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High Voltage is a newsletter specializing in reference material to promote the technique of capillary electrophoresis. A recent issue features a technical article discussing the alternative of choosing a surface-modified capillary when a low ionic strength buffer or a volatile buffer might be preferred as a separation medium. Other articles include one on the separation of globin chains and a question and answer section on such topics as the proper way to store a coated column. J&W Scientific. For information call 916-985-7888 or circle 148 on the reader service card.

Comments is a newsletter for scientists in the field of nucleic acid research. A recent issue focuses on DNA sequencing, with indepth articles describing the use of Thermo Sequenase thermostable DNA polymerase alongside energy transfer primers—a combination that offers high throughput sequencing. A "lab notes" section answers common questions on the use of the recently launched DYEnamic energy transfer primers in fourcolor fluorescent sequencing. Amersham. For information call 800-323-9750 or circle 149 on the reader service card.

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Please send curriculum vitae, description of research interests and the names and addresses of at least three referees by March 31, 1997 to: Cellular Neurobiology Search, c/o Chair, Biology Department, Yale University, P.O. Box 208103, New Haven, CT 06520-8103.

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UCSF is an Affirmative Action/Equal Opportunity Employer. The University undertakes affirmative action to assure equal employment opportunity for underutilized minorities and women, for persons with disabilities, and for Vietnam-era veterans and special disabled veterans.

#### UNIVERSITY OF VICTORIA SCHOOL OF EARTH AND OCEAN SCIENCES THREE YEAR TERM POSITION IN CLIMATE DYNAMICS/PHYSICAL OCEANOGRAPHY

A three-year term position at the ASSISTANT PRO-FESSOR level is available in the School of Earth and Ocean Sciences, University of Victoria. The successful applicant will be expected to teach undergraduate courses in the area of Introductory Atmospheric Sciences and Physical Oceanography as well as graduate courses in the area of Ocean and Climate Dynamics and/or Numerical Modelling. The successful applicant will have the opportunity to interact with graduate students and research associates in the School and will be expected to develop collaborations with the Canadian Center for Climate Modelling and Analysis on campus. Significant computer resources will be made available to the successful applicant. Applicants must have a Ph.D. and demonstrated research experience in the area of climate dynamics and physical oceanography.

À curriculum vitae and the names and addresses of three referees should be sent by April 30, 1997 to: Dr. Chris Barnes, Director, School of Earth and Ocean Sciences, University of Victoria, P.O. Box 3055, Victoria, B.C. V8W 3P6 Canada. FAX: 250-721-6200. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. However, if suitable Canadian applicants cannot be found, other individuals will be considered. The University of Victoria is an employment equity employer and encourages applications from remen, aboriginal peoples, visible minorities and persons with disabilities.

#### DEVELOPMENTAL BIOLOGIST

The University of Nevada invites applications for a 12month tenure-track ASSISTANT PROFESSOR joint appointment in the Departments of Biology and Biochemistry. We seek individuals using molecular approaches and animal model systems to study contemporary problems in developmental biology. Candidates must have at least two years of postdoctoral experience and demonstrate potential to obtain extramural funding. Responsibilities include participation in the undergraduate and graduate teaching programs of the Biology and Biochemistry Departments. Applicants should submit a letter out-lining research and teaching interests, a current curriculum vitae, copies of three publications, and names, addresses, Email, and telephone numbers of four references to: Dr. Ardythe McCracken, Chair, Search Committee, Department of Biology/200, University of Neva-da, Reno, NV 89557. Review of applications begins May 1, 1997. The University of Nevada is an Equal Opportunity/Affirmative Action Employer.

### POSITIONS OPEN

#### ASSISTANT PROFESSOR PHARMACOLOGY AUBURN UNIVERSITY

The Department of Pharmacal Sciences at Auburn University's School of Pharmacy invites applications for a 12-month tenure-track faculty position in pharmacology at the ASSISTANT PROFESSOR level. Auburn University is a land grant university which has the only publicly funded School of Pharmacy in Alabama. The University places a high priority on quality undergraduate and professional education and maintains a tradition of excel-lence in research, graduate education, outreach and service. The Baccalaureate of Pharmacy, Doctor of Pharmacy, Masters of Science and Doctor of Philosophy degrees are currently offered. Candidates must have a demonstrated interest in education of health care professionals and must have a Ph.D. or equivalent degree in pharmacology or a related discipline. Preference will be given to candi dates with postdoctoral experience in neuropharmacology, cardiovascular pharmacology, or biochemical pharmacology. A professional degree in Pharmacy and/or affili-ation with a School of Pharmacy is desirable but not essential. The successful candidate will teach pharmacology to professional Pharmacy students and graduate students. The candidate will be expected to develop and maintain an independent and extramurally-funded re-search program and develop graduate courses in his/her area of expertise. Desire and ability to collaborate with other faculty is important. Review of applications will begin immediately. The position will be available August 1, 1997. Candidates should submit a letter of application, curriculum vitae, a detailed description of research goals, and three letters of refernce to:

Dr. M. E. Hamrick, Chairperson Pharmacology Search Committee Department of Pharmacal Sciences 401 Pharmacy Building Auburn University, AL 36849–5503 Email: hamrime@mail.auburn.edu Telephone: 334-844-8328; FAX: 334-844-8353 Auburn University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

#### MOLECULAR BIOLOGIST/GENETICIST

The Department of Biochemistry and Molecular Biology at the University of Louisville School of Medicine wites applications for a tenure-track ASSISTANT PROFEŜŜOR posítion. Candidates must hold Ph.D. or equivalent degree, have at least two years of postdoctoral training, and be highly capable in research and teaching. This position is associated with a newly established, interdisciplinary Center for Genetics and Molecular Medicine. Individuals working in the areas of human genetics (including gene mapping and positional cloning), genomics and genetic alterations of model organism (especially mammals) are particularly encouraged to apply. Shared facilities to support molecular biology, including automated DNA sequencing, and computing resources dedicated to the Center are available. The successful applicant will be expected to develop and maintain an independent, funded research program and to participate in the training of medical and graduate students. Aspects of human bi ology/genetics that are currently under study in the department include environmental biochemistry, mapping of QTLs influencing behavior, gene expression, and the molecular mechanism of cancer. Interested individuals should submit a curriculum vitae, list of four individuals familiar with the applicant's qualifications, and a brief statement of research interests to: Search Committee, Department of Biochemistry and Molecular Biology, University of Louisville School of Medicine, Health Sciences Center, Louisville, KY 40292. Applications will be accepted up to May 15, 1997 or until a suitable candidate is identified. The University of Louisville is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR: The Department of Physiology at the Ponce School of Medicine invites applications for a faculty position at the level of ASSISTANT PROFESSOR. We are seeking individuals with a Ph.D. or equivalent and postdoctoral experience. The successful candidate will be expected to participate in the medical and graduate student programs and to develop an independent research program. Review of candidates will begin immediately. Send curriculum vitae, a statement of goals, and names and addresses of three references to: Dr. Howard Mass, Chairman, Physiology Department, Ponce School of Medicine, P.O. Box 7004, Ponce, PR 00732.





## The Society for Biomolecular Screening

3rd Annual Conference and Exhibition

September 22-25, 1997 Sheraton Harbor Island Resort and Marina, San Diego, CA

## **Call for Papers**

Abstracts for oral presentation are being accepted through May 15, 1997 and will be selected on the basis of originality and merit. Papers received after this date will be considered for poster presentation. Abstracts should be submitted to the SBS Office for distribution to the Program Committee.

## **Short Courses**

Three one-day educational courses have been designed to increase awareness on: Assay Design (Directors: Mark Lister, Sphinx Pharmaceuticals and Krishna Kodukula, Bristol-Myers Squibb); Automation, Robotics and Data Handling for HTS (Directors: Carol Homon, Boehringer Ingelheim Pharmaceuticals and Derek Hook, NPS Pharmaceuticals); and Genomics (Directors: TBA). Courses will run from 8:00 am to 5:00 pm and each class size is limited to 30 participants.

## **Technical Program and Commercial Exhibits**

Tuesday, September 23, 1997 Session 1: Assay Platforms Session 2a: Toxicological & ADME Surrogate Targets Session 2b: Agricultural Screening Wednesday, September 24, 1997 Session 3: Diversity Analysis Session 4: Focus Session Miniaturization, Genomics

Thursday, September 25, 1997 Session 5: Bioinformatics Session 6: Automation

### **Contacts:**

Send Paper and Poster Abstracts to: Society for Biomolecular Screening 36 Tamarack Avenue, Suite 348 Danbury, CT 06811 USA

Tel: (203) 743-1336 Fax: (203) 748-7557 Email: sbsemail@aol.com Exhibitor Registration Information in the USA Sylvia Zamperin, Sagian (317) 328-3588 Fax: (317) 328-3589 Email: zampersm@sagian.com

For European Exhibitors: Martine Ruprecht, Beckman International (Switz) Tel: 41 22 994 0707 Fax: 41 22 994 0700

Visit our home page at WWW.SBSONLINE.ORG for forms and meeting details.

#### POSITIONS OPEN

#### ASSISTANT OR ASSOCIATE PROFESSOR CELLULAR/MOLECULAR PATHOGENESIS OF INFECTIOUS DISEASES OF ANIMALS

Tenure-track, twelve-month position for an outstanding **SCIENTIST** to explore the mechanisms of infectious diseases and/or host immune mechanisms. Successful candidate will establish a research program in an area of immunology, microbiology, or virology which complements existing strengths in infectious diseases of animals. Candidates must have demonstrated excellence and productivity in research and have interest in graduate education. Ph.D. required. Postdoctoral experience and a professional degree (D.V.M., M.D., or equivalent) desirable. The primary appointment will be in the Department of Veterinary and Biomedical Sciences with a joint appointment in the School of Biological Sciences. Submit a curriculum vitae, statement of research plans, and the names and addresses of three references postmarked by May 1, 1997 (or until suitable candidate is found) to: **Dr. John A. Schmitz**, Department of Veterinary and Biomedical Sciences, University of Nebraska-Lincoln, P.O. Box 830905, Lincoln, NE 68583-0905. Telephone: 402-472-2952. University of Nebraska-Lincoln is committed to a pluralistic campus community through Affirmative Action/Equal Opportunity, is responsive to the needs of dual career couples, and assures reasonable accommodation under the Americans with Disabilities Act. Contact Dr. Schmitz for additional information.

#### PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE DEPARTMENT OF PHARMCEUTICAL SCIENCES DIVISION OF PHARMACOLOGY AND TOXICOLOGY

The Division of Pharmacology and Toxicology is seeking applicants for a position at the rank of **ASSISTANT PROFESSOR**. The position is non-tenure-track but may be converted to tenure-track at a later date. Applicants must possess a Ph.D. in pharmacology, toxicology or a related discipline. The successful candidate must have a strong commitment to undergraduate and graduate teaching, and should be involved in research. Applicants should forward a letter describing their career interests, a curriculum vitae, and arrange to have three letters of recommendation sent to: **Ruy Tchao**, Ph.D., Chair of the Search Committee, Department of Pharmaceutical Sciences, Philadelphia College of Pharmacy and Science, 600 South Forty-third Street, Philadelphia, PA 199104. Review of applications will begin on April 21, 1997, and continue until the position is filled.

The Philadelphia College of Pharmacy and Science is an Equal Opportunity (Affirmative Action Employer with a strong commitment to racial, cultural, and ethnic diversity. Nominations of and applications of individuals from a broad spectrum of backgrounds are encouraged.

The Department of Pathobiology is taking applications for two faculty positions as **REGULAR OR RE-SEARCH ASSISTANT, ASSOCIATE OR FULL PROFESSOR**. The regular positions will be tenure-track faculty positions. Successful candidates must have a doctoral degree and publication record demonstrating research productivity in viral or bacterial pathogens from an immunological and/or host-pathogen interaction perspective with a minimum of two years of postdoctoral experience. Applicants with established research programs, are encouraged to apply. Duties of successful applicants will be to maintain dynamic research programs and to participate in the graduate (M.S. and Ph.D.) teaching programs. Send curriculum vitae, a minimum of four professional references and concise statement of research interests to:

#### Search Committee Department of Pathobiology, Box 357238 University of Washington Seattle, WA 98195-7238

The application deadline for these positions is April 28, 1997.

The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. Affirmative Action/Equal Opportunity Employer.

#### POSITIONS OPEN

#### UNIVERSITY OF CALIFORNIA SAN DIEGO SCHOOL OF MEDICINE DEPARTMENT OF NEUROSCIENCES

The Department of Neurosciences is seeking applications and nominations for a tenure-track or tenured position at the ASSISTANT, ASSOCIATE or FULL PROFESSOR level. The candidate must be an accomplished scientist and a recognized leader in neurogenetics, systems neurophysiology, developmental neurobiology, neuroimmunology, or neuroimaging and have proven ability as a scholar and a teacher. The candidate's experience will dictate the level of appointment.

The candidate should enjoy interactions with colleagues both in the Department of Neurosciences and throughout the La Jolla community.

Applications should be submitted prior to June 30, 1997. Salary will be commensurate with rank and experience and will be based on University of California pay scales, Curriculum vitae and bibliography should be sent to:

> R. Glenn Northcutt, Ph.D. Chair, Neurosciences Search Committee c/o Peggy Chambers Department of Neurosciences University of California San Diego School of Medicine 9500 Gilman Drive La Jolla, CA 92093-0624

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

#### TENURE-TRACK FACULTY POSITION IN PHARMACOLOGY

The Department of Pharmacology at the University of Vermont College of Medicine invites applications for tenure-track positions in Pharmacology (ASSISTANT/AS-SOCIATE/FULL PROFESSOR). Candidates should have a Ph.D. or M.D. degree with at least two years of postdoctoral training. Applicants at the Associate/Full Professor level must have a funded and productive research program and demonstrated excellence in teaching, scholarship, and service. All candidates should have a record of research accomplishment using molecular, cellular, or genetic approaches that will complement existing research strengths which include vascular ion channel function, cellular signaling, biological imaging and regulation of cell proliferation/celld death. The successful candidate will be expected to pursue an extramurallyfunded, independent research program and must be committed to excellence in teaching. Applicants should submit a curriculum vitae, statement of research objectives and career goals, and have three letters of reference sent to: Search Committee, Department of Pharmacology, College of Medicine, University of Vermont, Burlington, VT 05405. The deadline for receipt of applications is May 31, 1997

The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and people from diverse racial, ethnic, and cultural backgrounds are encouraged to apply.

#### ANIMAL PHYSIOLOGICAL ECOLOGIST

The Department of Biology at the University of Central Florida invites applications for a tenure-track faculty position at the ASSISTANT PROFESSOR level. Applicants should possess research expertise in investigating ecological or evolutionary processes at the physiological level. Candidates will be expected to develop an externally-funded research program with a significant field component. Teaching responsibilities will involve a seniorlevel course in animal physiology and graduate offerings in environmental physiology and a specialty course. Ph.D. and at least one year of postdoctoral experience are required. Applicants may apply by sending a curriculum vitae and statement of research and teaching interest to: I. Jack Stout, Chair, Search Committee, Department of Biology, 4000 Central Florida Boulevard, University of Central Florida, Orlando, FL 32816–2368. Applications must be received by April 25, 1997. The success ful candidates expected to assume duties January 1, 1998. Equal Opportunity/Affirmative Action Employer. Search materials available for public review upon request.

ASSISTANT PROFESSOR: Teach microbiology, virology, immunology. Two-year position. Send curriculum vitae, three letters of reference, and evidence of teaching excellence by April 15 to: Drew University, Biology Department, Search Committee, Madison, NJ 07940. Applicants who need accommodations for an interview should request this in advance. Equal Opportunity Employer/ Affinative .Ation.

## POSITIONS OPEN

#### ENVIRONMENTAL SOIL SCIENTIST

The Department of Environmental Sciences at Rutgers—The State University of New Jersey, invites applications for a tenure-track position at the level of **ASSISTANT PROFESSOR** in the area of environmental soil processes. Priority will be given to those with expertise in soil chemistry but other sub-disciplines of soil science will be considered. The appointment carries the responsibility to teach a general soils course and laboratory plus an upper level undergraduate and/or graduate course in a soils specialty.

Course in a soils specialty. The successful applicant will be expected to develop a well-funded, nationally-recognized research program. Postdoctoral and teaching experience are desirable.

Applications should include a statement of teaching and research interests; a detailed curriculum vitae (including grant funding history); and names and addresses (telephone and electronic) of three references. Applications should be addressed to: Soils Search Committee Chair, Department of Environmental Sciences, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903-0231. Telephone: 908-932-9185; FAX: 908-932-8644. Review of applications will begin on May 15 and continue until a suitable applicant is selected.

Rutgers University is an Equal Opportunity/Affirmative Action Employer.

CONTRACTOR OF THE OWNER

#### ANDROGEN RECEPTOR AND AR CO-FACTORS IN PROSTATE CANCER

Several positions at the **RESEARCH ASSISTANT PROFESSOR/PREDOCTORAL/POSTDOCTO-RAL** levels are available immediately to study the molecular mechanisms of androgen receptor (AR), AR co-activators/co-repressors and orphan nuclear receptors in prostate cancer in **Dr. Chawnshang Chang's** laboratory (cloning of AR, orphan receptors and AR co-activator, ARA70).

For references, please see our last 10 publications in *JBC/PNAS* published during 1995–1996. Experience in protein purification, gene expression, transcriptional regulation, protein-protein or protein-DNA interactions preferred. Send curriculum vitae and names of two references to: Dr. C. Chang, George Whipple Professor, Director of Molecular Oncology, University of Rochester Medical Center, 601 Elmwood Avenue, Box 626, Rochester, NY 14642. Telephone: 608-263-0899; FAX: 608-263-8613.

#### FACULTY POSITION MICROVASCULAR AND/OR CEREBROVASCULAR PHYSIOLOGY OREGON HEALTH SCIENCES UNIVERSITY

Candidates are sought for a non-tenured faculty position at the rank of **ASSISTANT** or **ASSOCIATE PRO-FESSOR** in the Division of Neurosurgery. The successful candidate will be expected to develop an independent vascular research program and to collaborate with clinical faculty in the Division. Individuals with an interest in microvascular or cerebrovascular physiology are encouraged to apply. Interested applicants should submit curriculum vitae, statement of research interests and names of three references to:

> Johnny Delashaw, Jr., M.D. Division of Neurosurgery L-472 3181 SW Sam Jackson Park Road Portland, OR 97201

#### HUMAN ANATOMIST

The Biology Department of Gannon University is seeking an ASSISTANT PROFESSOR to teach Human Anatomy. Additional courses may include a combination of Anatomy and Physiology, Freshman Biology, Physiology, Neurobiology, and a course in area of expertise. Candidates must have earned a Ph.D., formal preparation in human cadaver anatomy, and a strong commitment to undergraduate teaching. Research in area of expertise will be encouraged. Position available August 1997. To apply, send letter of application, curriculum vitae, and three letters of recommendation to: Director of Human Resources, Gannon University, 109 University Square, Erie, PA 16541. FAX: 814-871-7514; Email inquiries: gustafson\_d@knight.gannon.edu. Affirmative Action/Equal Opportunity Employer. Ribozyme Pharmaceuticals, Inc., a leader in the development of ribozyme-based products for pharmaceutical and agricultural applications, is currently seeking qualified research professionals to apply their skills at our state-of-the-art facility in Boulder, Colorado. Successful candidates will possess excellent communication skills and the ability to interact with an interdisciplinary team.

