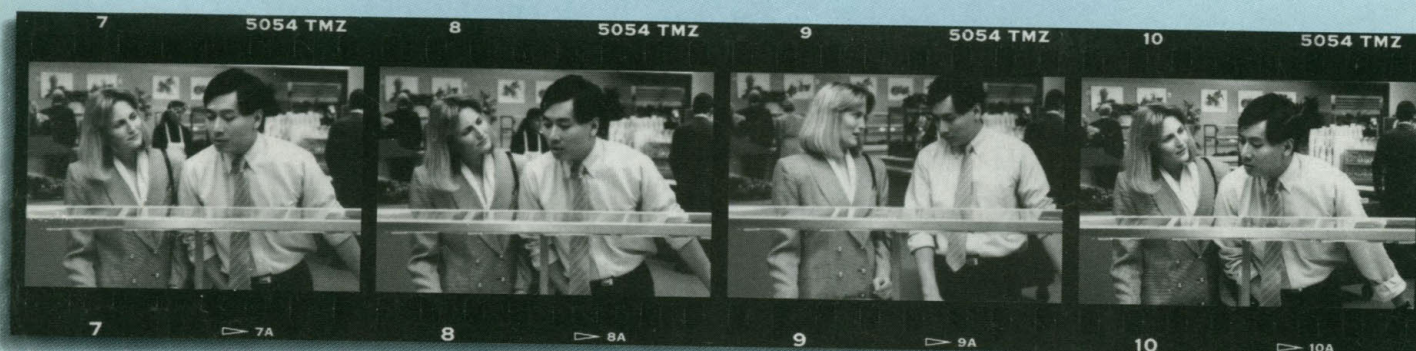
I certify that the statements made by me above are correct and complete. (signed) **Michael Spinella, Director, Membership/Circulation.**



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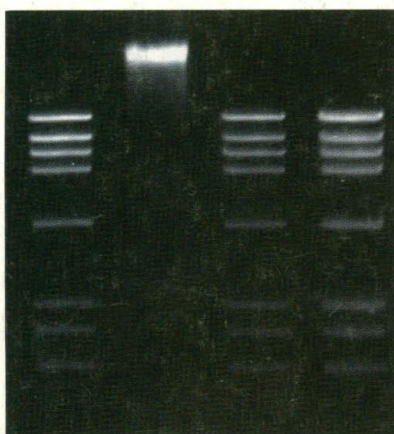
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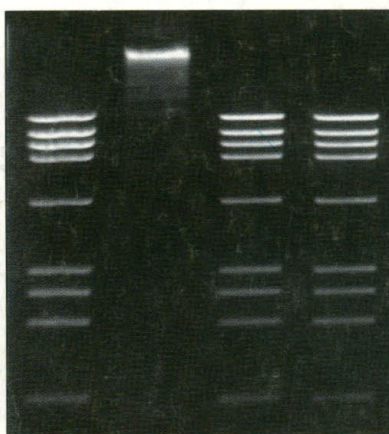
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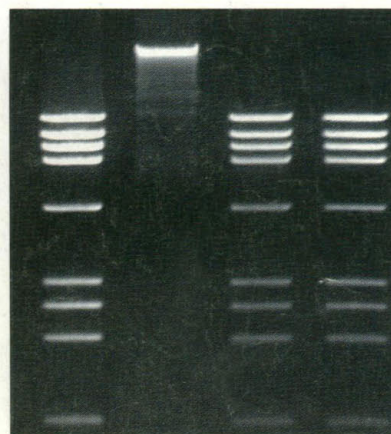
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Having The Best Response Time Makes A Difference.

To provide immediate shipping and eliminate the time change between the East and West Coasts, VWR stocks IBI biologicals at three U.S. locations. With 250 representatives nationwide, you can count on personalized attention and timely response.

Having The Best Guarantee Makes A Difference.

Our promise is simple. IBI enzymes perform to their stated specifications

or you get a credit for twice the value of your purchased product.

Your Satisfaction Makes A Difference.

We're taking service very seriously. After all, when product quality, price and selection are the same, getting the best service makes all the difference.

For additional information, please contact IBI Technical Resources at (800) 243-2555 or your local VWR Sales Office. Outside of the U.S., contact the IBI International Sales Department at (203) 786-5600 for the name of the distributor nearest you.



INTERNATIONAL BIOTECHNOLOGIES, INC.
Subsidiary of Eastman Kodak Company
P.O. Box 9558, New Haven, CT 06535

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VWR Scientific

A VWR COMPANY

† Lane 1: *Kpn* I cut Adenovirus Type 2 DNA, 5 Units/μg DNA; Lane 2: ligated product; Lane 3: ligated product recut with 5 U *Kpn* I/μg DNA; Lane 4: overdigest, 30 U/μg DNA.
If you would like to review the specifics of these assays or know which companies were involved, contact one of the numbers listed.

Circle No. 209 on Readers' Service Card