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709

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by Peter Gwynne

Entrepreneurialism continues to set the agenda for European life science and life scientists. A surge of start-ups, particularly in biotechnology, is more than compensating for job reductions caused by recent mergers among large pharmaceutical companies. According to European Life Science 98, a report by consulting company Ernst & Young, the continent has more than 1,000 entrepreneurial life science companies, over 60 of which have their shares traded in Europe or North America. For job-seeking life scientists at all levels that means more opportunities than existed a decade ago.

Start-up biotechnology companies across Europe are opening up opportunities for life scientists at all levels of training.

Germany leads the way. In 1998, about 250 new biotechnology companies were formed there. Over the past three years, the sector has grown at a rate of about 100 percent per year.

What accounts for the burst of corporate creation? Most significant is the increasing availability of venture capital. Attracted by an easing of regulations in several European nations, European and American investors have rushed to finance biotechnology start-ups. In addition, academic science departments throughout the continent have put aside their traditional suspicion of industry to collaborate with the private sector on research projects. Such collaborations often include clinically oriented M.D.-Ph.D's working with patients in hospitals. In addition, professors are encouraging science students to learn about economics and business.

Surprisingly, perhaps, the rash of recent mergers in the pharmaceutical industry has also given life scientists new opportunities. Many are using their severance pay to start their own companies. Employment has, in fact, become remarkably volatile. Few scientists now can expect to join a company in their late 20s and stay on until retirement age. Increasing numbers of European life scientists with experience in the United States are moving back to senior positions in Europe. And several European companies no longer expect their Ph.D's to have postdoctoral experience.

In yet another change, the biotechnology and pharmaceu-

tical industries now offer intriguing research projects to go along with their superior equipment and facilities. Those perks have made industry such a popular option that the best and the brightest among European life scientists face difficult competition to land industrial jobs.

Graduates seeking positions in European academic institutions have even tougher tasks. Few tenured jobs are available, and those that open up are often filled by insiders who have already worked with the hiring professors.

HILDEN, Germany: With 800 employees, including 500 in Germany, QIAGEN sets the standard for Germany's biotechnology industry. Not only does it exceed the size of any European competitors, it also stands at the center of European entrepreneurialism. "QIAGEN serves as a benchmark for young biotech entrepreneurs who are establishing their companies," says Michael Collasius, manager of the company's instrumentation business unit. "Not many biotechnology companies will be formed in Germany without someone talking to QIAGEN."

The company supplies products for manual and automated extraction, purification, and manipulation of nucleic acids for use by molecular biologists in academe and the biotechnology and pharmaceutical industries. Its range of more than 250 products includes the BioRobot series of laboratory instruments, which automate extraction and enzymatic manipulation of nucleic acids.

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Opportunities exist for highly competent and committed Post Doctoral Scientists to join our experienced and motivated teams.

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An opportunity exists, within an established team, evaluating the effects of micronutrients, particularly antioxidants and fats, upon the immune system. The team is also concerned with developing an understanding of the impact of the ageing process on immune function. New understanding of nutrient/gene interactions from this research will be utilised in more applied projects within Unilever. A Post Doctoral Immunologist is required with experience of in-vivo and ex-vivo immunological assessments, particularly of cell mediated immune functions. Familiarity of cell culture, immunoassay and flow cytometry is essential. Experience of cell signalling pathway analysis, particularly of transcription factor activation and molecular biological mechanisms, would be advantageous.

Vacancy reference no. [WL292898002](#)



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Molecular Biologist, Biorecognition

We are looking for two enthusiastic and well motivated Molecular Biologists to join our BioRecognition Research Programme. It is essential that the candidates have a thorough background and hands-on experience in protein engineering and recombinant expression systems. Excellent communication skills to allow effective communication with the business and the international community are a must. The candidates will be required to develop new tools and understanding in the field of BioRecognition and facilitate the smooth transfer of knowledge and technology from academia into Unilever.

Applicants should have a PhD in Molecular Biology followed by at least two years of post doctoral experience. Experience in the field of antibody engineering and phage display technologies will be an advantage.

Vacancy reference no:
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Physical Chemist

The job involves management of a Plant Science project concerned with the crystallisation of lipids, especially tri-acylglycerols, in food systems. You will work as part of an expert team carrying out background and foreground research into the physical properties of lipids. Examples of techniques which might be applied include pulse NMR, DSC, x-ray diffraction and cold-stage microscopy. Development and application of phase behaviour and crystallisation theories to fats and lipids will form a major part of the job.

The ideal candidate will have a PhD in a Chemical or Physical Science and must have experience of crystallisation theories. An understanding of lipids, especially tri-acylglycerols would be desirable.

Vacancy reference no: **WL2994012**

Plant Biochemist/ Molecular Biologist

We are looking for a scientist to join a dynamic, multidisciplinary group engaged in creating plant raw materials with superior nutritional quality attributes. The successful applicant will be involved in the unraveling of relevant metabolic pathways and cloning of key genes, using the latest biochemistry and molecular biology techniques, coupled to modern bioinformatics tools. They will further be involved in the manipulation of selected crop plants (e.g. tomatoes), as well as the analysis of the resulting transformed plants. Candidates must have a PhD in Plant Biochemistry, Molecular Biology or related subject and ideally will have a few years of post doctoral experience within research. Proficiency in general protein biochemistry techniques combined with a good grasp of molecular biology techniques is essential. A working knowledge of unraveling complex metabolic pathways in plants, and/or metabolic engineering of plants, and/or bioinformatics expertise, would be advantageous.