#### PhD Functional Genomics

The successful candidate will manage outside collaborations and lead an internal team of cell biologists to develop cell culture assays designed to examine gene function.

Applicants must have a PhD, 3 or more years of industry experience, and established leadership ability. Job #73

#### Scientist, Bioinformatics

Will manage the information required to convert ribozymes into human therapeutic agents. Will analyze potential ribozyme sites in target sequences, design ribozymes, catalog and track both the sequence and the resultant experimental data, and automate this process with a goal of achieving high-throughput combinatorial screens.

Successful candidate will have a PhD or BS/MS with at least 2 years' biocomputing experience. Demonstrated experience in DNA sequence analysis and in the design, implementation, and maintenance of annotated sequence databases. Preference will be given to individuals having programming experience in C, SQL, Perl, and/or CGI, as well as HTML page design. Experience with UNIX system administration (IRIX) and a familiarity with the Mac and Windows operating systems are highly preferred. Job #74

#### Post Doctoral Fellow, Cell Biology

Will develop and optimize cell-based assays and test the activity of ribozymes in cell culture.

Successful candidate will have a PhD and experience in assay development, signal transduction, and automation. Experience with lipofection and alternative oligonucleotide delivery methods would be a further asset. Job #75

#### **Research Associate**, Biochemistry

Successful candidate will have a BS/MS with 4+ years of broad experience with nucleic acid biochemistry. Experience with enzyme kinetics, PCR, or cloning is desirable. Previous experience in the biotechnology field is also an advantage. Job #77

#### PhD Biochemistry

Will identify and characterize novel nucleic acid catalysts.

Qualifications include a PhD in Biochemistry or related field and 2+ years of related experience. Hands-on experience in combinatorial chemistry or *in vitro* evolution is highly desirable. Job #76

#### PhD Pharmacologist

Ideal candidate will be a PhD-level pharmocologist with 3-5 years of postdoctorate experience. Applicants must have demonstrated expertise in designing and conducting pharmacodynamic experiments in animals. Experience in models of ocular disease, inflammation, and/or cancer pharmacology is desirable. Job #78

#### **Research Associate**

Successful candidate will possess a BS or MS degree in Biochemistry, Molecular Biology, or related discipline with 1-4 years of postgraduate experience. Experience in one or more of the following areas is preferred: assay development, formulation development, cell biology; techniques related to the handling and analysis of oligonucleotides. Job #80

#### PhD Drug Delivery

Requires a PhD with 2-7 years of postgraduate experience in the area of nucleic acid delivery. Hands-on experience in formulations development is required with an emphasis toward enhancing drug exposure in animal models. Experience in lipid or polymer-based delivery systems, particularly liposomes and bioerodible matrices, is highly preferred. Job #79

#### Post Doctoral Fellow, Bioorganic Chemistry

Versatile bioorganic chemist will assist in our program of developing RNA catalysts.

Ideal candidate will have a PhD and hands-on experience in synthesis and purification of modified nucleosides and nucleotides. Experience in RNA biochemistry including template-directed polymerization is desirable. Job #081

We offer a competitive salary and benefits package, including a stock option plan. If you meet or exceed the above qualifications, please send a *Curriculum Vitae* and the names of three references to:

Ribozyme Pharmaceuticals, Inc., Job # (indicate appropriate Job # within address), 2950 Wilderness Place, Boulder, CO 80301; fax 303-449-6995; e-mail: jobs@rpi.com

No phone calls accepted. We are an Equal Opportunity Employer.

Web site: www.rpi.com

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Working on the molecular level to conquer, treat, or prevent debilitating diseases.

## INFECTIOUS DISEASES DISCOVERY RESEARCH AT SCHERING-PLOUGH

At the Schering-Plough Research Institute, scientists are discovering innovative therapeutic agents that challenge humankind's most debilitating diseases. If you are seeking an opportunity to be on the cutting edge of exploratory pharmaceutical discovery, become part of an advanced multidisciplinary research group focused on infectious diseases.

#### Senior/Associate Principal Scientist Chemotherapy and Molecular Genetics

The senior level scientist we seek will use existing *in vivo* models of bacterial and fungal infections, set up new *in vivo* models and utilize genetically altered strains to understand pathogenesis for drug screening. In addition to a PhD, candidates should have 2 or more years of experience working with animals, and knowledge of microbiology and immunology. Experience in molecular biology or bacterial or yeast genetics is an asset.

We offer an excellent compensation package including a competitive salary and comprehensive benefits. For prompt, confidential consideration, we invite you to forward a resume with salary requirements to: Human Resources-DMS, Dept. DD9719/DL-DS, Schering-Plough Research Institute, 2015 Galloping Hill Road, K-15, Kenilworth, NJ 07033-0539. You may also respond via e-mail to: spri@spcorp.com. Please include the Department Code for your position of interest in the Subject Line. We are an equal opportunity employer. We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.





#### Head, Division of Solid Tumor Oncology Memorial Sloan-Kettering Cancer Center

Memorial Sloan-Kettering Cancer Center is seeking an individual to direct its strong program in Solid Tumor Oncology. The Division of Solid Tumor Oncology consists of five Services (Genitourinary Oncology, Gastrointestinal Oncology, Thoracic Oncology, Breast Cancer Medicine, and Developmental Chemotherapy) with approximately 40 physicians with related clinical and/or research responsibilities focused on solid tumors. The Head of the Division of Solid Tumor Oncology will be in a position to interact with ongoing programs in clinical and laboratory investigation at the Center and to collaborate with members of the neighboring academic medical community. Board certification in internal medicine and medical oncology are required.

Candidates or nominators should send curriculum vitae and list of publications to:

Joseph R. Bertino, M.D. Chairman, Search Committee Memorial Sloan-Kettering Cancer Center 1275 York Avenue New York, NY 10021

- MSKCC is an Affirmative Action, Equal Opportunity Employer -

**Chugai Biopharmeceuticals, Inc. (CBI)**, committed to the discovery, development, and successful commercialization of innovative therapeutic products, has the following opportunity:

#### **SR. RESEARCH SCIENTIST**

CBI is establishing a drug discovery program in cancer with an emphasis on apoptosis, and seeks a bench scientist with familiarity and experience of established laboratory procedures in cancer cell biology; will have current knowledge of scientific literature in the relevant research areas. The incumbent will implement and conceive drug discovery projects. Position requires a Ph.D. degree in molecular, cellular, or related scientific discipline with 4+ years' post Ph.D. experience. The candidate will have a strong record of scientific accomplishments as indicated by publications. Supervisory experience required. Pharmaceutical industry experience preferred.

CBI offers an exciting work environment, excellent benefits and competitive salaries. Please send resume to: CBI Human Resources Dept/Ref.# T96-22, 6275 Nancy Ridge Dr., San Diego, CA 92121. CBI supports a drug-free environment. We are an Equal Opportunity Employer.



**CBI** CHUGAI BIOPHARMACEUTICALS, INC.

A pivotal aspect of our pharmaceutical research is the way we process, store and share information

## RESEARCH INFORMATION SYSTEMS AT SCHERING-PLOUGH



At the Schering-Plough Research Institute, we recognize the key role Information Systems plays in efficiently bringing pharmaceuticals to market. In fact, there is not a single aspect of our global operations that is not touched by advancements in the way we process, store or share information. It's a competitive edge we maintain by investing in state-of-the-art technology and the insightful professionals who optimize their application.

Excellent opportunities are now available for talented problem-solvers who can partner with scientific users and help them achieve their goals.

## **SENIOR SYSTEMS ANALYST - Chemistry**

You will play a key role in providing application solutions to enable our chemists to meet their scientific and business objectives more effectively. In addition, you will support initiatives in combinatorial chemistry, Computer Aided Drug Design and High Throughput Screening. To qualify, you will need a degree in Computer Science or Chemistry, a strong interest in scientific programming and experience with C++, Perl and UNIX. Background in scientific database development (ORACLE), Graphical User Interface development (OMNI 7/PowerBuilder), Macintosh/Applescript programming and HTML development is desirable. To be considered for this position, please reference Dept. RI9617-KW/DS.

## **SENIOR SYSTEMS ANALYST - Bioinformatics**

Expansion of our Bioinformatics Program creates a unique opportunity for a scientific programmer to provide software support to Internal Bioinformatics initiatives. Major programming emphasis will be on the design of database applications for Genomic and functional biology information and programming interfaces enabling biologists to easily understand and manipulate these databases. To qualify, you will need a degree in Math, Computer Science or Biological Science, strong UNIX-based skills, Perl programming experience (C++ helpful) combined with knowledge of relational databases, SQL and basic concepts of molecular biology. Knowledge of HTML is desirable. To be considered for this position, please reference Dept. RI9610-KW/DS.

We offer an excellent compensation package including a competitive salary and comprehensive benefits. For prompt, confidential consideration, we invite you to forward a resume indicating the Dept. Code for your position of interest and salary requirements to: Human Resources-DMS, Schering-Plough Research Institute, 2015 Galloping Hill Road, K-15, Kenilworth, NJ 07033-0539. You may also respond via e-mail to: spri@spcorp.com. Please include the Department Code for your position of interest in the Subject Line. We are an equal opportunity employer. We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.



**Using Science for Human Advantage** 

#### DEPARTMENT OF ENERGY Human Genome Program Announcement Ethical, Legal, and Social Implications

Energy Research Financial Assistance Program Notice 97-11: Human Genome Program - Ethical, Legal, and Social Implications

ACTION: Notice inviting grant applications

SUMMARY: The Office of Health and Environmental Research (OHER) of the Office of Energy Research (ER), U.S. Department of Energy (DOE), hereby announces its interest in receiving applications in support of the Ethical, Legal, and Social Implications (ELSI) subprogram of the Human Genome Program (HGP). The HGP is a coordinated, multi disciplinary, directed research effort aimed at obtaining a detailed understanding of the human genome at the molecular level. This particular research notice invites research grants that address ethical, legal, and social implications from the use of information and knowledge resulting from the HGP.

**DATES:** Preapplications referencing Program Notice 97-11 should be received by April 17, 1997. Formal applications submitted in response tothis notice must be received by 4:30 p.m., E.D.T., July 10, 1997, to permit timely consideration for awards in Fiscal Year 1998.

ADDRESSES: Preapplications referencing Program Notice 97-11 should be sent to Dr. Daniel W. Drell, Health Effects and Life Sciences Research Division, ER-72, Office of Health and Environmental Research, Office of Energy Research, U.S. Department of Energy, 19901 Germantown Road, Germantown, MD 20874-1290. Formal applications referencing Program Notice 97-11 should be forwarded to: U.S. Department of Energy, Office of Energy Research, Grants and Contracts Division, ER-64, 19901 Germantown Road, Germantown, MD, 20874-1290. ATTN: Program Notice 97-11. This address also must be used when submitting applications by U.S. Postal Service Express Mail or any commercial mail delivery service, or when hand carried by the applicant.

FOR FURTHER INFORMATION CONTACT: Dr. Daniel W. Drell, Health Effects and Life Sciences Research Division, ER-72, Office of Health and Environmental Research, Office of Energy Research, U.S. Department of Energy, 19901 Germantown Road, Germantown, MD 20874-1290, phone: (301) 903-6488 or E-mail: daniel.drell@oer.doe.gov.

SUPPLEMENTARY INFORMATION: Please note the information in this section has been abridged. Individuals considering preparation of a grant application should refer to the complete program notice found via the World Wide Web at: http://www.er.doe.gov/production/grants/ fr97\_11.html. The DOE encourages the submission of applications that will address, analyze, or anticipate ELSI issues arising from advances in the scientific understanding of genetically influenced susceptibilities/sensitivities, complex or multi-genic characteristics and conditions, and human polymorphisms. This may include research on privacy and confidentiality issues (as well as ownership and commercialization issues) arising from the creation, use, maintenance, and disclosure of genetic information relevant to such complex or multi-genic conditions. This may also include research on the privacy implications of the development of HGP materials, resources, databases and technologies, as well as the privacy implications of the use of genetic information obtained in the workplace.

All applications should demonstrate knowledge of the relevant literature, and should include detailed plans for the gathering and analysis of factual information and the associated ethical, legal, and social implications. The DOE also solicits applications for the preparation and dissemination of educational materials in any appropriate medium that will enhance understanding of the ethical, legal, and social aspects of the HGP among the public or specified groups; a particular interest of this notice is Institutional Review Boards (IRBs) and genome investigators who work with patients. Educational and conference applications should demonstrate awareness of the relevant literature, and include detailed plans for the accomplishment of project goals.

In all applications, a clear description of expected products or "deliverables" should be included, as well as a time line for their production and dissemination. In the absence of tangible products, rigorous assessments must be included to facilitate evaluation of progress. DOE does not encourage applications dealing with issues consequent to the initiation or implementation of genetic testing protocols. Also, DOE does not encourage survey-based research. The dissemination of materials and research data in a timely manner is essential for progress towards the goals of the DOE Human Genome Program. The OHER requires the timely sharing of resources and data.

Potential applicants are strongly encouraged to submit a brief preapplication that consists of two to three pages of narrative describing the research project objectives and methods of accomplishment. These will be reviewed relative to the scope and research needs of the DOE's Human Genome Program. Principal investigator address, telephone number, FAX number and E-mail address are required parts of the preapplication. A response to each preapplication discussing the potential program relevance of a formal application generally will be communicated within 20 days of receipt. ER's preapplication policy for submitting preapplications can be found on ER's Grants and Contracts Web Site at: http://www.er.doe.gov/production/grants/preapp.html.

It is anticipated that approximately \$1,500,000 will be available for grant awards in this area during FY 1998, contingent upon availability of appropriated funds. Multiple year funding of grant awards is expected, and is also contingent upon availability of funds. Previous awards have ranged from \$50,000 per year up to \$500,000 per year with terms from one to three years; most awards average about \$200,000 per year for two or three years. Similar award sizes are anticipated for new grants.

Applications will be subjected to formal merit review (peer review) and will be evaluated against the evaluation criteria codified at 10 CFR 605.10(d). To provide a consistent format for the submission, review and solicitation of grant applications submitted under this notice, the preparation and submission of grant applications must follow the guidelines given in the Application Guide for the Office of Energy Research Financial Assistance Program 10 CFR Part 605. Access to ER's Financial Assistance Application Guide is possible via the World Wide Web at: http://www.er.doe.gov/production/grants/grants.html.

FROM: Federal Register March 3, 1997, Vol. 62, No. 41, pages 9419-9420.

#### DIRECTOR CORIELL CELL REPOSITORIES CORIELL INSTITUTE FOR MEDICAL RESEARCH

The Coriell Institute is a basic biomedical research institute founded in 1953 to conduct fundamental investigations in the normal and abnormal functions of cells and has developed with support from the NIH and other outstanding funding agencies a repository of cells and tissues from patients with genetic diseases. This collection represents the world's largest collection of human cells for use in research.

The Coriell Institute is seeking as candidates for Director of the Cell Repositories outstanding M.D. or Ph.D. scientists with at least ten years of research experience in genetics and cell biology, including a background in molecular biology and cell culture, excellent communication skills, and demonstrated supervisory experience. Responsibilities will include supervising cellular and molecular biology, and cytogenetics laboratories headed by doctoral level scientists, developing and documenting an ISO 9000 program for the cell culture laboratories, and overseeing the development of a new computer system for the management of the cell repositories' database.

An appointment is expected to be made on or before July 1, 1997. Applications must be received before May 1, 1997 to be considered. An excellent package of benefits is provided. Salary is negotiable. *Coriell is an Affirmative Action/ Equal Opportunity Employer.* Send applications and three letters of reference to: Director of Human Resources, 401 Haddon Avenue, Camden, NJ 08103.





Research Associate Institute for Medicine and Engineering

The new Institute for Medicine and Engineering at the University of Pennsylvania invites applications for a Molecular Biology Research Associate. Applicants must have a Ph.D. in biology, molecular biology, biochemistry, or related discipline and will act as the primary specialist for a research project investigating the role of gap junctions in vascular cells. Duties require expertise in RNA/ DNA isolation, Northern/Southern blotting and hybridization, plasmid preps, subcloning/construct design, genomic/cDNA library construction and probing, primer design for PCR, and familiarity with sequence analysis software. The Research Associate will determine the experimental design of the primary research project, and will be expected to participate in and coordinate molecular biology aspects of several other projects. Previous project management experience is required, as well as an ability to coordinate multiple on-going projects in a busy, rapidly changing environment.

Potential for advancement is available. Excellent facilities in a new building to be completed this fall.