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Cell & Molecular Biologists

We have vacancies for cell biologists and molecular biologists investigating the fundamental structure and function of the skin. Research topics include the molecular changes that occur with skin ageing, and the skin's biological response to environmental factors and nutrition. New understanding derived from this research will be utilised in the development of novel technologies and approaches to improve skin function and appearance. Candidates should have an appropriate PhD in an immunology or biochemical subject, molecular biology or cell biology.

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Unilever Research

The company expects a mixture of qualifications among its recruits. On the one hand, it seeks individuals with very broad scientific understanding. On the other, it aims to hire specialists in such areas as chromatography, genomics, and clinical diagnostics, with a particular understanding of applications. The company also seeks molecular biologists and chemists for its sales force, which is one of the largest in the molecular biology field. "We have a very technically oriented sales force, with a considerable number of Ph.D's," says Collasius. "This is a new way to apply your skills."

QIAGEN takes an untraditional approach to its operation. For example, it pays little regard to postdoctoral fellowships. "I don't see this as being important for the entrepreneurial environment as in basic science," says Andreas Düsterhöft, manager of the genomics business unit. QIAGEN expects all its employees to have a sense for creating new products that address customers' needs. "We in the business units are all our own entrepreneurs," he adds. "QIAGEN's working environment is more informal than in most other companies. We are very internationally oriented, and we have very few hierarchy levels, which helps team spirit."

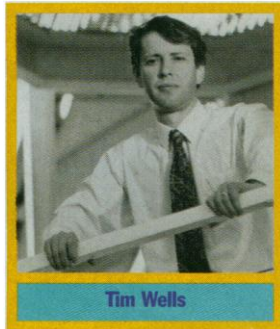
EBERSBERG, Germany: Eight years ago, two individuals launched MWG Biotech. Today, it has become a company with 100 employees that is about to be launched on the stock market.

MWG Biotech has built a large lab for biosynthesis, and has developed a unique purification method for high-quality oligonucleotides. The company produces instruments for lab automation. It also carries out custom DNA sequencing for corporate clients, and participates in Europe-wide ventures such as a genome sequencing program and the European Union's contribution to the international *Arabidopsis* project.

The company is growing and hiring at a rapid rate. "We plan to have about 200 people by the end of this year," says Jutta Huber, a molecular biology Ph.D. and MWG's marketing manager. "We also have subsidiaries in France and the United Kingdom. And we are starting to build a United States facility in Greensboro, North Carolina for work on oligosynthesis and sequencing." The company is hiring scientists experienced in those areas, and individuals for administration.

"Genome sequencing will be one of our foci this year," adds Huber. "To enlarge our genomics department we have just hired people from established labs in genome sequencing at all levels of qualifications, from technicians up. And we have hired experienced people for a new bioinformatics group."

GENEVA, Switzerland: A year ago, the Ares-Serono Group acquired the Geneva Biomedical Research Institute from GlaxoWellcome and renamed it the Serono Pharmaceutical Research Institute. The Institute, whose 150 employees include 55 to 60 who have Ph.D's, has changed its focus from pharmaceutical research to biotechnology.



Tim Wells

"As part of our integration into Serono, we've just recruited a chemistry department," says Tim Wells, the Institute's director. "We have two more slots to fill out of 20." Wells is also seeking experts in bioinformatics, or at least "Ph.D's in biochemistry and biology who understand experimental science and can rearrange software."

What advice does Wells give to candidates for jobs? "Gain experience working in an interdisciplinary set-

ting," he says. "We are looking for people who are flexible, have the ability to work in teams, and get on together." Wells regards the actual discipline in which recruits are trained as relatively unimportant. "Some of our most successful people in recent years have been plant molecular biologists," he explains.

He adds that the Institute offers significant research opportunities, with focused goals. "It's important that everything we do is of sufficient quality to be published," he says. The Institute's academic ambience is often boosted by the presence of academics working there on sabbatical. And several scientists move on from the Institute to positions in academic science.

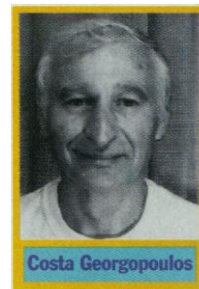


Hamish Scott

GENEVA, Switzerland: "It's very difficult to locate something with tenure," says Hamish Scott, a maître assistant (equivalent to assistant professor) in the University of Geneva Medical School's Division of Medical Genetics. "You're looking mainly at postdoctoral fellowships to start." Costa Georgopoulos, professor of medical biochemistry in the same medical school, agrees. "Academic jobs in life science are very limited here in Europe," he says. "Many students have realized that, after earning their

Ph.D's, they can go into economics, business, investment, or consulting. So they are going off to business school or graduate studies in economics, after which they can get good jobs."

Ph.D. training is often narrower and less thorough in Europe than in the United States, because, owing to fellowship time limits, students must frequently finish their Ph.D's in three or four years. Professors often worsen that situation, charges Georgopoulos, by placing their own students exclusively in tenured academic positions that open up in their departments. The University of Geneva, however, is trying to change the situation, by encouraging Ph.D. students to take courses beyond their own specialties, so that they can become more competitive.



Costa Georgopoulos

The prospects for academic positions in Europe aren't entirely bleak. The European Molecular Biology Laboratory in Heidelberg, the Genetics and Cell Biology Institute in Strasbourg, the Pasteur Institute in Paris, Germany's Max Planck Institutes, and the UK's ancient universities of Oxford and Cambridge all have critical masses of researchers and the necessary supporting infrastructure, says Georgopoulos. Individuals trained in certain disciplines, notably bioinformatics and genomics, "are incredibly sought after by academia as well as industry," adds Scott.

However, students seeking academic positions have to apply in untraditional ways. "You don't talk so much about academic areas as about skills," explains Scott, who is hiring mostly at the postdoctoral level. "Skills in high-throughput analyses, genomic analyses, gene expression studies, and bioinformatics are highly relevant, given the current trends in academia. For example, people with good backgrounds in phylogenetics are being snapped up, as the algorithms are the same as for doing clustering in gene expression studies."

Beyond that, "it's difficult for a European to stand out from the crowd," says Scott, who is himself Australian. "However, anyone who is an anglophone is at an advantage." The reason: as the European Union plays a growing role in funding academic science, English is becoming even more the language of European science than in the past. ■



L'alliance ouvre les portes de la découverte

New scientific discoveries are based on innovation, sharing knowledge and synergy of skills. This philosophy is a priority for the Institut de Recherche Jouveinal/Parke-Davis, one of the European Pharmaceutical Research Centres of Parke-Davis located in the southern region of Paris. In our research centres, in Ann Arbor (USA), Cambridge (UK) and Fresnes (FR), scientists are working on a broad range of mechanistic approaches to discover and develop new drugs for important human diseases. By diversifying our agreements with academic and industrial partners, the research of Parke-Davis / Jouveinal paves the way for new fields of experimentation, explores new concepts and gives the definition of future therapeutic axis. We are currently strengthening our teams for an unprecedented program of investment in technology and human resources, particularly for our of Pharmacokinetics & Drug Metabolism Department.

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A group leader, with a PhD in analytical chemistry or biochemistry, ideally in bioanalysis using mass spectrometry, is required to head this group. This position would be suitable for a scientist who already has acquired extensive industrial experience in LC/MS/MS instrumentation and automated sample preparation using robotics. The ideal individual will be currently working in discovery support and will have hands on experience of LC/MS/MS analysis of cassette doses. The Bioanalytical Group is extremely well equipped and currently has PESCIX LC/MS and LC/MS/MS instruments and a Micromass LC/MS/MS. The Group Leader will be responsible for the optimal functioning of these instruments, assay development, planning and reporting of studies.

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Together, we can make the new scientific discoveries of tomorrow by contributing to therapeutic innovation.

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UNIVERSITY OF CAMBRIDGE

The BP Professorship of Petroleum Science

The Board of Electors to the BP Professorship of Petroleum Science invite applications for this newly established Professorship. British Petroleum Plc (BP) have made a benefaction to the University to support the formation of an interdisciplinary research institute to carry out fundamental research on multiphase flow in rocks and pipes involving collaboration with five Departments. The Departments are Earth Sciences (host department), Applied Mathematics and Theoretical Physics, Chemistry, Chemical Engineering, and Engineering. The Institute will be attached to the Department of Earth Sciences, and the Professorship will be assigned to that Department, as host department. The Professor will take a leading role in developing teaching and research in petroleum science in the Institute and collaborating Departments. The appointment will be subject to the Statutes and Ordinances of the University.

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Informal enquiries should be made to Professor E. Salje, Department of Earth Sciences, University of Cambridge, Downing Street, Cambridge, CB2 3EQ (tel. 01223 333481, e-mail es10002@esc.cam.ac.uk). Further information may be obtained from the Secretary General of the Faculties, General Board Division, University Offices, The Old Schools, Trinity Lane, Cambridge, CB2 1TT, to whom applications marked 'confidential' should be sent, together with the names of two referees by 31 March 1999.

The University follows an equal opportunities policy.



KAROLINSKA INSTITUTET

Department of Biosciences at Novum
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Postdoctoral research positions in molecular and cellular biology of steroid/thyroid hormone receptors

A couple of positions for work on the structure and function of steroid/thyroid hormone receptors as well as orphan receptors belonging to the same superfamily are available at the Center for Biotechnology, Novum, Karolinska Institutet. The project involves state-of-the-art biochemical, molecular biological, cell biological and gene targeting techniques to understand the structure and function of these transcription factors.

The Center for Biotechnology (CBT) is situated at the South Campus of the Karolinska Institutet, encompassing the Novum Research Center and Huddinge University Hospital. CBT has a staff of some 150 persons. Other research areas represented at CBT include molecular immunology and membrane biology. Novum Research Center also contains the Center for Nutrition and Toxicology as well as the Center for Structural Biochemistry (with facilities for X-ray crystallography, NMR-spectroscopy, EM and molecular modelling).