Please submit CV, addresses and phone numbers of 3 references to:

Denise C. Polacek, Ph.D. Senior Research Investigator Institute for Medicine and Engineering University of Pennsylvania 117 Hayden Holl 3200 Smith Walk Philadelphia, PA 19104-6392

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Regulation of Gene Expression

Molecular Mechanisms of

Intracellular Sorting and Trafficking

Genome Analysis

Cell Cycle Regulation: Molecular and Biochemical Perspectives

> Molecular Basis for Cell Specialization

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Transgenic and Conditional Gene Knock-outs

The Database as Biological Infrastructure in the 21st Century

Gene Therapy of Inherited and Metabolic Diseases

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Advances in Protein Chemistry Technologies

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Atomic Force Microscopy

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Molecular Basis of Alzheimer's Molecular Basis of Atherosclerosis

Abstract Deadline: APRIL 4, 1997

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## R&D SENIOR SCIENTIST-MOLECULAR GENETICIST

The selected individual will play an integral role in Promega's Genetic Analysis and will conduct research and product development relating to nucleic acid amplification, purification and detection methods. This candidate will also partake in independent experimentation developing scientific collaborations and facilitating the technology transfer process. A Ph.D. in Molecular Biology or related discipline, 5 years' laboratory experience and exceptional technical problem solving skills are required. A record of achievement in the area of molecular genetics and molecular diagnostics employing clinical samples; facility with nucleic acid analysis software; project leadership and/or people management abilities; and 2 years' experience in an non-academic setting are required. JOB CODE: 12104JS

## **K&D SENIOR SCIENTIST-BIOLUMINESCENCE**

This scientist will lead the labwork for product development based on reporter technology primarily for quantitative analysis of gene expression. A Ph.D. with post-doctoral experience in cell biology, molecular biology or biochemistry; proficiency in molecular biology techniques (gene cloning, mutagenesis, PCR, hybridization probing, etc.), in cell culture and the creation of stable transgenic cell lines and in assay design and validation; strong presentation skills (verbal, written, graphical) and word processing as well as quantitative analysis are required. Preference will be given to candidates with prior industrial experience; working knowledge of intracellular signal transduction and reporter gene analysis; project leadership and customer service. JOB CODE: 12104KW

## R&D SENIOR SCIENTIST-NUCLEIC ACID CHEMISTRY

The chosen individual will conceptualize and develop new products for the isolation of nucleic acids. Experience with experimental design and analysis of data necessary for developing and troubleshooting new protocols and experience presenting results to peers and professional societies are essential. An M.S. degree in Life Science along with 4+ years' experience in a clinical research or diagnostics lab is requisite. Extensive experience with routine molecular biology methods including nucleic acid isolation (RNA and DNA), library construction, nucleic acid amplification techniques, hybridization and probe labeling systems; experience in the isolation of genomic DNA and RNA from clinical isolates including saliva, sputum, stool and urine; experience in use of molecular techniques for cancer diagnosis and infectious disease testing are required. Preference will be given to candidates with experience in designing automated reagent handling systems. JOB CODE: 11100CS

## Senior Production Scientist-Nucleic Acid Chemistry

This individual will manufacture, quality test components and kits and support new product transfer for the Nucleic Acid Purification and sequencing product areas. A B.S./M.S. in Life Science along with 3+ years' industrial experience is required. Experience using solid and solution phase extraction methods for DNA&RNA; knowledge in the use of systems for automated sequencing or extraction/purification of nucleic acids; and experience performing radioisotope-based assays and in process scale up are required. JOB CODE: 12100CY

## **K&D IMMUNOHISTOCHEMIST**

This person will be responsible for the design and execution of experiments leading toward the development of new products for detection of apoptosis and cell proliferation using state-of-the-art immunohistochemical techniques (i.e. dual staining/two color analysis). Qualified candidates will have a Ph.D. or M.S. in Histology, Neurobiology, Pathology, Cell Biology, Immunology or related field with 3 years' postgraduate laboratory experience, preferably in a business setting. Extensive experience in various immunohistochemical techniques including two color dual labeling, sample preparation, sectioning and cell culture techniques; the ability to work on multiple projects at any given time while leading projects and mentoring scientists; excellent verbal, written, communication and presentation skills including the use of computers. JOB CODE: 12104ES

For confidential consideration, please mail or e-mail your CV with salary requirements, indicating the JOB CODE of interest, to: Promega Corporation, P.O. Box 7879, Madison, WI 53707-7879. E-mail: hr@promega.com. To find out about other opportunities at Promega please call our Career Opportunities Line at (800) 356-9526 option 9 or visit our website at www.promega.com. EOE



## VETERINARIAN

The Jackson Laboratory is seeking a Veterinarian to participate in our Laboratory Animal Health programs and head an established interdisciplinary research and development project currently focused on laboratory animal husbandry and health and control of murine allergens, utilizing ventilated caging systems. Project aims include determination of the effect of air flow rate on animal behavior, reproduction, and spread of infections in mice as well as as sessing allergen exposure in the workplace and evaluation of allergen control strategies. Applicants should have two years experience in research or laboratory animal medicine and hold a DVM or equivalent degree from an AVMA accredited school. Please forward a CV to:



## VETERINARIAN

Princeton University is searching for a Veterinarian to assume full responsibility for policy and oversight functions for animals involved in research activities at the University.

Responsibilities include providing veterinary medical care for university research and teaching animals and consulting with investigators about their research with laboratory animals. The individual selected will be responsible for oversight of surgical facilities, maintaining health surveillance and environmental monitoring programs for a broad spectrum of animals in both conventional and barrier facilities, participating in protocol review, insuring compliance with federal and state animal care regulations, oversight of supervisory personnel, and planning and running a training program for caretakers and research staff.

Candidates must possess a DVM or VMD. Animal research experience, board certification by the American College of Laboratory Animal Medicine and five years experience managing animal facilities are desirable. Knowledge of NIH guidelines for animal care and of associated standards for accreditation by the American Association for the Accreditation of Laboratory Animal Care is preferred.

Salary is commensurate with qualifications and experience. Review of applications will begin immediately and continue until candidate is chosen. Individuals should submit a letter of application, CV and three letters of recommendation to: Office of Human Resources, Princeton University, Clio Hall, Princeton, NJ 08544. Attn: Req. # 3088-PP-SC.

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The Genentech Postdoctoral Program consists of more than 50 researchers and is a vibrant and intensive environment for advanced training. Postdoctoral Researchers conduct basic research in the areas of our scientific interest, publish in scientific journals, and attend and present work at scientific meetings. All candidates should have a PhD and/or MD degree with a strong background in the appropriate field.

#### Molecular Biology

Identify novel growth factors and their receptors and study their functions and effects on cellular signal transduction. See J. Biol. Chem. 271:9785-9789 (1996); Cell 82:355-358 (1995). Manager: Dr. Paul Godowski. Job Code PDPG

Manager: Dr. Paul Godowski. Job Code PDPG

#### Neuroscience

A position is available to study the molecular and cellular biology of central nervous system neurons using primary explant cultures and molecular biology. See Nature 382:80 (1996); Nature 382:76 (1996); Cell 80:95; Nature 373:339 (1995); Neuron 15:35 (1995).

Manager: Dr. Arnon Rosenthal. Job Code PDKR

#### Immunology

Study the inflammatory cascades associated with asthma and ARDS. In particular, the candidate will evaluate the role of various chemokines in the pathophysiology of those diseases. Protein engineering, as well as disease modeling, will be a focus of the work. See J. Biol. Chem 268:18549-18553 (1993); J. Clin Invest. 96:107-116 (1995). Manager: Dr. Caroline Herbert. Job Code PDGH

#### Molecular Biology

A position is available to work on aspects of protein translocation and secretion in yeast. Experience required in yeast genetics or molecular biology and experience in membrane biogenesis and/or protein secretion is highly desirable. Manager: Dr. Kevin Baker. Job Code PDKB

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your resume indicating Job Code to jobs@gene.com (ASCII files only with a maximum line width of 76 characters). Genentech is an Equal Opportunity Employer. We value the contributions of our diverse workforce.

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SYMPOSIUM

#### **ANNOUNCEMENT**

#### **GENOTYPING RESOURCE AVAILABLE**

The National Institutes of Health announces to all interested investigators the availability of resources and facilities for high throughput genotyping at the Center for Inherited Disease Research (CIDR). CIDR is a joint effort by eight participating institutes at NIH: the National Human Genome Research Institute (NHGRI), the National Cancer Institute (NCI), the National Institute of Child Health and Human Development (NICHD), the National Institute on Deafness and Other Communication Disorders (NIDCD), the National Institute on Drug Abuse (NIDA), the National Institute of Environmental Health Sciences (NIEHS), the National Institute of Mental Health (NIMH), and the National Institute of Neurological Disorders and Stroke (NINDS). The NHGRI serves as the lead agency and manager of the CIDR facility which will be housed at the Bayview Campus of Johns Hopkins University.

CIDR has been established as a resource to provide, on a fee for service basis, high throughput genotyping services to research efforts that are attempting to identify genetic loci and allelic variants involved in multifactorial disease. Using samples provided by the principal investigators, a variety of different mapping approaches will be supported, including human disease affected pedigree member methods, transmission disequilibrium testing, and linkage analysis in pedigrees. Consultation on study design and statistical analysis are available as additional services to investigators. The data and analyses will remain the property of the principal investigator and, once the studies in CIDR are complete, will be returned to the principal investigators for further research.

Access to CIDR is open to all investigators on a competitive basis. This includes both extramural and NIH intramural investigators. A more complete description of CIDR is available at the NHGRI homepage on the World Wide Web at http://www.nhgri.nih.gov/DIR/CIDR. If you are interested in using the services and facilities of CIDR or if you would like additional information, contact Dr. Jerry Roberts, Scientific Review Administrator and Chief of Staff, CIDR Board of Governors, in the NHGRI Office of Scientific Review.

Jerry Roberts, Ph.D., National Institutes of Health, National Human Genome Research Institute, 38 Library Drive MSC 6050, Building 38A, Room 609, Bethesda, MD 20892-6050; (301) 402-0838; FAX (301) 480-2770; robertsj@odder.nhgri.nih.gov DRUG DISCOVERY IN NEUROSCIENCE AND PAIN A Symposium Celebrating the Grand Opening of the Research Facilities of Astra Research Centre Montreal May 15-16, 1997 Confirmed participants include:

P. Aebischer, A. J. Aguayo, M. R. Brown, M. G. Caron, A. Dray, R. P. Elde, A. Fersht, R. Guillemin, S. Hannessian, T. Hökfelt, T. M. Jessell, E. R. Kandet, H. F. Lodish, J. M. Lundberg, M. A. Moskowitz, S. Nakanishi, A. Pawson, F. Porreca, D. J. Reis, E. Roberts, A. B. Smith III, and P. Walker.

There are a few spaces remaining to attend this Symposium. Those interested in attending should notify, preferably in writing, before April 15, 1997.

> Symposium Astra Research Centre Montreal 7171 Frederick-Banting Saint-Laurent, Quebec H4S 1Z9 Canada Fax: 514.832.3230

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We are seeking a Scientist to join our Endocrinology/Metabolism group. The successful candidate will develop an independent research program investigating the molecular mechanisms that control food intake, fuel homeostasis and adipocyte differentiation and development. The research program is expected to lead to the development of drugs that will be useful for the treatment of obesity and type II diabetes. Requirements include a PhD and postdoctoral experience in Endocrinology or Metabolism or relevant areas of Biology. In addition, we require significant understanding and experience in molecular and cellular biology.

For consideration, send your resume to Genentech, Inc., Human Resources, Job Code SM192, 460 Pt. San Bruno Blvd., South San Francisco, CA 94080. Please avoid bold, underline or italic type faces. You may also e-mail your resume indicating Job Code to jobs@gene.com (ASCII files only with a maximum line width of 76 characters)

#### U.S. Department of Agriculture Agricultural Research Service Microbiologists/Veterinary Medical Officers Plum Island Animal Disease Center

The U.S. Department of Agriculture, Agricultural Research Service (ARS), Plum Island Animal Disease Center is seeking applicants for two permanent research staff positions. The Center is situated off the northeast tip of Long Island, NY. USDA ferry services to Orient Point, NY and Old Saybrook, CT offer a choice of living on Long Island or in Connecticut.

Microbiologist/Veterinary Medical Officer (GS 13/14). The incumbent will be a member of the African swine fever research group and will be responsible for developing a research program on aspects of viral pathogenesis, virulence and persistence. Knowledge and research experience in the areas of infectious disease, virology and viral pathogenesis is required. A Ph.D. degree and knowledge of and research experience in veterinary pathology is highly desirable. For information concerning this position, contact D. L. Rock, Tel. 516-323-2500, Ext. 330. Applications for this position must be postmarked by May 16, 1997, and should be marked X7N-0087.

**Microbiologist/Veterinary Medical Officer** (GS 13/14). The assignment is to develop a basic and applied research program on the pathogenesis, diagnosis, and molecular epidemiology of vesicular stomatitis virus (VSV). The successful candidate will have knowledge of virology, pathogenesis, and epidemiology of VSV and research experience in the clinical aspects and diagnosis of VSV, particularly RT-PCR based methods. Experience working in biosafety level 3+ or higher is desired as well as experience in leading or collaborating with multidisciplinary scientific teams, especially at the international level. Both a D.V.M. and Ph.D. degree is desirable. For information concerning this position, contact C. A. Whetstone, Tel. 516-323-2500, Ext. 441. Applications for this position must be postmarked by April 28, 1997, and should be marked X7N-0088.

Both positions are permanent appointments and U.S. citizenship is required. Salary is commensurate with experience (\$55-85K). For application procedures/forms, please contact: **Maria Martocchia, Tel. 516-323-2500, Ext. 346, FAX 516-323-2507.** ARS is an Equal Opportunity Employer.

#### COURSES & TRAINING

Workshop on Molecular Evolution

Marine Biological Laboratory, Woods Hole Canadian Institute of Advanced Research

August 3-August 15, 1997

plus extended special topics August 16-August 22.

A series of lectures and mini-symposia exploring multiple approaches to molecular evolution, with a computer laboratory for phylogenetic and sequence analysis. Current topics in molecular evolution including the theoretical basis for comparative sequence analysis and phylogenetic tree construction, evolution of development, comparative analysis of genomes, origins of organelles, evolution and diversity of microorganisms, and molecular approaches to population biology will be addressed. Latest course information may be found on the Web at www.mbl.edu/html/GUIDE/education.TOC.html. Enrollment limited to 60 students.

**Co-Directors:** Mitchell L. Sogin, Marine Biological Laboratory, and Daniel Davison, University of Houston. **Faculty:** Joseph Felsenstein, University of Washington; Michael Gray, Dalhousie University; Robert Haselkorn, University of Chicago; David Hillis, University of Texas at Austin; Dick Hudson, University of California at Irvine; David Maddison, University of Arizona; Geoff McFadden, University of Melbourne; Michael Miyamoto, University of Florida; Gary Olsen, University of Illinois; Norman Pace, University of California at Berkeley; Bill Pearson, University of Virginia at Charlottesville; David Roos, University of Pennsylvania; Pamela Soltis, Washington State University; David Swofford, Smithsonian Institution, Washington, D.C.; Steven Thompson, Washington State University; John Wakeley, Rutgers University; Bruce Walsh, University of Arizona; Sam Ward, University of Arizona; Carl Woese, University of Illinois; and others to be announced.

Course Fee: \$850 (includes room and board, but not Special Topics Session)

Special Topics Session: \$400 (includes room and board)

Application Deadline: May 13, 1997

For information and application forms contact: Carol Hamel, Admissions Coordinator, Marine Biological Laboratory, 7 MBL Street, Woods Hole, MA 02543-1015, Tel: (508) 289-7401; email: admissions@mbl.edu.

## SAMUEL LUNENFELD RESEARCH INSTITUTE ▲ Protein Function

A faculty-level position is available for a scientist working on structural, biochemical or genetic approaches towards understanding protein-protein interactions and their biological functions. Areas of primary interest include the cell cycle, signal transduction, DNA replication, apoptosis and the cytoskeleton. We are especially interested in individuals pursuing the development of new methodologies for the analysis of protein function.

This is an independent position in a well-established, inter-active department with interests in signal transduction, the cell cycle, molecular oncology and mammalian development. Appropriate start-up funds will be provided. Cross-appointment to an appropriate Department of the University of Toronto will be available.

Please send applications, including a Curriculum Vitae, a brief statement of future research interests, and three letters of reference, by June 15, 1997, to: **Dr. Tony Pawson, Chair**,



Research Institute, Mount Sinai Hospital, 600 University Ave., Room 982, Toronto, Ontario, Canada M5G 1X5.

Search Committee, Samuel Lunenfeld

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#### SCIENTIST/SR. SCIENTIST

We are looking for an experienced Molecular Biologist to participate in projects in a variety of research areas. To qualify, you should have a PhD in Molecular Biology, Biochemistry or related field and 6+ years' experience. Skill in gene isolation techniques (cDNA library construction and PCR) is essential, as is experience in expression vector design and construction, cell culture and mammalian cell expression. The ability to thrive in a teamoriented environment and excellent interpersonal and communication skills are required; supervisory experience would be an asset.

As a U.S. subsidiary of an international Fortune 500 company, we offer competitive salaries and a full complement of benefits. To apply, send your c.v./resume to: HUMAN RESOURCES, BERLEX, 15049 SAN PABLO AVE., RICHMOND, CA 94804-0099. Principals only, please. EOE.



## The Science of Agricultural Genetics

#### RESEARCH ASSOCIATE Analytical Biochemistry - Protein Analysis (lob #AB-711)

This person will join a laboratory that is responsible for analysis of proteins in transgenic crop plants. The specific focus of this position will be the molecular analysis of plants in the crop protection program. The successful candidate will be expected to manage routine analysis projects as well as to participate on teams developing insect and disease resistant plants. A high degree of interaction with entomologists, pathologists and molecular and cell biologists will be required. EDUCATION/EXPERIENCE: Minimum qualifications are a B.S. degree in biochemistry, biology or closely related field plus 2 years of relevant experience. Experience in protein analysis/biochemistry is essential (immunoassay experience is very desirable). Experience with transgenic plant analysis, particularly of insect and/or disease resistant plants is preferred. Excellent communication skills are essential as is knowledge of computers and statistics.

Pioneer Hi-Bred International, Inc. offers competitive salaries and excellent, comprehensive benefits. Des Moines is a prospering heartland city that ranks well above the national averages in affordability and education. Our location provides a mix of beautiful open spaces and city life advantages. For confidential consideration send 3 copies of your cover letter and current resume, indicating job number, by April 11, 1997 to: Pioneer Hi-Bred International, Inc., Attri: PERSONNEL (Job #AB-711), P.O. Box 1004, Johnston, IA 50131-1004.

Pioneer Hi-Bred International. Inc., is the world leader in agricultural genetics. Founded in 1926, we are a publicly held company that invests more than \$115 million in research and product development. Pioneer brand products are grown in almost every crop producing continent in the world. At our headquarters in Des Moines, Iowa, we're adding to our Research team.

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At Abbott Laboratories, our professionals are researching, developing and marketing the health care products that will make a significant impact on generations to come. The Pharmaceutical Products Division of Abbott Laboratories is expanding its expertise in GI physiology/ pharmacology to exploit a novel class of

prokinetic agents, as well as to explore novel nociceptions and inflamation targets.