The positions as postdoctors/research associates are initially for two years with possibilities for extension for up to four years. Preference is given to applicants with experience in molecular biology. Adequate laboratory resources will be provided.


Applications should be sent to **Professor Jan-Åke Gustafsson, Karolinska Institutet, Department of Biosciences at Novum, S-141 57 Huddinge, Sweden, together with CV, relevant publications and two recommendations letters.**

Closing date: March 1, 1999

International Conference on Ageing Studies and Lifetime Extension of Materials

12 – 14th July 1999

St. Catherine's College, Oxford, UK

Organised By: AWE/Hunting BRAE 



Topics and themes

The meeting will address changes in the properties of materials in-service with time: methods of study, interpretation of data, theoretical modelling, lifetime prediction and extension.

A wide range of materials, including polymers, metals, glasses, ceramics, explosives, nuclear and structural materials, will be covered.

Session themes will include: observation and understanding of real time and accelerated ageing; experimental techniques; modelling and theoretical studies; lifetime prediction and validation; lifetime extension; material design for ageing.

This conference will bring together scientists and engineers from around the world who wish to understand material and system ageing processes and how they can be studied and predicted.

Invited speakers

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Dr. Bob Campion	Mats. Eng. Res. Lab.
Dr. Roger Clough	Sandia National Labs.
Dr. Ian Donald	AWE
Prof. Rod Ewing	University of Michigan
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Dr. Alan Turnbull	National Physical Lab.

Contributed papers and posters

Persons wishing to contribute either an oral or a poster presentation should send a one page abstract with a title, stating whether oral or poster, to the Organising Chairman at the address below. Abstract deadline: 31st March 1999.

For further information and registration forms contact:

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International Conference on Ageing Studies and Lifetime Extension of Materials
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Royal Institute of Technology in Stockholm

Professorial Chair in the Didactics of Engineering Education

The Royal Institute of Technology in Stockholm (KTH) is Sweden's largest technical university with almost 3,000 permanent staff and faculty, and more than 12,000 undergraduate and postgraduate students. KTH has undertaken an extensive project of altering its pedagogics, in order to modify today's teaching and graduation procedures towards greater emphasis on the "learning by understanding" process. In support of this development the KTH Board has decided to establish a new and tenurable (permanent) professorial chair in the Didactics of teaching Engineering Science, with the following description of teaching and research duties and qualifications for the new chair:

"This Chair is to comprise the didactics of teaching engineering science, with special emphasis on teaching and learning processes. The holder of this Chair should therefore possess a strong record of teaching of natural science or engineering. By virtue of his or her own research into didactics, as well as publishing and teaching efforts, our new Professor shall have demonstrated his/her abilities in didactics as a scientific subject area."

A new unit of Didactics of Engineering Sciences is now coming into being at KTH, and our new professor is to be *primus motor* in the process of developing this unit. The professorial assignment thus comprises fulfilling the long-time pedagogical goals of our technical university as well as supporting all KTH staff, both departmental heads, teachers and administrators, with pedagogical expertise. This requires top-rate abilities to consolidate a new academic branch and to support and co-operate with others. KTH also attaches great importance to the candidates' ability to lead and develop scientific work in the subject area.

Please send us an informal letter together with a brief CV and a statement of your own research and teaching interests. KTH will then reply in the near future with a request for more formal application materials. The new chair is to be filled during the spring of 1999.

Kindly include contact information for three persons who can provide letters of recommendation. Such letters will be solicited only after contact with the candidate. Send your letter to: **President of KTH, SE-100 44 Stockholm, Sweden, no later than 5 February 1999.**

Please refer to "position # 930-1259-98" in your reply. Further enquiries about the chair may be directed to President Anders Flodstroem, e-mail flodis@admin.kth.se, Vice President for Education Bo Wahlberg, e-mail bo@s3.kth.se, or Head of the Department, Professor Fredrik Setterwall, e-mail setter@ket.kth.se.



The Institute of Animal Pathology of the University of Berne, Switzerland

is seeking a

Head of the Centre of Fish and Wildlife Medicine

The appointment will be of the level "Oberassistent" (= tenure-track assistant professor position) or Associate Professor. A degree in veterinary medicine or biology and special training in fish or wildlife diseases is required. The tasks will involve

- Leadership and management of the section
- Establishing an extramurally funded research program
- Surveillance of fish and wildlife diseases and control of notifiable diseases
- Responsibility of a reference laboratory for the Government
- Teaching of veterinary students, graduate students, and fish inspectors

The salary is competitive and commensurate with experience and qualifications. Fluency in German and/or French would be preferred; excellent applicants, however, who do not speak these languages, will also be considered. Applications should be submitted by April 1, 1999. Please send a letter of application stating professional goals and research interests, a curriculum vitae, and the names of three referees to Prof. Dr. Maja M. Suter, Institut für Tierpathologie, Universität Bern, Länggass-Str. 122, CH-3012 Bern, Switzerland (Phone: 41-31-631 2395; Fax: 41 31 631 2635; e-mail: suter@itpa.unibe.ch).