### SENIOR GI PHARMACOLOGIST

We are seeking a uniquely qualified Senior Gastrointestinal Scientist to lead this effort. The selected candidate will head a group/lab in the development of animal, in vitro and in situ models of GI function/ diseases as well as the evaluation of novel agents and their site/ mechanism of action in such. A broad background/experience in GI physiology and/or pharmacology with specific expertise in motility, upper and lower gastrointestinal transit, and visceral pain models, is required. Qualified individuals will have a Ph.D., or equivalent, and 6-10 years of post-doctoral experience. An aggressive, independent, creative thinker with skills and drive to champion and perform the comprehensive characterization of an existing class of novel prokinetic agents, as well as to explore novel targets and licensing opportunities for future GI therapeutics, is sought. **(Job #97-LAM-0548)** 

### GI PHYSIOLOGIST/PHARMACOLOGIST POST-DOC

The selected candidate will develop in vivo and in situ models of GI function/disease (motility and nociception) to characterize a novel class of prokinetic agents as well as to explore novel targets. Qualified individuals will have a Ph.D., an understanding of integrated GI physiology and/or nociception, and good written and verbal communication skills. (Job #97-LAM-0459)

### ASSISTANT GI PHYSIOLOGIST/ PHARMACOLOGIST

The selected candidate will assist the above individuals in the establishment of state-of-the-art models, as well as the evaluation of novel agents and mechanisms in such. Qualified individuals will have a M.S. or B.S., plus a minimum of 3 years experience in a GI lab. Good interpersonal, organizational and self-starting skills, as well as the ability to work independently, are essential. (Job #97-LAM-0373)

With 52,000 employees worldwide, and more than \$11 billion in annual sales, we've established ourselves as a respected global business and innovative leader in the changing health care industry. For confidential consideration, please send a CV, a brief description of your research background, salary history and a list of three references to: Abbott Laboratories, Job #(please select), D583, AP9A(LL), 100 Abbott Park Road., Abbott Park, IL

60064. Abbott is an Affirmative Action Employer/ Smoke-Free Environment.



#### POSITIONS OPEN

#### MARINE CHEMICAL ECOLOGIST UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

This tenure-track ASSISTANT PROFESSOR position in the Curriculum in Marine Sciences will be stationed at University of North Carolina's Institute of Marine Sciences in Morehead City, North Carolina. Applicants should have Ph.D. in chemistry, or equivalent chemical training with a Ph.D. in a related field. Additional experience should be in ecology with a focus on the role of marine secondary metabolites or natural products in affecting basic ecological and evolutionary processes at the level of the population or community. Applicants will be expected to establish a strong, independent, externally-funded research program that takes advantage of the Ínstitute's coastal field location. Existing faculty strengths that offer opportunities for productive interaction include the ecology of plants, animals, and microbes as well as hydrodynamics and sedimentology of coastal habitats. Demonstrated interest in the biotechnological development of marine natural products is desirable. Teaching obligations will be in the area of Biological Oceanography at the Chapel Hill Campus. Send curriculum vitae, statement of research and teaching interests, and four letters of recommendation to: Marine Chemical Ecology Search Committee, University of North Carolina at Chapel Hill, Institute of Marine Sciences, 3431 Arendell Street, Morehead City, NC 28557; FAX: 919-726-**2426**. For full consideration, applications should be received by April 21, 1997, but will be accepted until the position is filled.

The University of North Carolina at Chapel Hill is an Equal Opportunity Employer. Minerity and female candidates are encouraged to apply and identify themselves.

#### ENVIRONMENTAL SCIENCE TRINITY COLLEGE WASHINGTON, D.C.

Trinity College, a Catholic, liberal arts college for women, invites applications for a one-year visiting AS-SISTANT PROFESSOR position in environmental science, beginning August 1997. The successful candidate will hold a Ph.D., specializing as a field biologist or ecologist. A strong commitment to excellence in undergraduate teaching is required. Candidate must be able to teach introductory and advanced environmental science courses, ecology, and conservation biology. Geology and/or policy background desirable. Opportunities available to involve students in research and internships in the Capitol area. Teaching may include weekends and/or evenings. Review of applications will begin April 11, 1997 and continue until the position is filled. Applicants should provide a cover letter, curriculum vitae, samples of course syllabi, and a statement of teaching philosophy, and arrange to have three letters of recommendation sent to: Ms. Carole King, Director of Human Resources, Trinity College, 125 Michigan Avenue, N.E., Wash-ington, DC 20017. FAX: 202-884-9123. Trinity College is an Equal Opportunity Employer and actively seeks to increase the diversity of its faculty.

**RESEARCH ASSISTANT PROFESSOR POSI-**TION (non-tenure-track) for studies on the molecular biology and pathogenic properties of mycoplasmas. Available projects include studies on (i) novel, phase-variable restriction and modification systems. (ii) mechanisms and pathogenic consequences of antigenic variation, and (iii) phage-encoded virulence factors. Strong background in molecular biology/microbial genetics required. Applicants should have substantial experience with mycoplasmas and a minimum of three years postdoctoral experi ence. POSTDOCTORAL FELLOW position also available for applicants lacking sufficient experience for the Research Assistant Professor position. Send curriculum vitae and names and addresses of three references to: Dr. Kevin Dybvig, Department of Comparative Medicine, University of Alabama at Birmingham, VH418A, 1670 University Boulevard, Birmingham, AL 35294-0019. University of Alabama at Birmingham is an Equal Employment Opportunity Employer.

**POSTDOCTORAL RESEARCH POSITION** available in hematopoietic stem cell biology. Studies will focus on the regulation of CD34 expression in mice using *in vitro* and *in vitro* techniques. Qualified candidate should have prior experience in molecular and cell biology. Please send curriculum vitae, description of research experience, and two letters of reference to: Diane Krause, M.D., Ph.D., Yale University School of Medicine, Box 208035, New Haven, CT 06510–8035.

#### **POSITIONS OPEN**

**PHYSICIST**, Experimental to work in Newport News, Virginia; forty hours per week (8:00 A.M. to 5:00 P.M.) Salary: \$50,000 to \$79,100 per year.

Incumbent will contribute to the implementation of programs of research and the facilities planned. Will provide programmatic support for the design, construction, commissioning of operations of the Hall C experimental instrumentation and associated systems. Provide scientific support for the Hall C spectrometer commissioning optimization and data analysis. Participate in conceptual planning, proposal development, design and implementation of experiments. Devote a portion of effort towards high-quality research activities of interest for future work.Requires a Ph.D. in physics plus at least three years of experience with experimental equipment (i.e., large magnetic spectrometers, high-energy electron beam lines, polarized beams and targets, and large acceptance nonmagnetic detectors). Expertise in electron beam experiments, knowledge of optic codes like TRANSPORT, standard Monte Carlo techniques and simulation codes like GEANT. Demonstrated knowledge in large magnetic spectrometers, beamline equipment and beam diagnostics in an electron beam environment. Detailed knowledge of Radiative Correction Procedures. International reputation in the field as evidenced by publications. To apply, mail two résumés with a copy of this ad attached to: VEC VA6031870, 5145 East Virginia Beach Boulevard, Norfolk, VA 23502

Equal Opportunity Employer Minorities/Females/Hispanics/Veterans.

Brown University is seeking an ASSISTANT PRO-FESSOR (Research) to join the Department of Psychiatry and Human Behavior to serve as Project Director at the Center for Alcohol and Addiction Studies. The successful candidate must qualify for a full-time faculty position at the rank of Assistant Professor (Research) Department of Psychiatry and Human Behavior for a three-year renewable term. The successful candidate will direct a program of research in the area of substance abuse treatment for adolescents and young adults. Min-imum requirements include: a Ph.D. in psychology, with expertise in methodology and advanced approaches to statistical analysis (such as structural equation modeling and time series analysis). Experience in grantmanship and in the design and implementation of applied research; academically qualified to conduct clinical treatment outcome research on the efficacy of interventions for various addictive behaviors in various populations. At least three years of experience in providing supervision and administrative oversight to a large and professionally diverse research staff. Record of scholarly publications. Deadline for applications is May 30, 1997 All applications received by this date will receive full consideration. Send letter, curriculum vitae, and three letters of reference to: Martin B. Keller, M.D., Chairman, Department of Psychiatry & Human Behavior, Brown University, Psychiatrist-In-Chief, Butler Hospital, 345 Blackstone Boulevard, Providence, RI 02906. Brown University is an Equal Employment Opportunity/Affirmative Action Employer and encourages applications from qualified women and protected and minority groups.

#### UNIVERSITY OF ROCHESTER

Opportunity for a cell biologist to join a multidisciplinary glycobiology group as a **RESEARCH ASSIST-ANT PROFESSOR** (non-tenure-track). Initial appointment can be made for up to three years. We study the regulation and function of O-glycosylation. The successful candidate will have demonstrated expertise in characterizing the Golgi complex (e.g., transport, reconstitution, sorting). To apply send curriculum vitae with the names of three references, together with a brief statement of your research interests to:

Lawrence A. Tabak, D.D.S., Ph.D. Professor and Chair, Department of Dental Research School of Medicine and Dentistry University of Rochester 601 Elmwood Avenue, Box 611 Rochester, NY 14642-8611 Email: Itab@medinfo.rochester.edu

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

#### POSITIONS OPEN

The USDA, Agricultural Research Service (ARS), Beltsville Agricultural Research Center, Plant Sciences Institute, Insect Chemical Ecology Laboratory, Beltsville, Maryland is seeking a RESEARCH CHEMIST, GS-1320-11/12. Salary is commensurate with experience (GS-11: \$38,330-\$49,831 per annum; GS-12: \$45,939-\$59,725 per annum). Candidates must be U.S. citizens. The position involves planning and conducting independent and cooperative research in the area of arthropod chemical ecology with special emphasis on pheromones, kairomones, synthetic attractants and repellents. In addition to the basic educational requirements, applicants must demonstrate 1) knowledge of the principles, theories, practices, methods, and procedures of organic chemistry; 2) ability to calibrate, maintain, and operate analytical instruments in order to perform measurements and analyses; 3) ability to design, plan, and conduct research and analyze and publish results; and 4) knowledge of synthetic organic chemistry. For information on the research program contact: Dr. Jerry Klun, Telephone: 301-504-6085. For information on application procedures/forms and a copy of the vacancy announcement, contact Veronica Olaaje, Telephone: 301-344-1014. Applications submitted in response to this advertisement must include announcement number ARS-07B-087/B-7-14, must be postmarked by April 14, 1997, and mailed to: USDA, ARS, HRD, Beltsville/Headquarters Operations Branch, 6305 Ivy Lane, Room 361, Greenbelt, MD 20770. USDA/ARS is an Equal Opportunity Employer

#### FACULTY POSITIONS IN AUDITORY/ VESTIBULAR NEUROSCIENCE

The Oregon Hearing Research Center at Oregon Health Sciences University is seeking faculty members in auditory/vestibular neuroscience with research emphases on molecular and cellular approaches to ear development/regeneration, disease or age processes, homeostatic mechanisms, or functional morphology. Appointments at ASSISTANT, ASSOCIATE, or PROFESSOR LEVELS are available. Requirements: Ph.D. or equivalent; three years postdoctoral experience; record of peerreviewed publications; and funded or fundable research program. Salary and rank will be commensurate with qualifications and experience. Submit statement of research interest, curriculum vitae, and three references to: Alfred L. Nuttall, Ph.D., Oregon Hearing Research Center, NRC04, 3181 S.W. Sam Jackson Park Road, Portland, OR 97201–3098 by May 30, 1997; although search will continue until positions are filled. Oregon Health Sciences University is an Equal Opperunity, Affirmative Action Employer.

Applications are invited for a tenure-track position at the ASSISTANT PROFESSOR level starting August 15, 1997. Candidates must have a Ph.D. in biology, postdoctoral research experience, and demonstrate expertise and commitment to undergraduate teaching. Responsibilities include upper level ecology, field zoology, introductory zoology and biology for non-majors. Direction of undergraduate research is expected. Preference will be given to applicants who will conduct research involving the Black Hills ecosystem. Send letter of application, résumé, a statement of teaching and research interests, unofficial transcripts, and three letters of reference by April 18, 1997 to: Dr. Audrey Gabel, Chair, USB 9005, Black Hills State University, Spearfish, SD 57799– 9005. An Equal Oppertunity/Affiniative Action Employer.

#### RESEARCH ASSISTANTS

The Ecosystems Center of the Marine Biological laboratory is seeking two RESEARCH ASSISTANTS. Job activities include monitoring physical and biological parameters of streams in Alaska during the summer, and laboratory analyses and writing in Massachusetts during the winter. M.S. in Aquatic Biology, Ecology, Fisheries Ecology or Chemistry or B.A./B.S. with at least three years of experience required. Scientific writing skills are a must. Applicants should be capable of rigorous physical activity and prepared to live in an isolated setting with harsh envionmental conditions. Full job descriptions can be found on the Marine Biological Laboratory website: http://www.mbl.edu (Click on Public Information to view Human Resources position postings.) Please send letter of interest, curriculum vitae, and names of three references to: Human Resources, Marine Biological Laboratory, 7 Marine Biological Laboratory Street, Woods Hole, MA 02543. Email: resume@mbl.edu. (We can accept attachments in MIME or binhex for Microsoft Word 6.0 or lower version.)

Equal Opportunity/Affirmative Action/Non-smoking workplace.

#### POSTDOCTORAL POSITIONS AT THE NATIONAL CANCER INSTITUTE

The Laboratory of Leukocyte Biology under the direction of Francis Ruscetti, Ph.D., in the Division of Basic Sciences of the National Cancer Institute, Frederick Cancer Research and Development Center has several postdoctoral training positions available. The laboratory and its independent investigators cover a diverse range of interests including: hematopoiesis, viral pathogenesis, signal transduction, cell cycle control, and transcriptional regulation to name a few. Positions are available under the direction of the following investigators:

Francis Ruscetti, Ph.D. (ruscettif@ ncifcrf.gov): Research will focus on interactions between positive and negative regulators in the control of hematopoietic stem cell function, molecular determinates of the regulation of c-kit expression by transforming growth factor- $\beta$ , and mechanisms of chemoprotection of hematopoietic cells by cytokines including gene transfer. Candidates should have a strong background in molecular and cell biology.

David Derse, Ph.D. (derse@ncifcrf.gov): Research is focused on the molecular genetics of human retroviruses, specifically aimed at the regulation of viral RNA synthesis, splicing and transport and on cell-virus interactions. Candidates will have an interest in virology and RNA metabolism.

Ira O. Daar, Ph.D. (daar@ncifcrf.gov): Studies are aimed at understanding the cellular interactions and signal transduction events elicited by a member of the Eph family of tyrosine kinases and candidate ligands. Emphasis is on signal function during *Xenopus laevis* embryonic development. Candidate should have strong background in molecular, cellular, or developmental biology.

Diana Linnekin, Ph.D. (linnekin@ ncifcrf.gov): Studies of signal transduction mechanisms of hematopoietic growth factors. The major focus is directed towards delineating the biochemical and molecular mechanism of stem cell factor, the ligand for the receptor tyrosine kinase c-kit. Applicants should have a strong background in molecular, cellular, or developmental biology.

**Doug Ferris, Ph.D. (ferris@ncifcrf. gov):** General focus is on cell cycle regulation with particular emphasis on mammalian polo-related kinases, their regulation, functions, and physiological partners and substrates. Applicants should have knowledge of cell and molecular biology.

William J. Murphy, Ph.D. (murphy@ ncifcrf.gov): Bone marrow transplantation. Using both in vivo and in vitro model systems, our laboratory is examining the immunobiology underlying marrow graft failure, graft-versushost disease (GVHD), immune deficiency following the transplant, and when used for the treatment of cancer, relapse of the tumor.

For more detailed descriptions of the laboratory, its investigators and research visit our Website at: http://www.nci.nih.gov/intra/lb/ llbpage.htm. Candidates must be U.S. citizens or permanent residents and have less than five years postdoctoral experience. Correspondence, names of references and CV should be sent to the respective investigator(s), Laboratory of Leukocyte Biology, Bldg. 567, NCI-FCRDC, Frederick, Maryland 21702-1201 or via email.



Due to our growing client base, we have several challenging opportunities in our Life Sciences Division. We are a world class research and development center. The Life Sciences Division provides comprehensive preclinical drug development and testing capabilities.

**Toxicologist (Job # 232) requires Ph.D. or M.S. in Toxicology** or related field with two to five years of experience in conducting preclinical toxicology studies. Excellent verbal and written communication skills are a must. Knowledge of GLP regulations, board certification (DABT), and experience in a contract laboratory are desirable. Duties include serving as study director on acute, subchronic, and chronic toxicology studies for governmental and industrial clients involving therapeutics such as anti-cancer, anti-HIV, and anti-malarial agents. Studies include carcinogenic and reproductive studies, multiple species, and multiple routes of administration. Additionally, the position offers the opportunity to work in a multidisciplinary environment and have significant client contact.

**Manager, Cell Biology and Immunology (Job # 180)** requires a Ph.D. in Cancer Biology or related field. Must have extensive expertise with *in vitro* techniques (e.g., tissue culture, molecular biology, immunology, flow cytometry, and image analysis). Duties include marketing, fiscal oversight, and proposal writing. Must successfully interact with clients in order to obtain independent funding. Prefer management experience. Should be familiar with GLP.

**Postdoctoral Fellow (Job # 104)** requires a Ph.D. in a Biological Science to join a team of researchers conducting *in vivo* and *in vitro* studies in cancer chemoprevention, chemotherapy, drug evaluation, and experimental model development. Prefer experience in anti-cancer drug evaluation, conducting *in vivo* studies. Must have good written and verbal communications skills. Research involves anti-cancer drug development through NCI-contracted drug development and other private clients.

Lab Animal Veterinarian (Job # 233) requires D.V.M., board certification and a minimum of five years experience in laboratory animal medicine. Excellent verbal and written communication skills are essential. Prefer experience in a contract research organization performing toxicology studies subject to GLP regulations. Duties include: providing clinical care for rodents, dogs, and nonhuman primates; serving as a member of the Institutional Animal Care and Use Committee; assuring compliance with regulatory requirements; project development; preparing proposals, study protocols, standard operating procedures, and reports; training laboratory personnel for AALAS certification; serving as primary point of contact for AAALAC inspections and assuring AAALAC accreditation.

**B.S/M.S. Organic Chemist (Job # 237)** in Organic Chemistry with 2 to 5 years experience in scaleup operations in the kilogram range. Should be knowledgeable of GLP and GMP requirements. Duties include conducting multistep organic synthesis, (both 5-50 g range and kilo range; purification and characterization of compounds; and preparation of various scientific reports. Requires excellent written and verbal skills.

To apply for any of the above positions, send resume and cover letter referencing the appropriate job # to Human Resources, Southern Research Institute, P.O. Box 55305, Birmingham, AL 35255-5305; fax to (205)581-2200; e-mail to prince@sri.org. (Please send~electronic resumes as a Word attachment).

An Affirmative Action/Equal Opportunity Employer www.sri.org

#### **POSITIONS OPEN**

#### PLANT SCIENCE

The National Research Initiative Competitive Grants Program of the U.S. Department of Agriculture seeks a qualified scientist to serve as **ASSISTANT PROGRAM** DIRECTOR for competitive grants administration in the area of general plant biology, or related plant science disciplines such as genetics, biochemistry, photosynthesis, growth and development, pathology, wed biology, en-tomology, nematology, or biocontrol. Candidates must have an advanced degree with major study in at least one of the areas listed above or a closely related field. It is preferable that the candidate have a Ph.D. or equivalent specialized experience. This is a competitive vacancy, open to all United States citizens. Closing date is April 16, 1997. For information on the position, contact: Dr. Ed Kaleikau, Division Director, National Research Initiative Competitive Grants Program, CSREES/ USDA, STOP 2241, 1400 Independence Avenue S.W., Washington, D.C. 20250-2241, Telephone: 202-401-1901; Email: ekaleikau@reeusda.gov. For information on application procedures/forms, contact the Human Resources Division, Telephone: 301-344-3960. USDA is an Equal Opportunity Employed

#### STOCK ASSESSMENT ANALYST NATIONAL MARINE FISHERIES SERVICE (NMFS) NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE SAN FRANCISCO, CALIFORNIA

The Tiburon Laboratory of the Southwest Fisheries Science Center, NMFS, announces a vacancy for a Stock Assessment Analyst (Research Fishery Biologist, GS-11/ 12). The duties of the position are to analyze time series of catch biomass, age/length composition data, and other fishery independent information to determine the status of exploited west coast groundfish species. The position requires a close familiarity with the quantitative population dynamics of fishes, stock assessment computer models, statistical methods, and some knowledge of fisheries management. The candidate will interact extensively with the Pacific Fishery Management Council and its bodies. The position (W/NMF/97034.JN) is open to applicants during the two-week period March 26–April 9, 1997. Vacancy specifics available at: http://www.rdc.noaa. gov/~webvas/

#### RESEARCH ASSOCIATE ENVIRONMENTAL/ORGANIC CHEMISTRY

SUNY Oswego has a 10-month **RESEARCH ASSO-CIATE** position in environmental organic chemistry. Preference will be given to persons with a specialty in Advanced Oxidative Processes, \$30,000 per 10 months and funded by an annual renewable National Institute for Environmental Health Sciences Basic Research grant. Interested candidates should forward a letter of application, curriculum vitae, and three letters of professional reference including addresses and telephone numbers to: Ms. Laurie West, Environmental Research Center, 319 Piez Hall, SUNY at Oswego, Oswego, NY 13126 by April 21, 1997. For additional information call Laurie West at 315-341-3639 or Email: lwest@oswego.edu. The State University of New York is an Affinantive Action Employer and applications from women and minority candidates are encounged.