Pediatric hematologist – bone marrow transplantation service

The position of a pediatrician specialized in bone marrow transplantation at University Hospital for Children and Adolescents, University Erlangen-Nuremberg will be provided primarily for 3 years (thereafter permanent position possible).

Candidates should be experienced in autologous and allogeneic bone marrow transplantation.

A placental blood bank is going to be instituted as well as the Wilhelm-Sander Therapeutic Division for high risk leukemia in children. Therefore an extensive cooperation with the research programme of "Expansion of ex-vivo CD34+CD38- hematopoietic stem cells from placental blood for therapy of high-risk leukemia in children" is urgently necessary.

Application should be sent before February 28, 1999 to Prof. Dr. W. Rascher, Klinik für Kinder und Jugendliche, Loschgstr. 15, D-91054 Erlangen. Phone ++49 91 31 - 85 33 112, Fax ++49 91 31 - 85 35 867, E-mail: Wolfgang.Rascher@kinder.med.uni-erlangen.de

Biologist – Hematopoietic stem cell biology

(Salary BAT IIa)

The position of a research assistant at the Wilhelm-Sander Therapeutic Division at University Hospital for Children and Adolescents in connection with the Department of Biology (Genetics), University Erlangen-Nuremberg will be provided primarily for 2 years (probably 5 years) to "expand ex-vivo CD34+CD38- hematopoietic stem cells from placental blood for therapy of high-risk leukemia in children". Candidates should be experienced in immunomagnetic methods of cell separation, primary cell culture, short and long-term assays for hematopoietic progenitor cells, and basic methods in molecular biology. Personal experience in the selection and culture of hematopoietic stem cells is of advantage.

Application should be sent before February 28, 1999 to Prof. Dr. W. Rascher, Klinik für Kinder und Jugendliche, Loschgstr. 15, D-91054 Erlangen. Phone ++49 91 31 - 85 33 112, Fax ++49 91 31 - 85 35 867, E-mail: Wolfgang.Rascher@kinder.med.uni-erlangen.de

Friedrich-Alexander-Universität Erlangen-Nürnberg



Postdoctoral positions

Growth Factor Regulation of Angiogenesis and Lymphangiogenesis

Kari Alitalo, M.D., Ph.D.
Research Professor of the Finnish Academy of Sciences
Molecular/Cancer Biology Laboratory
Haartman Institute, University of Helsinki
POB 21 (Haartmaninkatu 3), 00014 Helsinki, FINLAND
Fax 358-9-1912 6448, E-mail: Kari.Alitalo@Helsinki.FI
<http://www.haartman.helsinki.fi/hi/res/alitalo/alitalo.html>

Applications should include CV and list of publications plus two letters of reference.

Free University of Berlin/ Freie Universität Berlin Germany

Faculty Position in Biochemistry Veterinary Faculty

Full Professor at C 4-level (permanent)

Responsibilities:

Full scale teaching of biochemistry to veterinary students (in German language). Research cooperation within framework of ongoing programmes (see www1.vetmed.fu-berlin.de) of veterinary faculty.

Requirements:

"Habilitation" in Biochemistry or equivalent qualification Experience in teaching biochemistry.

The faculty is seeking candidates with a strong research profile in at least one of the following subjects: Immunology, Molecular Biology, Molecular Parasitology.

Please submit applications by March 15, 1999 to:

Dean of Veterinary Faculty, Freie Universität Berlin, Oertzenweg 19b, 14163 Berlin, Germany.

Woman and handicapped are encouraged to apply.

CONFERENCE

5th INTERNATIONAL CONFERENCE ON FUNCTIONAL MAPPING OF THE HUMAN BRAIN

and Educational Brain Mapping Course

Düsseldorf, Germany,
June 22 – 26, 1999

Location: Congress Center
Düsseldorf

Chairman Local Organizing
Committee: R.J. Seitz

Department of Neurology,
Heinrich-Heine-University Düsseldorf,
Moorenstraße 5,

D-40225 Düsseldorf, Germany,

Tel.: +49/211/81-18974,

FAX: +49/211/81-18485

E-mail: HBM99@neurologie.uni-duesseldorf.de

<http://www.uni-duesseldorf.de/HBM99/>

Phased Innovation Awards for Technology Development

Applications are solicited for the development of:

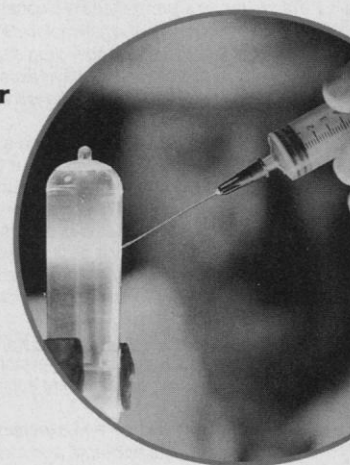
Innovative Technologies for the Molecular Analysis of Cancer

The program features:

- Rapid review of applications
- Expedited transition of successful technology research to an expanded development phase
- Flexible budget levels