#### MEDICAL DIRECTOR Ph.D., Pharm.D. or M.D.

Medical Education firm seeks a **MEDICAL DIREC-TOR** due to growth and success in providing high quality medical education programs for its major pharmaceutical clients.

Experience in writing medical publications and other forms of medical communications. Ability to communicate well and participate in goal directed teams. A Ph.D., Pharm.D. or M.D. is required. Experience in cardiovascular disease is a plus. Mail résumé to: Applied Clinical Comm., 1160 Parsippany Boulevard, Parsippany, NJ 07054. FAX: 201-316-5997; Email: jdagnese @appliedclinical.com.

**POSTDOCTORAL POSITION** to study Apoptosis and Bcl-2 (*PNAS*, **91**:6569, 1994; *JBC*, **272**:6087, 1997). Must have experience in biochemistry/molecular biology. Send curriculum vitae and names of three references to: Clark W. Distelhorst, Case Western Reserve University, BRB 329, 10900 Euclid Avenue, Cleveland, OH 44106-4937. Women and minorities encouraged to

#### POSITIONS OPEN

**CROP ECOLOGIST: ASSISTANT RESEARCH-ER** at Oklahoma State University's Wes Watkins Agricultural Research and Extension Center, Lane, Oklahoma. Two-year initial appointment in a non-tenure-track position. Successful candidate will work with a multidisciplinary research team in modeling horticultural cropping systems with a special emphasis on crop and pest (insect, disease, weed) interactions and management. Candidates with training in modeling plant systems and crop-weed interactions are of special interest. Applicants should have a Ph.D. in a plant science or ecology related area. Applications should include letter of interest, résumé and copies of undergraduate and graduate transcripts, and names and addresses of three references. Applications are due by May 15, 1997 to: Dr. Merritt Taylor, Director, WWAREC, OSU, P.O. Box 128, Lane, OK 74555. Telephone: 405-889-7343.

#### STAFF SCIENTIST

The Research Department of Epitope Medical Products, developer of the first oral HIV antibody confirmatory test, invites applications for a **STAFF SOLENTIST** position. The successful candidate will be responsible for conceptual development of clinical immunoassays and molecular diagnostics. Background should include mastery of immunochemical and DNA/RNA diagnostic technologies. We are seeking applicants with Ph.D. and/ or M.D. degrees who have several years of relevant postdoctoral experience. Industrial experience is desirable. Applicants should send a curriculum vitae, a brief statement of research interests, and the names, addresses and telephone numbers of three references to: Human Resources, Epitope, Inc., 8505 S.W. Creekside Place, Beaverton, OR 97008. An Equal Opportunity Employer.

#### CANCER RESEARCH MOLECULAR IMMUNOLOGIST

GenQuest is a new cancer genomics company focusing on the development of novel therapeutics and diagnostics. GenQuest is seeking doctoral level SCIENTISTS (Ph.D., M.D., D.Sc., or equivalent) to work in its facility in New York City. The successful applicant will have a minimum of two to three years of postdoctoral or industrial experience in recombinatorial phage display libraries, antibody engineering, CDR mutagenesis, etc. Competitive salary and benefits, including stock options. Please send curriculum vitae, statement of interests, and names of three references to: GenQuest Inc., 1124 Columbia Street, Suite 464, Seattle, WA 98104. FAX: 206-667-5715. An Equal Opportunity Employer.

#### RESEARCH SCIENTIST DIVISION OF NEPHROLOGY AND HYPERTENSION

Winthrop-University Hospital, a 591-bed teaching hospital affiliated with SUNY at Stony Brook Hospital of Medicine, has an excellent opportunity available for a Molecular SCIENTIST to direct research in a fully funded laboratory. You will supervise two fully supported technicians to conduct ongoing research activities with negotiable freedom to pursue own interests. Ph.D. in molecular biology required.

We offer a competitive salary (commensurate with candidate's qualifications) and flexible benefits program. For consideration, please send your curriculum vitae to: Employment Manager, Department of Human Resources, 259 First Street, Mineola, NY 11501. FAX: 516-663-2179.

NIH-funded **POSTDOCTORAL POSITION** available immediately to study genes associated with prostate cancer progression and/or male hormone action. Applicants should be U.S. citizens or permanent residents and have a Ph.D. in molecular biology, or a related field. Send curriculum vitae and names of three references to: Zhou Wang, Ph.D., Department of Urology, Northwestern University Medical School, Tarry 11-715, 303 East Chicago Avenue, Chicago, IL 60611. FAX: 312-908-7275. Email: wangz@nwu.edu. Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL RESEARCH ASSOCIATE.** Starting date flexible. To carry out research on enzyme kinetics and mechanisms. Please respond to: **R. Pollack**, **Department of Chemistry and Biochemistry, Uni**versity of Maryland Baltimore County, Baltimore, **MD 21250**. Applicants will be accepted until a suitable candidate is found. The University of Maryland is an Equal Opportunity/Affirmative Action Employer and applications from qualified minorities, women and individuals with disabilities are encouraged.

#### POSITIONS OPEN

#### POSTDOCTORAL POSITIONS

The Dana-Farber Cancer Institute seeks **CELLULAR IMMUNOLOGIST** experienced in flow cytometry and sterile cell culture for NK, T cell clone and cytokine studies in human and murine systems. Also seeking candidates experienced in receptor ligand interactions and DNA cloning for studies of drug adverse reactions. M.D. or Ph.D. required. Joint appointment in a Department of the Harvard Medical School. Direct curriculum vitae to: Edmond J. Yunis, 44 Binney Street, Boston, MA 02115.

**POSTDOCTORAL POSITION** available immediately to study enteral nutrient requirements for gastrointestinal growth and development in neonates. Projects will focus on the interaction between enteral nutrients and insulin-like growth factor action in the regulation of neonatal intestinal growth and function, using the parenterally-fed neonatal pig model. Position offers technical experience in stable isotope tracer methodology, mass spectrometry, RIA, histochemistry, cell culture and mRNA quantification. Experience with *in vivo* tracer metabolism or molecular techniques is desirable. Candidates with a Ph.D. should send curriculum vitae and three reference letters to: Douglas Burrin, USDA-ARS Children's Nutrition Research Center, Baylor College of Medicine, 1100 Bates Street, Houston, TX 77030. Email: dburrin@bcm.tmc.edu. USDA is an Equal Oppornuity/Affirmative Action Employer.

Childrens Hospital Los Angeles—POSTDOC-TORAL FELLOW POSITION available immediately to work on NIH-funded project focused on the biophysical mechanisms of cell motility. Studies concentrate upon the relation of focal changes in cytoskeleton and signaling the shape change and motion in human neutrophils and other cells. Experience with actin chemistry, cell culture and signal transduction and working knowledge of computers desirable. Send current curriculum vitae and names of three references to: Dr. Thomas Coates, MS #54, Childrens Hospital Los Angeles, 4650 Sunset Boulevard, Los Angeles, CA 90027. FAX: 213-660-9321; Email: tom@hemonc.usc.edu. Equal Opportunity Employer.

**POSTDOCTORAL/RESEARCH** ASSOCIATE position available immediately to study the effects of transplantation and ischemia/reperfusion injury on intestinal smooth muscle physiology. Experience in signal transduction, second messengers, biochemical measurements, receptor function, immunohistochemistry and in vim studies on muscle strips is desirable. Send curriculum vitae and names of two references to: Sushil K. Sarna, Ph.D., Department of Surgery, Medical College of Wisconsin, 9200 West Wisconsin Avenue, Milwaukee, WI 53226. FAX: 414-454-0152.

**POSTDOCTORAL POSITION** available for NMR studies of structures and dynamics of membrane associated proteins and ligand-bound complexes. Strong background in NMR spectroscopy is essential and experiences in protein structure calculations and molecular dynamics would be preferred. An NIH grant is available for a minimum of two to three years, and salary will be commensurate with qualifications and experience. Send curriculum vitae, statement of research interests, reprints, the names, addresses, and telephone numbers of three references to: Dr. Ki-Joon Shon, Department of Physiology and Biophysics, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4970. *Equal Opportunity/Affinative Action Employer.* 

#### POSTDOCTORAL FELLOW

A SENIOR POSTDOCTORAL/RESEARCH AS-SOCIATE position is available to study atherogenesis and G-protein mediated signaling in the laboratory of Ishaiahu Shechter, Ph.D., Department of Biochemistry, Uniformed Services University of the Health Sciences, Bethesda, Maryland. A strong background in molecular biology and general biochemistry is required. To apply, send cover letter, résumé, and names, addresses, telephone numbers, and Email addresses of three references to: HJF, Human Resources Department, Attention: PL2970038, 1401 Rockville Pike, Suite 600, Rockville, MD 20852. Email: hr@mail.hjf.org (send in unencoded ASCII text); FAX: 301-738-8725. Affirmatire Action/Equal Opportunity Employer. The successful candidates will be part of a company-wide technology integration team responsible for the research, design, development, implementation and support of materials handling and data acquisition processes. The primary role will be to provide effective and efficient technical efforts to resolve laboratory, field, and production plant operational problems, as well as, identify and provide feedback to management on potential process improvements. TIS is a cross-disciplinary department and includes technical expertise in computer-assisted data acquisition, instrument interfacing, image analysis, and materials processing system engineering.

#### Specific positions available include:

Automation Support Manager for Laboratories — duties to include providing technical staff management, problem solving capabilities, strategic and tactical guidance and assisting in lab processes development and modification. Additional duties may include budget management, systems evaluation/testing coordination and development of new strategies to solve lab support operations needs. PhD preferred; MS minimum with 5+ years' experience in a biological and/or engineering area with concentration in instrumentation, automation, programming and management required. (Job # 97-0039)

Laboratory Automation Support Specialist — duties to include providing front-line support to lab clients for TIS developed systems, providing technical support to mechanical/electrical systems and performing maintenance programming. MS preferred; BS minimum with 3-5 years' experience in a biological and/or engineering area with concentration in instrumentation, automation and programming necessary. (Job # 97-0041) Technology Integration Project Leader (Software Developer Emphasis) — duties to include providing programming technical expertise, problem solving, analytical capabilities and project management skills in developing software for sensoring systems and hardware interfaces as well as data collection, storage, analysis and presentation. You'll also evaluate systems and explore new technologies in solving lab, field and production plant operation needs. MS with 2-3 years' experience or minimum BS with 3-5 years' experience in a biological, agricultural and/or engineering environment with concentration in instrumentation, automation and programming required. (Job # 97-0040)

Technology Integration Project Leader (Mechanical Design Emphasis) — duties to include providing technical expertise for mechanical system development to increase thruput and quality of materials/data and reduce workloads. Other duties may include systems evaluation, testing and exploring new technologies. MS with 2-3 years' experience or minimum of BS with 3-5 years' experience in an engineering environment with emphasis in automation and mechanization is required. (Job # 97-0038)

We offer competitive salaries and excellent, comprehensive benefits such as 401(k), tuition, and relocation reimbursement. Des Moines is a prospering heartland city that ranks well above the national averages in affordability and education. Our location provides a mix of beautiful open spaces and city life advantages. For confidential consideration, please send 3 copies of your resume and cover letter indicating job number to: Jon Day, JOB # (see above), 6900 NW 62nd Avenue - Box 212, Johnston, Iowa 50131-0212.





PIONEER HI-BRED INTERNATIONAL, INC.

Pioneer Hi-Bred International, Inc., the world's largest developer, producer and marketer of agricultural seed, has immediate openings in its Technology Integration Services (TIS) department. Pioneer is an equal opportunity employer providing a competitive salary. excellent benefits and facilities plus a cooperative work

environment.



#### **VOLLUM INSTITUTE SYMPOSIUM**

"NEURONAL SIGNALING: CELL MEMBRANE TO NUCLEUS"

September 11-12, 1997 • Portland, Oregon

#### MEMBRANE TRANSDUCERS

Peter Seeburg, Max Planck Inst., Univ. of Heidelberg Shigetada Nakanishi, Tokyo University Robert Lefkowitz, Duke University Bertil Hille, University of Washington

#### CYTOSOLIC SIGNALING

Solomon Snyder, Johns Hopkins University Tony Pawson, University of Toronto Susan Taylor, University of California San Diego Christopher Miller (Banquet Speaker) Brandeis Univ.

NUCLEAR RESPONSES Michael Greenberg, Harvard University Michael Rosenfeld, University of California San Diego Eric Kandel, Columbia University

Registration Information: email to viabrsym@ohsu.edu, write to Vollum Symposium L-474, Oregon Health Sciences University, 3181 SW Sam Jackson Park Road, Portland, OR 97201 or telephone (503) 494-6932



#### POSITIONS OPEN

#### POSTDOCTORAL POSITION AVAILABLE

One or more **POSTDOCTORAL POSITIONS** are available at the University of Pennsylvania Health System in the Department of Anesthesia to participate in studies of the physical chemistry of anesthetic/protein interactions. This work is a collaborative effort between the Departments of Anesthesia and Biophysics/Biochemistry of the Medical School and the Department of Chemistry in the College of Arts and Sciences. Training in pharmacology, biochemistry, and protein chemistry preferred. Interested applicants should send a curriculum vitae and letters of recommendation to: Roderic G. Eckenhoff, M.D., Associate Professor of Anesthesia, Department of Anesthesia, 7 Dulles Building, University of Pennsylvania Health System, 3400 Spruce Street, Philadelphia, PA 19104-4283. Email: reckenho@mail.upenn. edu.

#### POSTDOCTORAL POSITION IN NEUROTROPHIC GENE TRANSFER

**POSTDOCTORAL POSITION** is available immediately for a highly motivated individual to study liposomemediated neurotrophic gene transfer in CNS and neuronal recovery from traumatic brain injury. Strong backgrounds in molecular neuroscience and rodent surgery skills are desirable. Send curriculum vitae, three letters of reference, and a statement of research interests to:

Dr. Keyi Yang Department of Neurosurgery University of Texas Houston Health Science Center 6431 Fannin Street Houston, TX 77030 FAX: 713-500-7787.

**POSTDOCTORAL POSITION** available for a study on molecular and cell biology of liver fibrosis. Specific aims include gene regulation of cytokines/chemokines and gene therapeutic modalitics. Applicants must have a Ph.D. degree in molecular biology or biochemistry. Send curriculum vitae to: Dr. H. Tsukamoto, USC School of Medicine, 1355 San Pablo Street, AHC 125, Los Angeles, CA 90033-4581.

**POSTDOCTORAL FELLOW.** Molecular biology studies of gene and protein regulation in human cancers including leukemia cell differentiation and prostate cancer growth regulation. Ph.D. with molecular biology background is required. Send curriculum vitae to: **Dr**. J. W. **Chiao**, **Department of Medicine**, **New York Medical College, Valhalla, NY 10595.** 

**POSTDOCTORAL POSITION** is available immediately to study structure/function of human factor VIII (anti-hemophilic factor) and its interactions with other blood clotting proteins. Candidates should have a recent Ph.D. in Biochemistry or related field with a strong background in protein characterization and enzymology. Some experience in molecular biology would be useful. Send curriculum vitae and names of three references to:

#### Dr. Philip J. Fay Vascular Medicine Unit P.O. Box 610 University of Rochester School of Medicine Rochester, NY 14642

An Equal Opportunity/Affirmative Action Employer.

#### POSTDOCTORAL POSITION HARVARD MEDICAL SCHOOL

Position available immediately to study regulation and function of a new family of molecular chaperones. Ongoing work examines transcription, protein folding, and signaling in mammalian cells. Background in molecular biology or protein biochemistry preferred. Must be U.S. citizen or permanent resident as the position is supported by an NIH training grant. Send curriculum vitae and references to: Steven R. Gullans, Ph.D., Renal Division, Brigham & Women's Hospital, Harvard Medical School, 75 Francis Street, Boston, MA 02115. Email: gullans@bustoff.bwh.harvard.edu. An Equal Oppertunity/Affinative Action Employer.

**POSTDOCTORAL POSITION** available immediately to study protein-protein interactions and proteinnucleic acid interactions in transcription, heat shock, and repair mechanisms. Strong record of experience in organic synthesis, physicochemical analysis of proteins, biochemistry, NMR, Mass spec, HPI.C. Send curriculum vitae with names and telephone numbers of references to: Dr. Srin Sastry, Assistant Professor, Box 174, The Rockefeller University, New York, NY 10021.

#### POSITIONS OPEN

#### POSTDOCTORAL POSITION IN MOLECULAR AND CELLULAR BIOLOGY

**POSTDOCTORAL POSITION** is available immediately for a highly motivated scientist with Ph.D. in Molecular Biology/Biochemistry to study molecular mechanisms through which natural and synthetic retinoids regulate growth, differentiation, and apoptosis of skin cells, using transgenic mouse models (see *Gene & Development*, 11:59–71, 1996). Experiments will involve Southerm/Northern/Western blotting, gel shifts, histological analyses, and flow cytometry. The position offers long-term stable funding and excellent opportunity for career development.

Applicants should send curriculum vitae with names of three references to: Dr. Jia-Hao Xiao, Department of Dermatology, University of Michigan, Med Sci I, Room 6447, 1150 West Medical Center Drive, Ann Arbor, MI 48109-0609. FAX: 313-647-0076.

We encourage applications from candidates who will enrich and contribute to the cultural diversity of our University.

#### MACROMOLECULAR CRYSTALLOGRAPHY

An NIH-funded **POSTDOCTORAL POSITION** is available immediately to work on X-ray crystallographic structure determinations of nucleic acid complexes with MMLV reverse transcriptase. Candidates should have extensive experience in one or more of the following areas: macromolecular crystallography, small molecule crystallography, computational chemistry, molecular biology, or protein purification. Projects available include complexes for which crystals diffracting to high resolution have already been obtained. Interested candidates should send a curriculum vitae and three letters of recommendation to: Millie Georgiadis, Waksman Institute, Rutgers University, P.O. Box 759, Piscataway, NJ 08855. Email: georgiadis@mbcl.rutgers.edu.