Technologies of interest include those that are suitable for *in vitro*, *in situ*, or *in vivo* (e.g. imaging) analysis of:

- Alterations and instabilities in genomic DNA
- Expression of genes and gene products
- Cellular localization, post-translational modification, and function of proteins
- Major signal transduction networks involved in cancer



For complete information on this new program: Visit our Web site or call us at 301/496-1550

www.nih.gov/grants/guide/pa-files/PA-98-067.html

Small businesses are encouraged to consider a parallel announcement at: www.nih.gov/grants/guide/pa-files/PA-98-066.html

EUROPEAN COURSES & TRAINING



Universität Heidelberg European Molecular Biology Laboratory

International Master's Programme 'Molecular and Cellular Biology'

The Heidelberg University in collaboration with the European Molecular Biology Laboratory (EMBL) offers an international Master's Programme in Molecular and Cellular Biology (MCB) starting in October 1999. The programme aims at students holding a first degree in Biology, Biochemistry, Biotechnology, Chemistry or Medicine (e.g. Bachelor's degree or equivalent of the German 'Vor-Diplom'). The complete programme lasts two years with a further eight months spent on the Master's Thesis. Qualified students may continue their study towards a doctoral degree (approximately 3 years).

The teaching programme comprises topics in

- Molecular Biology
gene expression, developmental biology, microbiology, molecular basis of disease
- Biochemistry
enzymology, cell metabolism, biophysical chemistry, biotechnology, bioinformatics
- Cell Biology
immunology, neurobiology, molecular histology

Courses will be taught in English and comprise lectures accompanied by tutorials, small group seminars and practicals. In addition, language courses in German and English are offered.

For further information and application forms please visit our internet site at: <http://www.uni-heidelberg.de/institute/fak14/mcb.masters>, or contact: Cordula Harter, PhD; Programme Coordinator, International Master's MCB Programme, BZH Universität Heidelberg, Im Neuenheimer Feld 328, D-69120 Heidelberg, Tel.: +49-6221-54 4180, Fax: +49-6221-544366, E-mail: mcb.masters@urz.uni-heidelberg.de
Deadline for submission of applications is April 15, 1999.



The Jackson Laboratory is one of the world's foremost centers for mammalian genetics research. Located in Bar Harbor, Maine, the lab is adjacent to Acadia National Park. Mountains, oceans, forest, lakes, and trails are all within walking distance. If you love high tech challenges but you're looking for a more natural environment, this could be the opportunity you've been searching for.

Database Informatics: Biologists

Professional positions are available in the expanding Bioinformatics Programs at The Jackson Laboratory working with the Mouse Genome Database and Tumor Biology Database. Successful candidates will be primarily responsible for data acquisition and analysis, evaluating and annotating data to be incorporated into the databases, integrating information from disparate sources, and interacting with research laboratories to facilitate electronic data contributions. In addition, they will participate in database and interface design work through input into database content and display concepts. Applicants should have experience with molecular biology or mammalian systems and be versed in genomic, cellular to tumor biology. Other desirable attributes include writing/communication skills and experience using computers. Ph.D. degree in Life Sciences required.

Qualified candidates should send resume to: Human Resources, The Jackson Laboratory, 600 Main St, Bar Harbor, ME 04609 Fax 207-288-6106 email: jobs@jax.org

The Jackson Laboratory is an EOE/AA Employer.

<http://www.jax.org>

Cancer Genomics & Drug Discovery

Cold Spring Harbor, New York

Tularik Inc. is a privately-held biopharmaceutical company dedicated to the discovery and development of novel small molecule drugs that act through the regulation of gene expression. Tularik has initiated a cancer drug discovery program incorporating leading-edge genomics technologies. We currently have excellent opportunities for two dedicated researchers to join our expanding R&D team in the following roles:

Scientist • We are seeking a highly motivated and creative Scientist to play a fundamental role in the growth of our Genomics Division. The successful candidate will lead a research team dedicated to the development of state-of-the-art DNA microarray technologies for gene and drug discovery application. The position requires a Ph.D. in molecular biology or related field, at least 2 years of postdoctoral experience, a demonstrated record of scientific accomplishments, and the ability to work interactively with multidisciplinary scientists to fully exploit these technologies. Tularik Genomics Scientists work closely with the Cold Spring Harbor Laboratory in New York to enhance interactions between these two groups. (Position Code: DC)

Postdoctoral Fellow • We have an exciting postdoctoral research opportunity for a recent Ph.D. graduate to develop DNA microarray technologies which will facilitate gene discovery and drug development applications. (Position Code: CP)

Tularik offers productive and experienced leadership, employee stock options, a competitive salary and benefits package, and a collaborative and stimulating research environment that recognizes achievement. For immediate consideration, please forward your resume with position code to:

Tularik Inc., HR Dept.,
Position Code: _____
Three Technology Drive
Suite 200
East Setauket, NY 11733
Fax: (516) 689-1489
email: resume@tularik.com

equal
opportunity
employer



Tularik

www.tularik.com

Creating Drugs That Regulate Genes

Albert Einstein College of Medicine Comprehensive Cancer Center Postdoctoral Fellowships

Applications of high-throughput microarray technologies developed at the Einstein Cancer Center. Focus is on the impact of chemotherapeutics (agents that act at the level of microtubules and antimetabolites) on gene expression in normal and malignant tissues in order to identify new elements that are determinants of sensitivity and resistance to antineoplastics. (Laboratories of Drs. Susan Horwitz and David Goldman.)

Molecular genetics of carrier-mediated folate and antifolate transport with a focus on structure-function and regulation. These studies are pursued within the context of a larger exploration of the mechanisms of anticancer drug actions and resistance. Parallel studies are exploring the role of folate transporters in mouse development by gene targeting approaches. (Laboratory of Dr. David Goldman.)

Fellows participate in all activities of the Cancer Center's drug-development program and utilize all of the Center's core laboratory facilities. A strong background in molecular biology and related informatics and nucleic acid technologies is required. Stipends start at \$30,000/yr. Contact: **Dr. I. David Goldman, Comprehensive Cancer Center, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. Fax: (718) 430-8550, e-mail: igoldman@aecom.yu.edu. EOE.**

DGI BioTECHNOLOGIES

DGI BioTechnologies, L.L.C. is a New Jersey company focused on the establishment of promising new drug assay platforms and discovering novel small molecule leads for license to pharmaceutical and biotechnology companies. Active research programs involve the design and construction of novel genes and proteins and obtaining structure-function data on drug targets and drug leads. We seek candidates for the following positions:

ASSAY AND SCREENING TECHNOLOGIES

Director (Ph.D.) Candidate must be able to assemble and direct a group of scientists responsible for high throughput screening of novel therapeutic entities. Extensive experience in development of quantitative receptor binding assays and managing robotics equipment and large combinatorial-based chemical libraries required. Knowledge of relational databases and molecular pharmacology desired. Must be capable of crafting assay strategies, designing and executing protocols for high throughput screening and communicating results to users and other managers.

Scientists (BS/MS) Individuals responsible for developing and performing receptor binding assays and operation of automated equipment for high throughput screening. Experience with computers and relational databases a plus.

MOLECULAR BIOLOGY TECHNOLOGIES

Director (Ph.D.) Candidate must have proven record and ability to direct and manage scientists in the area of molecular biology. Previous experience with phage display technologies and applications in molecular immunology and pharmacology is an advantage. Individual will work on projects that apply gene display libraries to structure-function relationships of selected receptors. Must be able to implement current and novel molecular biological approaches to studies of protein interactions and protein structure-function. Experience with modeling protein structure and pharmacophores useful.

Scientist (Ph.D./MS/BS) Individuals with demonstrated abilities in molecular biology desired. Expertise in phage display or protein expression technologies or experience in receptor-ligand interactions required.

PROTEIN PURIFICATION

Scientist (MS/BS) Experienced protein purification's specialists required for protein/peptide chromatography (FPLC, HPLC, BioCAD), BIACORE analysis and protein characterization by SDS-PAGE and ELISA. Experience with single-chain antibodies or protein folding a plus.



BIO TECHNOLOGIES, L.L.C.

Interested applicants are invited to send resume (please indicate position of interest) including salary requirements and references to:
DGI Biotechnologies, P.O. Box 424
Edison, NJ 08818-0424

EOE M/F/D/V

Weill Medical College of Cornell University Director of Research Development

As part of a significant expansion of its research activities, Weill Medical College of Cornell University (Medical College) in New York City has created the position of Director of Research Development. The position reports to the Senior Associate Dean for Research. The Director will be responsible for identifying granting agencies and funding sources; initiating multidisciplinary grant proposals and taking the lead in the formation of teams; mentoring junior faculty; assisting in implementing the strategic plan for research; and providing administrative coordination of center grants. Candidates must possess a MD or Ph.D.; have academic credentials that would qualify for an Associate Professor or Professor appointment within the Medical College; have a successful track record in program development and implementation; demonstrated grant writing skills; a history of successful mentoring; excellent leadership skills; and the ability to relate to diverse people and institutions. The position offers a competitive salary and excellent fringe benefit package.

Applicants should send their CV's in confidence to **Alexander, Wollman, & Stark, 101 West Ave., Suite 305, Jenkintown, PA 19046.**

EEO/AA/M/F/D/V



Health Canada

Health Protection Branch, Laboratory Centre for Disease Control, Bureau of Microbiology

Winnipeg, Manitoba Canada

Eligibility lists may be used to staff similar positions including lower level and shorter term duration.

The Bureau of Microbiology, housed in the new Federal Laboratories in Winnipeg, Manitoba is the Canadian Federal Government's national laboratory responsible for work with human pathogens requiring biocontainment Levels 2, 3 and 4. Expert diagnostic and reference laboratory services for bacterial, viral and prion infectious agents are provided to public health laboratories across Canada. We also deliver the laboratory component of national surveillance programs and disease outbreak investigations, and carry out applied research to improve the diagnosis, prevention, and control of bacterial, viral, and prion diseases. The scientific expertise we are seeking for our state-of-the-art facilities in Winnipeg will help the Bureau to address emerging disease issues through a network of partners including governments (national and international), public health organizations, universities, and industry.