#### POSTDOCTORAL POSITION-BIOLOGY DNA REPAIR/MUTAGENESIS

City of Hope National Medical & Beckman Research Institute has a position available to work in the field of DNA repair and Mutagenesis in mammalian cells (see *Science*, **274**:430; *Mol. Cell. Biol.*, **17**:219; *Biodennistry*, **35**: 15693). A Ph.D. plus experience in molecular biology techniques (such as PCR, DNA sequencing, protein-DNA interactions) is required. Available immediately. Please send curriculum vitae and names of references to: Dr. Gerd P. Pfeifer, Department of Biology, Beckman Research Institute of the City of Hope, Duarte, CA 91010. FAX: **818-358-7703; Email: gpfeifer@** smtplink.coh.org. Equal Opportunity Employer.

#### POSTDOCTORAL POSITION

A two-year opportunity exists to study aspects of the pathogenesis of *Borrelia bungdorferi* infection in an NIHfunded project. Experience in cloning, and overexpression and purification of proteins is highly desirable. Submit curriculum vitae, and the names, addresses and telephone numbers of three references to: **Dr. Jorge Benach**, **Department of Pathology, Basic Health Sciences 9T/ 134, SUNY at Stony Brook, Stony Brook, NY 11794. FAX: 516-444-3863.** Compensation provided by Health Research, Inc. *Affirmative Action/Equal Opportunity Employer.* 

#### POSTDOCTORAL POSITIONS MOLECULAR ONCOLOGY/CELL DIFFERENTIATION HARVARD MEDICAL SCHOOL

Positions available for Ph.D.s to study gene expression and function during hematopoiesis and to characterize the molecular mechanisms of malignant transformation associated with chromosome translocation in leukemia. Applicants should be highly motivated, with strong background in molecular/cellular biology or biochemistry. Send curriculum vitae and references to: Dr. Dong-Er Zhang, Room 953, Harvard Institutes of Medicine, 77 Avenue Louis Pasteur, Boston, MA 02115. FAX: 617-667-3299.

POSTDOCTORAL POSITION is available to study functional and molecular aspects of ion channels in mammalian retinal pigment epithelial cells. The position requires the application of whole cell and single channel recording techniques. Experience in electrophysiology is essential. Send curriculum vitae and the names of three references to: Dr. Bret A. Hughes, W.K. Kellogg Eye Center, University of Michigan, 1000 Wall Street, Ann Arbor, MI 48105. Email: bhughes@umich.edu.

#### POSITIONS OPEN

## POSTDOCTORAL POSITION IN VASCULAR BIOLOGY

Position available for Ph.D. and/or M.D. to study vascular biology utilizing gene transfer technology. Areas of active interest include development of recombinant adenovirus systems for transfer of genes into the vascular wall and application of gene transfer systems to animal models of vascular injury (atherosclerosis, restenosis). A strong background in vascular biology, including tissue culture methods, is important.

Please send or fax curriculum vitae, summary of research experience, and names and telephone numbers of three references to: Daniel Z. Fisher, M.D., Ph.D., Department of Cardiovascular Medicine, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, MA 01655. FAX: 508-856-5207; Email: daniel.fisher@bangate.unmed.edu.

Two **POSTDOCTORAL FELLOWSHIPS** available immediately to study chaperone-assisted assembly of enzymes of the mitochondrial respiratory chain in yeast, with emphasis on cooperative interactions between nuclear and mitochondrial proteins. Ph.D. and strong background in molecular biology and/or protein chemistry required. Send curriculum vitae, brief statement of research interests, and names, addresses, and telephone numbers of three references to: **Dr. Mary Crivellone, University of Medicine and Dentistry of New Jersey, Department of Molecular Biology, 2 Medical Center Drive, Stratford, NJ 08084. Telephone: 609-566-6272; FAX: 609-566-6291; Email: crivelm@ undnj.cdu.** University of Medicine and Dentistry of New Jersey, is an Affirmative Action/Equal Opportunity Employer. Minorities/ Feindles/Disabled/Vetruns, and a member of the University Health System of New Jersey.

#### IMMUNOLOGY POSTDOCTORAL POSITION

A POSTDOCTORAL POSITION is available immediately to study the regulation of B cell development. There are two principal projects in the laboratory. One focuses on selection of pre-B cells in mice and the differential survival of these cells. The second focuses on the regulation of autoreactive B cells in normal and autoimmune mice. B cells specific for nuclear antigens relevant to lupus are investigated. Both projects rely heavily on the use of transgenic mice and flow cytometry. Experience with molecular biology and flow cytometry is desired. Interested individuals should send a curriculum vitae and names of three references to: Stephen H. Clarke, Ph.D., Department of Microbiology and Immunology, CB 7290, 804 FLOP, Chapel Hill, NC 27599; FAX: 919-962-8103.

#### POSTDOCTORAL FELLOWSHIP

We are seeking a candidate with experience in molecular biology and biochemical techniques to participate in studies on regulation of genes encoding drug-metabolizing enzymes in response to oxidative/chemical stress. The studies will involve the use of tissue culture and animal (transgenic and knockout) model systems. Send curriculum vitae/bibliography and three letters of reference to: Dr. Anil Jaiswal, Pharmacology, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111, USA.

**POSTDOCTORAL POSITION** available for an NIH-funded project to study structure/function of ATP-gated ion channels of the P2X receptor family using immunochemical, mutagenesis, patch-clamp and yeast two-hybrid approaches. Applicants should have a strong back-ground in molecular biology and/or electrophysiology. Send curriculum vitae and names of three references to: Mark Voigt, Ph.D., Department of Pharmacological and Physiological Science, Saint Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104. Equal Opportunity/Affirmative Action Employer. Homen and minorities are enounged to apply.

Applications are invited for **POSTDOCTORAL FEL-LOWSHIPS** at the University of Virginia in rehabilitation engineering, cellular engineering, and biomechanics of: vehicle injuries, wound healing, pediatric gait analysis or bone/cartilage growth and repair. You must be a U.S. citizen or permanent resident pursuing a research career in rehabilitation engineering and should submit a curriculum vitae to: Milton Adams, A114 Thornton Hall, University of Virginia, Charlottesville, VA 22903. The University of Finginia is an Equal Opportunity Employer. Women, minorities, and persons with disabilities are encouraged to apply.

#### RAL POSITION



#### At Parke-Davis Pharmaceutical Research Division of Warner-Lambert Company, inspired science and a strategy of innovation has made us a leader in the pharmaceutical industry. Currently, we have an exciting opportunity in our Biochemistry/ Molecular Biology Department for a Postdoctoral Research Fellow. The Road to Discovery Runs Through The selected individual will pursue Parke-Davis. leading-edge research in metalloproteases implicated in cardiovascular and inflammatory diseases. This project will involve basic research in enzyme cloning and expression as well as biochemical and biophysical studies. The chosen candidate will be strongly encouraged to publish in peer-reviewed journals and make presentations of his/her results at conferences. This individual will have a highly interactive relationship with the Biological Chemistry Department at the University of Michigan.

Postdoctoral Research Fellow Biochemistry/Molecular Biology

A recent Ph.D. in Biochemistry, Molecular Biology or a related discipline along with a strong background in enzymology, cloning, site-directed mutagenesis and expression of mammalian proteins are required

PARKE-DAVIS

Members of the Parke-Davis team enjoy competitive salaries, benefits and career growth potential nterested candidates should please send, fax or e-mail your resume along with a list of references to: Parke-Davis Pharmaceutical Research, Human Resources Department, BOX: CJM-963181, 2800 Plymouth Road, Ann Arbor, MI 48105, Fax: (313)998-3394. E-mail: resume@aa.wi.com.

When submitting your resume please follow these guidelines to ensure that your resume will electronically scan legibly: Please use white laser quality paper; standard fonts such as Courier or Helvetica #10 point or larger; and avoid the use of bold, italics, underlines, borders, boxes and graphics.

Equal Opportunity in action. Smoke-free work environment



## FACULTY POSITIONS IN CARDIOVASCULAR PATHOLOGY Institute for Medicine and Engineering and Department of Pathology and Laboratory Medicine

Applications are invited for several tenure track faculty appointments at the Assistant Professor and/or Associate Professor level to be made in the Department of Pathology and Laboratory Medicine in association with the Institute for Medicine and Engineering (IME).

The School of Engineering and Applied Science and the School of Medicine have defined Biomedical Engineering as a strategic commitment for the 21st Century. The Schools have jointly established the IME to enhance interdisciplinary research and academic programs at the interface of medicine and engineering. The IME will be located in the new Vagelos Research Laboratory Building in the Institute for Advanced Science and Technology complex, adjacent to both schools,

Candidates, who should possess M.D. and/or Ph.D. degrees, are qualified in an area relevant to Cardiovascular Pathology and Laboratory Medicine, and have interests or training relevant to biomedical engineering. IME priority areas include: angiogenesis, inflammation, and vasotonic regulation, as they relate to tissue, cellular, and molecular engineering.

Additional criteria for selection will include evidence of creative, fundamental research and a strong indication of research funding potential or record commensurate with the level of appointment. Candidates will be expected to establish new research activities to complement and strengthen existing research areas, and participate in interdisciplinary academic programs. Consideration of candidates will begin on receipt of applications and continue until positions are

Applicants should send a full curriculum vitae, names and addresses of 3 references, a statement of research interests, and 3 copies of recent publications to:



Dr. Peter F. Davies, Chair, Faculty Search Committee University of Pennsylvania Institute for Medicine and Engineering 117 Hayden Hall 3320 Smith Walk Philadelphia, PA 19104-6392

For more information, visit the IME website at: http://www.med.upenn.edu/ime AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

#### POSITIONS OPEN

#### RNA MOLECULAR BIOLOGY

**POSTDOCTORAL POSITIONS** available to investigate RNA recognition by eukaryotic RNA-binding proteins or prokaryotic gene regulation at the level of mRNA stability. Molecular biological, biochemical, and genetic strategies will be used (see *Cdl*, **87**: 115, 1996, *PNAS*, **92**: 11859, 1995, *Genes Dev.*, **9**: 84, 1995). Send curriculum vitae, a brief summary of research experience, and the names of two references to: **Dr. Joel Belasco**, **Skirball Institute**, **New York University Medical Center**, **540 First Avenue**, **New York**, **NY 10016**.

#### POSTDOCTORAL POSITIONS

**POSTDOCTORAL POSITIONS** are available immediately to develop novel human brain tumor models in immunocompromised mice to study molecular, biochemical, and pharmacological aspects of such malignancies. We are particularly interested in the regulation of cell growth, differentiation, apoptosis and invasion of these tumors *in vivo*. The successful candidate must have a Ph.D. degree with expertise in molecular biology, biochemistry, and/or molecular pharmacology with an interest in neurobiology. Childrens Hospital Los Angeles is a leading pediatric research institution which offers an exciting, innovative research environment, a competitive salary and opportunities for career development of the candidate. Applicants should send their curriculum vitae and names of three references to:

Dr. E. Bogenmann or Dr. V. I. Avramis Division of Hematology/Oncology MS 57 Childrens Hospital, Los Angeles 4650 Sunset Boulevard

Los Angeles, CA 90027

Childrens Hospital Los Angeles is an Equal Opportunity Employer.

#### POSTDOCTORAL POSITION UNIVERSITY OF PENNSYLVANIA

**POSTDOCTORAL POSITION** is available for study and training with a group of investigators interacting in programs concerning the Metabolism and Molecular Biology of Connective Tissues. Topics include: Structure and Biology of Basement Membranes, Molecular Biology of Elastin, Immunopathology of Renal Disease, Molecular Biology of Collagen Genes, Cell Biology of Pulmonary and Vascular Cells, Molecular Biology of Cartilage Matrix, Keratinocyte Differentiation and Matrix Synthesis.

Send résumé to: Nicholas A. Kefalides, M.D., Ph.D., Director, Connective Tissue Research Institute, University of Pennsylvania, University City Science Center, 3624 Market Street, Philadelphia, PA 19104. Candidates should hold U.S. citizenship or permanent resident status. The University of Pennsylvania is an Affirmative Action/Equal Opportunity Educator and Employer.

#### POSTDOCTORAL FELLOWSHIP IN IMMUNOLOGY AND INFECTIOUS DISEASES

A position is available in the Department of Immunology and Infectious Diseases at the Research Institute, Palo Alto Medical Foundation with a co-appointment at Stanford University for a Ph.D. or M.D. to investigate mechanisms of host resistance against opportunistic pathogens. Project includes studies of the role of cellular immunity, cytokines, and genetic regulation of the immune response. Appropriate prior experience in immunology/molecular biology/cell biology preferred. Send curriculum vitae and names and addresses of three references to: Dr. Yasuhiro Suzuki, Research Institute, Palo Alto Medical Foundation, 860 Bryant Street, Palo Alto, CA 94301. FAX: 415-329-9853. Equal Opportunity Employer.

**POSTDOCTORAL** (one year renewable) available June 1 to conduct research on nitrogen cycling and gas production in temperate forest ecosystems. Ph.D. in microbiology, soils, ecology, or related field required. Competence in analytical biogeochemistry and/or stable isotope techniques is advantageous. Send application letter, curriculum vitae, and three letters of reference by May 1 to: Dr. Peter Groffman, Institute of Ecosystem Studies, Box AB, Millbrook, NY 12545–0129. Email: capg@vm.marist.edu. An Equal Opportunity/Affinnative Action Employer.

#### POSITIONS OPEN

#### WAYNE STATE UNIVERSITY POSTDOCTORAL FELLOW

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately for recent graduates Ph.D. or M.D./Ph.D.) in cellular or molecular biology with an interest in mechanisms of cancer metastasis. Project involves animal model of prostate cancer metastasis and molecular and cellular investigations into the interaction of carcinoma cells and bone marrow. The work will involve state-of-the-art molecular and cellular biological techniques. Candidates should have demonstrated experience with standard molecular biology and cell biology techniques. An interest in metastasis is desirable. Preference will be given to candidates with demonstrated research ability and strong written communication skills. Minimum salary S27,000, dependent upon experi-ence. **Drs. Michael L. Cher** and **Kenneth V. Honn** of the Departments of Urology, Pathology and Radiation Oncology are the project directors. Please send brief statement of research interests, capabilities and goals, cur-riculum vitae, addresses, FAX/telephone numbers, and three references to: **Dr. Michael L. Cher, M.D., De**partments of Urology and Pathology, Wayne State University, 4160 John R, Suite 1017, Detroit, MI 48201. Email: mcher@med.wayne.edu. Wayne State University is an Equal Opportunity/Affirmative Action Employer. All buildings, structures, and vehicles at Wavne State University are smoke-free. Wayne State University-People working together to provide quality service.

#### POSTDOCTORAL POSITION VANDERBILT UNIVERSITY MEDICAL CENTER

A **POSTDOCTORAL POSITION** is immediately available in the Department of Microbiology and Immunology at the Vanderbilt University Medical Center. Areas of investigation will include the molecular biology of NF-kB/Rel transcription factors and their role in human T-cell growth, development, and HIV gene expression (*PNAS*, **92**:11259; *Immunity*, **5**:563, 1996). Minimum requirements include M.D. and/or Ph.D. degree(s) and significant research experience in mammalian tissue culture, gene transfection, protein purification, and transgenic/knock-out technology. Please send your résumé, salary requirements, and three references to:

#### Dean Ballard 802 Light Hall Vanderbilt University Medical Center

Nashville, TN 37232–0295 Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available immediately for an entry-level postdoctoral fellow to collaborate with **D.R. Matteson** and **M.P. Blaustein** in a multidisciplinary study of peptide toxin interactions with voltage dependent K channels. The collaboration includes investigators with expertise in NMR spectroscopy, patch clamp methods, molecular biological techniques, and protein biochemistry. The applicant's role would be to characterize toxin interactions with K channels by performing patch clamp experiments. The applicant must be experienced with whole-cell and single channel patch-clamp recording and analysis. The applicant must be a U.S. citizen or have a residence visa. To apply, send curriculum vitae and two letters of recommendation to: **Donald R. Matteson**, University of Maryland, Department of Physiology, 660 West Redwood Street, Baltimore, MD 21201. Email: dmatteso@umabnet.ab.umd.edu.

**POSTDOCTORAL POSITION** available to identify and examine erb-B2 (and other) tumor antigen-specific peptides and/or antibodies using combinatorial approaches and phage display. Experience in molecular biology and biochemistry is required. Please send curriculum vitae (with two key publications) and the names of three references to: Dr. Susan Deutscher or Dr. Thomas P. Quinn, Biochemistry Department, University of Missouri, Columbia, MO 65211. Applications from women and minorities are particularly encouraged. University of Missouri is an Equal Opportunity/Affirmative Action Employer.

**PRE- AND POSTDOCTORAL FELLOWSHIPS** in retrovirology to study the molecular biology and immunopathogenesis of retroviral infections and gene vector development. State-of-the-art facilities among 25 investigators in the most comprehensive health sciences center in America. Send curriculum vitae and names of three references to: **Dr. Michael Lairmore, The Ohio State University, Center for Retrovirus Research**, **1925 Coffey Road, Columbus, OH 43210–1093.** An Equal Opportunity/Affinitative Action Employer.

#### POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study genetics of cardiovascular and neuromuscular disorders. Studies involve linkage analysis, positional cloning, and analysis of genes involved in myopathic disorders. Send curriculum vitae and names of three references to: E. McNally, M.D., Ph.D., Section of Cardiology, University of Chicago, 5841 South Maryland MC6088, Chicago, IL60637. Email: emcnally@ medicine.bsd.uchicago.edu. Eqnal Opportunity Employer.

#### BIOCHEMISTRY MOUNT HOLYOKE COLLEGE TEACHING/POSTDOCTORAL POSITION

A POSTDOCTORAL POSITION is available for three years, renewable yearly, starting July 1, 1997 for an individual interested in combining teaching and research. Research will focus on topics related to the prokaryotic transcription initiation mechanism. Participation in undergraduate teaching of biochemistry and molecular biology courses and laboratories will be phased in gradually. Mount Holyoke College is an undergraduate liberal arts college for women that encourages both teaching and research by its faculty, and research participation by its science students; the college has excellent research facilities. Persons interested should send résumé, description of research interests and accomplishments, and three letters of recommendation to: Lilian M. Hsu, Program in Biochemistry, Mount Holyoke College, South Hadley, MA 01075. Review of completed applications will begin on May 1, 1997. Mount Holyoke College is committed to fostering cultural diversity and multicultural awareness in its faculty, staff, and students and is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are especially encouraged to apply.

**POSTDOCTORAL FELLOWSHIP** in the Molecular Basis of Fracture Healing available in the Musculo-Skeletal Research Laboratory (MSRL), State University of New York at Stony Brook. The MSRL is a multidisciplinary research group that focuses on response of skeletal tissues to biophysical stimuli. The successful candidate will be responsible for experimental studies on animal models of fracture healing, to study gene expression during the healing process. The goal of this work is to identify the upregulation of genes using differential mRNA display. This position is funded for three years and can start immediately. Please send résumé and names of three references to:

#### Michael Hadjiargyrou, Ph.D. Musculo-Skeletal Research Laboratory School of Medicine HSC T18-030 State University of New York Stony Brook, NY 11794-8181

Stony Brook is an Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL FELLOWSHIP POSITIONS** are available in a molecular/behavioral neuroscience laboratory. General research topics include drug addiction, transporters, neuropeptides, drug receptors, feeding mechanisms, and neurotransmitters. Desirable, but not required, experience includes: receptor binding, rodenistry, Northern blotting, antisense technology. Experience with some of these techniques is highly desirable. Either a Ph.D. or M.D., or both is required. No postdoctoral experience is required, although previous postdoctoral experience may be helpful. Salary will be competitive. Reply to: Michael J. Kuhar, Ph.D., Yerkes Primate Research Center, Emory University, 954 Gatewood Road NE, Atlanta, GA 30329. Telephone: 404-727-1737; FAX: 404-727-3278. Mention vacancy 5711370. Emory University is an Equal Employment Opportumity/Affirmative Action Employer.

#### POSTDOCTORAL POSITION HARVARD MEDICAL SCHOOL

Field of vascular biology and/or obesity. Study the role of leukocyte adhesion receptors in inflammation, atherosclerosis, and lipid metabolism. Prefer candidates with experience working with mice. Publications in international journals are a prerequisite. Curriculum vitae to: Denisa D. Wagner, Ph.D., Associate Professor of Pathology, Harvard Medical School, The Center for Blood Research, 800 Huntington Avenue, Boston, MA 02115. FAX: 617-278-3368. An Equal Opportunity Employer.

### TENURE - TRACK POSITION GENE THERAPY / PRIMARY IMMUNODEFICIENCY

The Clinical Gene Therapy Branch of the National Human Genome Research Institute (NHGRI) is recruiting for a tenure track position within the Division of Intramural Research, NHGRI, National Institutes of Health, Bethesda, Maryland. The successful candidate must hold a M.D. degree and have expertise relevant to gene therapy, molecular biology and immunology with experience in both basic laboratory investigation and clinical management of primary immunodeficiency disorders. The qualified individual we are seeking will perform preclinical research with the aim of developing and then implementing clinically innovative treatments for patients with inherited defects of the immune system and other disorders. We are seeking an imaginative and ambitious individual who is capable of establishing a vigorous internationally recognized independent research program with an emphasis on clinical applications of gene transfer technology. The position will provide such an individual with an opportunity to establish himself or herself as an independent investigator conducting research aimed at the further development of gene therapy.

Resources include laboratory and office space, technical support, and an independent budget to support his or her research activities. Salary depends upon previous experience. *The NIH is an equal opportunity employer*.

Applicants should include a curriculum vitae, bibliography, a list of at least 3 professional references and a description of future research plans (limited to 3 pages). The completed application should be sent by April 17, 1997 to: Dr. Richard Knazek, Chairperson, Search Committee, National Institutes of Health, 10 Center Drive MSC 1851, Building 10, Room 10C103, Bethesda, MD 20892-1851.



NYU

Faculty Position at NYU Medical Center with responsibilities in our NIDA/VA Substance Abuse Medications Development Research Unit (MDRU). Will oversee day-to-day activities in the MDRU, including planning MDRU research and protocol development, and expansion of existing research on diagnosis, pathophysiology and treatment of addictive disorders; will also help prepare reports, manuscripts, and grant applications. Applicants must have PhD or equivalent in psychology, pharmacology, neuroscience or other relevant area with experience in preclinical and/or clinical research (preferably both) related to drug dependence (particularly with emphasis on cocaine and/or opiates), clinical studies protocol design, and working with NIDA. Send resume and salary requirement to William Kelley, Human Resources Department, NYU Medical Center, 550 First Avenue, New York, NY 10016. EOE.

WHERE EXCELLENCE IS A WAY OF LIFE.

#### HEALTH SCIENTIST ADMINISTRATOR

The National Institutes of Health, National Center for Research Resources (NCRR), is seeking applicants for the position of Health Scientist Administrator, GS-601-13/14, for the Biomedical Technology area (BT). This position is located in Bethesda, MD, and is a permanent, full-time position with a salary range of \$54,629 to \$83,922 per annum, commensurate with qualifications. A recruitment bonus of up to 25 percent of base pay may be available to a non-federal selectee for this position. A relocation bonus of up to 25 percent of base pay (subject to approval) may be available to a permanent Federal employee who must relocate to accept this position.

The Health Scientist Administrator is one of the scientific program officials in the BT area responsible for administering grants and contracts, which serve multidisciplinary interests and multi-categorical purposes involving technologies. Incumbent performs several major professional functions: (1) negotiates with officials of the Nation's universities and research institutions; (2) interprets policies and procedures; (3) identifies research resource needs; and (4) advises applicants in the development of their plans for research resources; and (5) performs related scientific and administrative functions. Incumbent is required to be knowledgeable in own specialty and related scientific areas, and occasionally assists other professional staff members in administration of grants and contracts involving other scientific areas of BT. Cooperation with both grantee officials and/or other NIH entities in the review process and negotiations of these research resource grants may also be required.

Applicants for this position must have a doctoral degree in one of the life, physical, or computer sciences or bioengineering, with expertise in biochemical or biophysical technologies, and *must be a United States citizen*. Send applications to Miss Grace Walton, National Institutes of Health, National Center for Research Resources (NCRR), 900 Rock-ville Pike, Building 31, Room 3B38, Bethesda, MD 20892. For application forms and a copy of the announcement, contact Miss Grace Walton at NCRR on (301) 496-5621. Deadline for applications is April 28, 1997.

*Public Health Service Commissioned Officers* interested in performing the duties of the position within the Commissioned Corps may submit a resume to the above address.

The NIH is an Equal Opportunity Employer.

### TENURE - TRACK POSITION GENE TRANSFER TECHNOLOGY / AIDS

The Clinical Gene Therapy Branch of the National Human Genome Research Institute (NHGRI) is recruiting for a tenure track position within the Division of Intramural Research, NHGRI, National Institutes of Health, Bethesda, Maryland. The successful candidate must hold a Ph.D. or M.D. degree and have expertise relevant to gene therapy and virology with post-doctoral experience in laboratory investigation of HIV and techniques of viral vector-mediated gene transfer. The qualified individual we are seeking will perform preclinical research with the aim of developing innovative treatments for patients with HIV infection and AIDS. We are looking for an imaginative and ambitious individual who is capable of establishing a vigorous internationally recognized independent research program with an emphasis on the development of gene transfer technology useful in the clinical setting. The position will provide such an individual with an opportunity to establish himself or herself as an independent investigator conducting research aimed at the further development of gene therapy.

Resources include laboratory and office space, technical support, and an independent budget to support his or her research activities. Salary depends upon previous experience. *The NIH is an equal opportunity employer*.

Applicants should include a curriculum vitae, bibliography, a list of at least 3 professional references and a description of future research plans (limited to 3 pages). The completed application should be sent by April 17, 1997 to: **Dr. Richard Knazek, Chairperson, Search Committee, National Institutes of Health, 10 Center Drive MSC 1851, Building 10, Room 10C103, Bethesda, MD 20892-1851.**  MOLECULAR SIMULATIONS INC. is a dynamic \$50MM privately-held company revolutionizing the area of computeraided molecular science. We are the premier supplier of molecular simulation software at 3,500 leading pharmaceutical, biotech, food, agrochemical, petrochemical, materials and engineering companies. Join us as we strive to give our customers enhanced ability to improve their R&D processes.

#### LEAD ENGINEER - CHEMINFORMATICS

This individual will be responsible for designing products within MSI's ChemInformatics group; architect and build an infrastructure to manage diverse data sources for chemical, biological, toxicological, and screening data; and be involved in Web-based applications. A MS/PhD in Computer Science or Chemistry with experience in software engineering required. Must possess 4+ years' in relational database application/interface development and object-oriented design and development skills. Chemical/pharmaceutical industry experience desirable. Knowledge of ISIS or Daylight a plus.

#### **SR. SCIENTIST - BIOINFORMATICS**

The Senior Scientist will guide the scientific design and implementation of applications for search and analysis of genomic and biological data; will act as a content expert on bioinformatics and identify methods relevant to bioinformatics analyses and search strategies. A MS/PhD in Biological Sciences, experience in computer programming and with use of bioinformatics software tools, and 3+ years of experience in related research and appropriate publication records required.

#### LEAD ENGINEER - BIOINFORMATICS DATABASES

The Lead Engineer will be responsible for defining and implementing a strategy for integrating bioinformatics data from diverse sources and results from simulation methods. Will also define schema, application interfaces, and utilities necessary to create a database environment for sequence and structural data. Requires a BS/MS in CS/EE, 5+ years' experience with scientific applications of relational databases and programming, and familiarity with molecular biology.

#### **PRODUCT DEVELOPMENT SCIENTIST - PROTEIN STRUCTURES**

The selected individual will develop protein modeling tools and structural databases for both expert modeling systems and future web-based applications. Must have demonstrated scientific background in computational methods of structural analysis and modeling, and proficiency in Fortran and C. Experience of WEB development, databases C++ and/or Java desired, but not essential. This position is based in MSI's development group at the University of York.

We offer a highly competitive compensation and benefits program. Interested candidates should submit their resumes to Judith M. Ohm, Director, Human Resources at MSI, 9685 Scranton Road, San Diego, CA 92121, Fax (619) 458-0136 or E-Mail johm@msi.com EOE/AA



#### EASTERN REGIONAL RESEARCH CENTER

USDA/Agricultural Research Service/Eastern Regional Research Center (ERRC), has several openings for permanent full-time **research scientists**. ERRC is located on an attractive 27 acre campus just outside of Philadelphia, in Wyndmoor, Pennsylvania. It has over 250 scientists, engineers and support staff working in diverse areas of agricultural research. Employees enjoy a flexible work schedule and have access to state-of-the-art instrumentation, a computer center and library.

•Microbiologist, GS-11/12 (ARS-A7N-067)

The individual will be a member of a research team developing biosensor techniques for rapid and specific detection of pathogenic bacteria in food systems.

#### Food Technologist, GS-11/12 (ARS-X7N-0084)

As a member of a team developing approaches to microbiological risk assessment in food systems, the individual will apply food engineering principles to conduct laboratory research and develop predictive models for the inactivation and survival of bacterial pathogens during the heating and cooling of processed foods.

#### •Food Technologist, GS-11/12 (ARS-X7N-0085)

As a member of a team developing approaches to microbiological risk assessment in food systems, the individual will conduct laboratory and in-plant research and develop predictive models for the growth and survival of bacterial pathogens on animal products.

#### •Molecular Biologist, GS-12/13 (ARS-X7N-0073)

As a member of a team, the individual will develop rapid methods for the detection of foodborne pathogenic bacteria and will determine the influence of different food environments on expression of virulence genes and on enhanced survival.

#### Microbiologist, GS-11/12 (ARS-X7N-0083)

The individual will be located at Delaware State University and will conduct research on the development of rapid methods and intervention technologies to ensure the microbiological safety of aquaculture and aquaculture food products.

For consideration for all positions, candidates must have demonstrated ability to plan, conduct and publish research results. A Ph.D is desirable. Salary range: \$38,391 to \$62,011 per year. Applicants must be U.S. citizens. For application package, contact **Olga Afanador at (215) 233-6571**. Projected completion for filling all positions is **9/30/97**.

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Agricultural United States Research Department of Service Agriculture

## Director of Pharmacology

EPIX Medical, Inc. is a rapidly growing pharmaceutical company focused on the discovery and development of injectable contrast-enhancing agents for magnetic resonance imaging (MRI). As we enter phase two clinical trials of MS-325, a vascular agent which enables MRI to produce high quality images of blood vessels and blood flow in patients, we are adding the position of Director of Pharmacology to our staff.

You will lead a group of scientists in the design and performance of experiments, including surgery, imaging, and ADME analysis. The position requires a Ph.D., demonstrated leadership and communication skills, and four or more years experience, preferably in a pharmaceutical industry.

Please send your resume with cover etter, indicating job code DP, to EPIX Medical, Inc., 71 Rogers Street, Cambridge, MA 02142-1118, Attn: Human Resources; FAX 617-499-1414. AA/EOE





#### FACULTY POSITION Department of Plant Pathology Cornell University

Applications are invited for a tenure-track position at the Assistant or Associate Professor level in the area of **Plant Virology**. A Ph.D. in plant pathology, virology or related field is required and applicants at the Assistant Professor level should have significant postdoctoral experience. The successful applicant must have a background in plant virology and the demonstrated ability to develop a highly competitive research program emphasizing fundamental questions in the area of molecular genetic and biochemical analyses of plant virus interactions with their host plants and/or their vectors. Teaching responsibilities will include an introductory graduate lecture/laboratory course in plant virology, an upper level graduate course emphasizing molecular virology, and coordinating a current topics discussion. Send curriculum vitae, statement of teaching and research goals for the first three years (3 pages maximum), transcripts, and arrange to have three letters of recommendation sent to: Dr. Stewart M. Gray, Department of Plant Pathology, Cornell University, Ithaca, NY 14853. Email: smg3@cornell.edu. Review of applications will begin July 1, 1997. Additional information can be found at http:// ppathw3.cals.cornell.edu. Cornell is an Equal Opportunity Employer and invites applications from women and underrepresented minorities.

#### NATIONAL CANCER INSTITUTE

Division of Cancer Treatment, Diagnosis, and Centers Cancer Diagnosis Program Technology Development Branch Opening Date: 03/31/97 Closing Date: 04/28/97

> Announcement Number: CA-97-2313

Health Sciences Administrator (Interdisciplinary)

#### GS-0601/0401/0403/1320-13/14

The Technology Development Branch (TDB), a new Branch in the Cancer Diagnosis Program, DCTDC, located in Rockville, MD, facilitates the development of innovative technologies and their application to cancer diagnosis and prognosis. The Branch interacts extensively with biologists, technology developers, and clinical oncologists in academia and industry to assure that the most promising scientific opportunities are exploited in laboratory and clinical investigation. The successful applicant will serve as the Program Director for Diagnostics Technology, a program which supports research focusing on the development of improved technologies for the molecular analysis of tumor specimens. The Program Director will be responsible for assessing scientific progress in broad areas of science in order to identify scientific needs and scientific opportunities. He/she will participate in establishing goals, developing plans and setting priorities for addressing these needs and opportunities.

Salary - Ranges from \$54,629 -\$83,922 per annum.

Benefits - Health & life insurance options, retirement, paid holidays, vacation & sick leave.

U.S. citizenship os required. Applicants must meet basic experience and educational qualification requirements for Health Science Administrator. In order to validate your qualifications, it is necessary to describe your proficiency in the following knowledge, skills and/or abilities (KSAs): 1) Knowledge required to manage a program aimed at development and/or application of innovative technologies, including nucleic acid and protein based technologies to biological research; 2) Ability to plan, develop and evaluate research programs including the formulation of program objectives and goals and assessing research progress; 3) Ability to establish and maintain professional relationships with scientists in academia, industry and Government. For further qualification requirements, applications procedures and other additional information, please contact Mr. Kuong Tran, Personnel Management Assistant, NCI at (301) 402-2812. Please submit an Application for Federal Employment or a resume to:

The National Cancer Institute, Personnel Management Branch, 6120 Executive Boulevard, Executive Plaza South, Room 550 Rockville, Maryland 20852

A current curriculum vitae & bibliography must accompany applications for this position

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## Postdoctoral Research Opportunity

Boehringer Ingelheim Pharmaceuticals, Inc. is seeking an outstanding Scientist to conduct biomedical

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research in a pharmaceutical R&D environment. Explore the opportunity for postdoctoral research in surroundings where creativity and innovation drive the search for novel drug therapies targeting critical human diseases with unmet therapeutic needs.

## **CD40-Mediated Signaling**

One postdoctoral position is available beginning June/July, 1997 in the Department of Immunological Diseases. The successful candidate will study the cell biology and biochemistry of CD40-mediated signal transduction in different antigen presenting cells. Candidates must hold a Ph.D. in the Biological Sciences, highly developed analytical skills, and excellent oral and written communication skills. Experience in cellular immunology and basic biochemistry preferred.

Boehringer Ingelheim's R&D facility is located in a campus-like setting in a beautiful area of Western Connecticut. We offer excellent facilities and a supportive and challenging environment. For an opportunity to contribute to our innovative programs, please send your curriculum vitae to: **Boehringer Ingelheim Pharmaceuticals, Inc., Dept. JP-PD, 900 Ridgebury Road, P.O. Box 368, Ridgefield, CT 06877-0368; or email:jpetraglia@bi-pharm.com** 

We are an equal opportunity employer (M/F/D/V). As a progressive health care company, we have a non-smoking environment.



### **RESEARCH POSITIONS**

#### MOLECULAR NEUROBIOLOGY OF DRUG ABUSE

Fellow and senior fellow positions are available to pursue the molecular neurobiology and genetics of drug Candidates should have abuse. expertise in molecular biology and/or molecular genetics, with preference given to experience in neuropharmacology. Ongoing work examines the structure and function of the dopamine transporter/cocaine receptor µ opiate receptor/heroin receptor, genes regulated by abused drugs, and genes important for interindividual differences in substance abuse vulnerability in animal models and humans. If you hold a doctoral degree(s) and would like to be considered for a position, please send a cover letter, curriculum vitae with bibliography, statement of research interests and goals (not to exceed two pages), and three letters of recommendation to: G.R. Uhl, M.D., Ph.D., Molecular Neurobiology, NIDA/NIH, P.O. Box 5180, Baltimore, Maryland 21224. Competitive salary levels with full benefits - an Equal Opportunity Employer. Candidates must be U.S. citizens or permanent residents.

#### POSTDOCTORAL POSITIONS DEVELOPMENTAL BIOLOGY OF THE CIRCULATORY SYSTEM IN THE ZEBRAFISH

#### NATIONAL INSTITUTES OF HEALTH

Postdoctoral opportunities are available to study the embryonic origins of the vertebrate circulatory system using the zebrafish. A variety of genetic, molecular genetic, experimental embryologic, and molecular approaches are employed to identify and characterize novel genes involved in blood and vessel development and to examine how new and previously identified genes guide the specification and patterning of vascular and hematopoietic tissues during early development. Applicants must be an M.D. or Ph.D., and have less than 5 years of postdoctoral experience. Positions are available July 1997. Please send a cover letter with a brief description of research experience and interests, a curriculum vitae, bibliography, and the names of 3 references with phone numbers to:

Brant M. Weinstein, Ph.D. Unit on Vertebrate Organogenesis Laboratory of Molecular Genetics NICHD National Institutes of Health Building 6B, Room 309 Bethesda, MD 20892 email: weinstein@helix.mgh.harvard.edu NIH is an Equal Opportunity Employer.

### DIRECTOR BROOKHAVEN NATIONAL LABORATORY

Associated Universities, Inc. (AUI) invites applications or nominations for the position of Director of Brookhaven National Laboratory (BNL) at Upton, Long Island, New York. AUI, a nonprofit corporation with headquarters in Washington, D.C., manages BNL for the U.S. Department of Energy (DOE) and the National Radio Astronomy Observatory for the National Science Foundation.

Brookhaven National Laboratory is a multidisciplinary laboratory whose scientific staff conducts basic and applied research in High Energy, Nuclear, and Condensed Matter Physics, Chemistry, Engineering, Biology, Medicine, and the Environment. Frontier research programs include the participation of thousands of guest researchers utilizing specialized BNL research facilities, such as the 33 GeV proton accelerator (AGS), the High Flux Beam Reactor, the Tandem Van de Graaff, and the National Synchrotron Light Source. A powerful new colliding beam accelerator, the Relativistic Heavy Ion Collider that will probe conditions early in the Big Bang, is nearing completion.

Candidates should be either experienced scientists or science administrators of national stature with successful records of working with research organizations. Candidates should have demonstrated leadership in scientific affairs, an awareness of and concern for environmental issues and public understanding of science, and the ability to work constructively and effectively with Federal Agencies and local governments.

Applications or nominations are requested by May 1, 1997. Inquiries, nominations, or applications with resumes should be directed to:

Dr. Barry S. Cooperman Chairman, Search Committee Associated Universities, Inc. 1400 16th Street, NW Suite 730 Washington, DC 20036 AUI is an Equal Opportunity/Affirmative Action Employer

**GLOBAL CAREER OPPORTUNITIES** 

## **University of Basel**

## Professor of Theoretical Physics

The Department of Physics and Astronomy invites the applications for a faculty position in theoretical condensed matter physics at the Extraordinarius level (associate professor).

Candidates should have demonstrated their ability to carry out independent research at the highest level. There is some preference for a candidate in the field of mesoscopic physics, but excellent candidates in any area of specialization that will complement existing programs in condensed matter (see Physics Department home page at http://monet.physik.unibas.ch) will be given serious consideration. The successful candidate is expected to participate in the teaching (in German within two years) of the curriculum in theoretical physics and of special topics in condensed matter physics.

Applicants should send their curriculum vitae, publication list (indicating the 5 most important ones), list of references, a short statement of research interests, rese-

arch plans, and teaching experience, before June 1, 1997, to: Dekanat der Philosophisch-Naturwissenschaftlichen Fakultät, Missionsstrasse 64, CH-4055 Basel, Switzerland.

For further information please contact the chairman of the search committee Prof. D. Loss, loss@ubaclu.unibas.ch.

The University of Basel explicitly welcomes applications of women.

### " New York University

Provost, Medical Center and Dean, School of Medicine and Post-Graduate Medical School

Nominations and applications are invited for the position of Provost, NYU Medical Center and Dean, School of Medicine and Post-Graduate Medical School. The NYU School of Medicine is the nucleus of one of the nation's leading academic medical centers. Its history encompasses over 150 years of excellence in the education and training of physicians, in biomedical research, and in patient care. The Provost and Dean serves as the academic head of all the educational and research programs of the School. The Provost and Dean also has overall responsibility for the clinical operations conducted through the Tisch Hospital and the Medical Center's network of other hospitals and clinical affiliates.

Important qualifications include a distinguished record of scientific scholarship with demonstrated leadership in academic medicine as well as a record of effective administrative accomplishments. Candidates should have either an M.D. or an M.D./Ph.D degree.

Letters of nomination or applications should be received no later than April 11, 1997, and may be addressed to: Harvey J. Stedman, Senior Vice President, New York University, 70 Washington Square South, Room 1206, New York, NY 10012.

> NYU encourages applications from women and members of minority groups.

#### Director - NMR Laboratory Molecular Medicine Research Centre University of Toronto

The NMR Laboratory of the Molecular Medicine Research Centre at the University of Toronto invites applications for a position of a non-tenure track senior research associate. Applicants should have expertise in the interpretation of one- and two-dimensional NMR data sets of organic molecules as well as the application of two- and threedimensional NMR methods for the study of solution structural properties of peptides and proteins. The NMR Laboratory is equipped with Varian Unity+ 500 MHz and 300 MHz Am Bruker spectrometers. Candidates should be capable of interacting with research faculty and industry, instructing graduate students and postdoctoral fellows on the use and applications of NMR, recording and interpreting NMR data and assisting in structure calculations. Significant opportunities for collaborative interactions with faculty will exist. In addition, there will be minor technical responsibilities for the maintenance of the adjoining NMR facilities which include two 600 MHz and three 500 MHz spectrometers. The successful candidate will have a Ph.D. and post-doctoral training and demonstrated expertise in NMR spectroscopy. Salary to be commensurate with qualifications and experience. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women and men, members of visible minorities, aboriginal peoples and persons with disabilities. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Please submit curriculum vitae and names and addresses of three referees before May 1, 1997 to: Dr. Lewis E. Kay, **Department of Medical Genetics & Microbiol**ogy, #4388, Medical Sciences Building, University of Toronto, Toronto, Ontario M5S 1A8



#### **GLOBAL CAREER OPPORTUNITIES**

Forschungszentrum Jülich

Member of the Hermann von Helmholtz Association of German Research Centres

For our Institute of Biotechnology we are seeking a

### *PhD Student (m/f) with support for three years or a PostDoc (m/f) limited to two years*

The objective is the development of models and software tools to analyse microbial metabolic networks in metabolic engineering. Applications are invited from candidates who already have or expect to obtain a first class honours degree in applied mathematics, engineering science, informatics or related disciplines. Experience is expected in the description and analysis of dynamic biological systems as well as in software engineering (object-oriented methods).

The Research Centre Jülich would like to increase the number of women employed and therefore especially encourages qualified women to apply. Applications from disabled persons with appropriate qualifications are welcomed.

Applications including a curriculum vitae with the names and addresses of two referees should be submitted by April 30 1997 to

Forschungszentrum Jülich GmbH Institut für Biotechnologie Herrn Prof. C. Wandrey D-52425 Jülich, Germany

#### Novo Nordisk Biotech, Inc. Postdoctoral Position in Recombination

Novo Nordisk Biotech, Inc., located in Davis, California, is a wholly owned Research and Development subsidiary of Novo Nordisk A/S. Novo Nordisk Biotech, Inc. is focused on the cloning, expression, mutagenesis and characterization of industrial enzymes. Working in a vibrant research environment, the Postdoctoral researcher will conduct basic research in eukaryotic recombination, publish their results in scientific journals and participate in an intensive advanced scientific training program.

#### **Postdoctoral Position in Recombination**

The Company currently has a postdoctoral position available in its Department of Molecular Genomics, to study genetic recombination and repair. The model organism is filamentous fungi. The research will focus on the isolation and characterization of genes which are associated with the organism's recombination/ repair pathways. Applicants should be a recent Ph.D. graduate and have a strong background in molecular biology. Experience in fungi/yeast systems is a plus.

If you are interested in a challenging research position with the world's leading producer of industrial enzymes and meet the above criteria, please send your C.V. with a list of three references for consideration to : **Novo Nordisk** 

Biotech, Inc., Department of Human Resources, 1445 Drew Avenue, Davis, CA 95616. Please reference Job PD97. Email: pd97@nnbt.com

Novo Nordisk A/S is the world's largest producer of industrial enzymes, the world leader in the manufacture of Insulin and Diabetes Care Products, as well as other pharmaceuticals. Headquartered in Denmark, Novo Nordisk has operating facilities in over 50 countries worldwide.

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> In our Research Center located in the Paris area, we seek to recruit :

## Organic chemist Ph.D. with training in

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The successful candidate will participate in the search for new pharmacological leads in the frame of a Chemistry Team in direct interaction with Pharmacological Divisions.

Applications with curriculum vitae, photograph and handwritten letter are to be sent to **PUBLIVAL/3032** 27 Route des Gardes, 92190 MEUDON (FRANCE)



### POSTDOCTORAL POSITION IN YEAST MOLECULAR BIOLOGY

Kirin Brewery is a Japanese major beer company and is now diversifying its business fields such as pharmaceutical business, agribiobusiness and yeast-related fine chemical business. Central Laboratories for Key Technology of Kirin Brewery is developing the basic technology in the biotechnology area for above mentioned field. The Key-tech lab is immediately looking for a Postdoctoral Research Fellow for two year period for the Contribution of Basic Research for production technology of recombinant protein using nonconventional yeast (Candida utilis and Candida boidinii). High expression systems have been established, so the next project is high secretion system which will require basic research for secretion machinery. We expect a postdoctoral fellow to join this project. The successful candidate for this fellowship position has a background for biotechnology, especially molecular biology. Native speaker of English is preferable. Annual salary for 30 years old is about \$50,000. Housing is available at reasonable rents. For applications for this position, please send Curriculum Vitae, reprints, a statement of scientific interests and letters of recommendation to: Dr. Katsumi Nakamura, Central Laboratories for Key Technology, Kirin Brewery Co., Ltd., Fukuura 1-13-5, Kanazawa-ku, Yokohama 236, Japan.

IDEXX, a leader in the development of advanced biotechnology-based detection systems for animal health and food and environmental applications, currently has an opportunity for a:

## **Research** Scientist

We currently have a position available in the area of Protein and/or Peptide Chemistry. In this challenging role, you will lead the new product development process. The ideal candidate will have experience in one or more of the following:

#### Immunoassay Development Peptide-based Immunoassays Hapten Immunoassays

A Ph.D. in Biochemistry or related discipline and 2+ years of relevant experience and ability to work in a team environment is a must.

Please send a resume to: IDEXX Laboratories, Inc., Human Resources, Code LC-RS, One IDEXX Drive, Westbrook, ME 04092. We are an EOE M/F/V/D.



## Associate Director Project Management

Athena Neurosciences, Inc., headquartered in South San Francisco, is a fast-paced, biotechnology-based, pharmaceutical company committed to the discovery & development of new products to diagnose and treat diseases of the central nervous system. We are seeking a wellorganized professional with a technical background to provide project management support for 4-5 development projects.

Working closely with the Project Management Supervisor, you will identify critical path & personnel issues; resolve issues to provide for accelerated movement of drugs through all stages of the development pipeline; provide inter-project planning to support resource allocation, thus avoiding material backorders; and ensure projects stay on development timelines. The position requires a MA/MS and 4-5 years' project management/planning experience or a Ph.D. and 3 years' direct experience; demonstrated ability to think through risk benefit analyses for various aspects of the projects; and excellent interpersonal, problem-solving, organizational and written/verbal communication skills. Must be able to challenge functional groups without upsetting balance.

Athena offers an innovative & exciting professional, scientific environment in addition to competitive salaries and benefits. Please send resume to: Athena Neurosciences, Inc., Human Resources, (Attn: Job# SC0321-AD), 800 Gateway Blvd., South San Francisco, CA 94060. EOE



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#### POSITIONS OPEN

#### POSTDOCTORAL POSITION

Available immediately to investigate the *in vivo* modulation of protein kinase CK2 by polyamines. Studies will incorporate molecular, cellular and transgenic approaches to evaluate the cell cycle dependent effects of the interac tion between polyamines and CK2 on CK2 enzyme activ-ity and substrate phosphorylation, CK2 subcellular localization, and tumorigencity. Recent Ph.D. with demonstrated experience in molecular biology and an interest in signal transduction is preferred. Reply to: Susan K. Gilmour, Ph.D.

POSTDOCTORAL POSITION Opening in its Postdoctoral Fellowship Program in the Laboratory of **Rebecca J. Morris, Ph.D. Dr. Morris** is investigating the stem cell model of cellular replacement to normal cutaneous epithelium and in hyperplasia, neo-plasia and aging. Approaches include isolation and characterization of clonogenic keratinocytes and a novel strategy for lineage mapping using transgenic mice. A back-ground in molecular biology is essential. A recent graduate with an interest in cutaneous epithelial cell biology is preferred. Reply to Rebecca J. Morris, Ph.D. RESEARCH SCIENTIST POSITION

Position available equivalent to the level of an ASSIS-TANT PROFESSOR to study human ovarian carcinogenesis and molecular basis of drug resistance in ovarian cancer models. Applicants should have a strong back-ground in molecular biology and biochemistry. Reply to Michael B. Dabrow, D.O.

Interested applicants are requested to send a curricu-lum vitae, statement of research interests and accomplishments, and three letters of reference to the attention of the appropriate investigagor as listed above. c/o Lan-kenau Medical Research Center, 100 Lancaster Ave-nue, Wynnewood, PA 19096. FAX: 610-645-8299. Equal Opportunity Employer.

> POSTDOCTORAL POSITION—SETI INSTITUTE http://www.seit.org

A POSTDOCTORAL POSITION will be available at the SETI Institute in Mountain View, California begin-ning in the summer of 1997. The research will focus on innovative construction techniques for a one-square-kilometer radio telescope and new schemes for interference mitigation using an array of fully steerable antennas, massproduced from lightweight composite materials. The suc cessful applicant would be expected to conduct an initial design study of this concept. The study involves collaboration with a group directed by **Dr. Ron Ekers** at the ATNF headquarters in Epping, NSW Australia. Minimum requirements: Ph.D. in astronomy, physics,

or engineering, experience with construction of instru-mentation, facility with structural analysis codes, and an understanding of modern signal processing techniques. Starting salary will be approximately \$35,000 with good opportunity for career advancement. The SETI Institute has close ties to faculty members at

Stanford, University of California at Berkeley, and the University of Santa Clara. To apply, please submit a résumé, summary of past

experience, as well as a list of current interests and publications. Also arrange for three confidential letters of rec-ommendation to be sent to: Dr. Jill Tarter, 2035 Landings Drive, Mountain View, CA 94043, no later than April 30, 1997.

#### RESEARCH TRAINING IN CARDIOVASCULAR SCIENCE

Postdoctoral positions funded by NIH are available to study the cellular and molecular mechanisms involved in the regulation of the cardiovascular system. This is a multidisciplinary training program involving scientists with research expertise in biochemistry, pharmacology, physi-ology, microbiology, molecular biology and medicine. Research topics include neural mechanisms, vascular biology, signal transduction, metabolism, and protein regulation. The successful candidates may receive training in cardiology and pulmonary research or in basic biomedical research with scientists who are using the latest technology to explore the mechanisms of cardiovascular disease. Qualified Ph.D. or M.D. candidates should send a letter of interest and curriculum vitae to: Dr. Vernon S. Bishop, Department of Physiology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-7756.

Award of the annual stipend is limited to U.S. citizens and permanent residents. The University of Texas Health e Center at San Antonio is an Affirmative Action/Equal Opportunity Employer.

#### POSITIONS OPEN

#### BACTERIAL GENETICISTS

Two POSTDOCTORAL POSITIONS are available to study inducible mutagenic phenomena in bacterial model systems. Experience in prokaryotic genetics/ molecular biology required. Please write to: M. Zafri Humayun, Ph.D., Professor of Microbiology and Molecular Genetics, UMDNJ-New Jersey Medical School, MSB F607, 185 South Orange Avenue, Newark, NJ 07103-2714. Email: humayun@umdnj. edu. The UMDNJ is an Affirmative Action/Equal Opportunity Employer, Minorities/Females/Disabled/Veterans, and a member of the University Health System of New Jersey.

#### SYMPOSIUM

SECOND INTERNATIONAL MOUSE LUNG TUMORIGENESIS SYMPOSIUM THE OHIO STATE UNIVERSITY COMPREHENSIVE CANCER CENTER ARTHUR G. JAMES CANCER HOSPITAL AND RESEARCH INSTITUTE COLUMBUS, OHIO

June 18-20, 1997 Scientific Organizers:

Gary Stoner, Ph.D. Director of Basic Research Ohio State University Comprehensive Cancer Center Columbus, Ohio

and Alvin Malkinson, Ph.D. Professor, Department of Pharmacolog University of Colorado School of Pharmacy Denver, Colorado

This meeting will summarize current information in the field of mouse lung tumorigeneses and its relationship to human lung cancer. Topics and invited speakers include: Etiology (Nesnow, Stoner, Witschi), Genetics (Ander-son, Dragani, Gould), Molecular Alterations (Belinsky, Forkert, Malkinson, Ruch, Sabourin, You), Chemo-prevention (Castonguay, Lubert, Moody, Stoner, Wattenberg, Yang). A poster session will be included.

Please write for information about registration, abstract preparation, and lodging to: John L. Wilson, Ph.D., Ohio State University Comprehensive Cancer Center, 941 Chatham Lane, Suite 315, Columbus, OH 43221.

#### GRANTS

#### RESEARCH INQUIRIES INVITED

The Smokeless Tobacco Research Council, Inc. invites inquiries regarding grant applications.

The Council sponsors independent research into ques-tions of smokeless tobacco and health. Research support is through a program of grants-in-aid.

Grant applications are evaluated by the Scientific Advi-sory Board to the Council and will be judged solely on the basis of scientific merit and relevance.

Deadlines for submission of grant applications are June 30, 1997 for January 1, 1998 funding and December 31, 1997 for July 1, 1998 funding. Address inquiries or requests for applications to:

The Smokeless Tobacco Research Council, Inc. 420 Lexington Avenue, New York, NY 10170 Telephone: 212-697-3485 FAX: 212-986-8631 Email: strc@mindspring.com

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<sup>1</sup>JOURNAL OF IMMUNOLOGICAL METHODS. vol. 187: 1-7, (1995), "A Rapid Non-Selective Method to Generate Quadromas by Microelectrofusion": Y. Cao, T. Vinayagamoorthy, A.A. Noujaim, M.R. Suresh.

<sup>2</sup>MOLECULAR BIOTECHNOLOGY, vol. 3: 181-189 (1995). "Rapid Optimization of Electroporation Conditions for Plant Cells, Protoplasts, and Pollen". Saunders J.A. et al

<sup>3</sup>ANALYTICAL BIOCHEMISTRY, vol. 208; 1-9 (1993). "Preparation of Nuclear Transplant Embryos by Electroporation": Robl. J.M. et al.



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## **Monospecific Polyclonals**

Our monospecific polyclonal service is ideal for researchers who have the whole protein but need a highly selective response to it. The specificity of monoclonals is available at a fraction of the time and a fraction of the cost.

Here is how it works. The researcher provides Research Genetics with the whole protein which is then injected into two rabbits. The protein is then calculated as a collection of ninety-six peptides and synthesized onto our peptide paper. The sera from the two rabbits is used to probe the membrane to determine which peptides of the ninety-six give the strongest response. This antigenic peptide, so designed by the rabbit's own immune response, is resynthesized as a linear peptide, conjugated to KLH, and then reinjected into the same animals. Finally, the sera is affinity purified by the linear peptide.

The result is that the researcher receives antisera raised against the native protein, but purified against the peptide. The problems encountered using whole protein for antibody production may be eliminated by careful selection of the peptides bound to the membrane. In short, monoclonal specificity for \$3,500.

 Research Genetics, Inc.

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