We are looking for experts to participate in scientific and technical work in support of blood safety and the public health interest. Professional staff are needed to supervise and deliver laboratory reference services, to carry out applied biological and biochemical research, and to critically evaluate new technologies. Applications are being solicited to fill positions as follows:

Research Scientists

Salary Range: \$37,036 to \$92,942 (under review)

VIRAL DIAGNOSTICS:

Bloodborne Pathogens and Hepatitis — 4 positions (similar)

HOST GENETICS AND PRION DISEASES:

Pathogenesis and Experimental Models — 1 position; Biochemistry and In Vitro Diagnostics — 1 position

Biologists

Salary Range: \$61,073 to \$70,527

HOST GENETICS AND PRION DISEASES - SECTION HEADS: 3 POSITIONS

Genetics and Molecular Epidemiology; Pathogenesis and Experimental Models; Biochemistry and In Vitro Diagnostics.

All positions require proficiency in the English language. Medical examinations and secret level security clearances are required. For positions in Host Genetics and Prion Diseases, a willingness to work in a Level 3 laboratory is required.

If you are interested in this challenge and would like information on the position requirements and to apply on-line, please visit our website at www.psc-cfp.gc.ca/jobs.htm prior to **March 12, 1999**.

As an equal opportunity employer, Health Canada is committed to achieving a skilled workforce reflective of the Canadian people. We also encourage members of the following designated groups to not only apply but to self-identify: women (especially in non-traditional groups), visible minorities, aboriginal peoples and persons with disabilities.

We thank all those who apply and advise that only those selected for further consideration will be contacted. Preference will be given to Canadian citizens.

We are committed to Employment Equity.

Vous pouvez obtenir ces renseignements en français.



Public Service Commission
of Canada

Commission de la fonction publique
du Canada

Canada

NeoRx develops innovative pharmaceuticals to meet critical unmet needs in patients with cancer and cardiovascular inflammatory disease.

Immunologist

We are currently seeking an individual to join a multi-disciplinary project team involved in exploring novel mechanisms of chemokine biology. The primary responsibilities of this challenging position are to: provide in vitro and in vivo support in immunology including animal models of human diseases; perform assays to assess cytokine levels, B and T cell function, host immune response, calcium flux, cytotoxicity, and flow cytometry; as well as to help organize and compile scientific documents for communication with collaborators, clinical investigators, and publication in scientific journals.

The successful candidate should have a Ph.D., D.V.M. or M.D., along with experience in hypothesis-based research in immunology or immunopathology involving T cell biology, cytokine receptor biology, and animal models of inflammatory and autoimmune diseases.

Interested candidates are invited to forward their resume with a cover letter in strict confidence to: **Denise Lucero, NeoRx Corporation, 410 W. Harrison Street, Seattle, WA 98119.** An Equal Opportunity Employer

NEORX

WE'VE GOT CAREERS



With a new state-of-the-art facility in Research Triangle Park, NC Covance Biotechnology Services provides the biotechnology and pharmaceutical industry with world-class process development and cGMP manufacturing for recombinant products. Join us as we put our clients' products and your career onto the fast-track. We are currently recruiting for the following key positions:

■ PROGRAM MANAGER, BUSINESS DEVELOPMENT

In this position, you will manage client programs including all aspects of project schedules, communication, reviewing timelines, initiating change orders, and ensuring appropriate assignment of duties. A Master's or Ph.D. degree in a life science field, Engineering or Business is preferred.

Please send resume to: **Covance Biotechnology Services, Director—Human Resources, Job Code: N-108, P.O. Box 13865, Research Triangle Park, NC 27709-3865; FAX: (919) 468-9070; Email: joe.mcmahon@covance.com** Only those selected for further consideration will be contacted. PRINCIPALS ONLY. Covance is an equal opportunity employer.

COVANCE

THE DEVELOPMENT SERVICES COMPANY

Shaping Solutions

Visit us on the Web at: www.covance.com

Faculty Position in Bioinformatics with Emphasis on Protein Structure and Function

Mount Sinai School of Medicine prides itself on the strides that it makes in research. We owe our successes to the union of true talent and remarkable resources. Applications are invited for a tenure-track faculty position at an academic rank commensurate with the candidate's qualifications. The successful candidate will have research interests in bioinformatics, preferably with a focus on using whole genome analysis and genomic data for application to questions of protein structure and function. The necessary financial support for the initiation of a strong research program will be provided.

Mount
Sinai

The position will be held in the Department of Physiology and Biophysics, which houses the rapidly expanding Structural Biology Program. The Structural Biology Program is currently comprised of crystallography and NMR groups, and is highly interactive throughout the institution. Mount Sinai School of Medicine, under the leadership of a new Dean, is in the process of a major expansion of its research programs. We encourage applicants who desire an environment that fosters interaction with a diverse group of scientists.

For consideration, please send C.V., a description of research interests and goals, and three letters of reference to: **Dr. Lawrence Shapiro, Structural Biology Program, Department of Physiology and Biophysics, Mount Sinai School of Medicine, One Gustave L. Levy Place, Box 1667 New York, NY 10029-6574; Fax: 212-849-2456; E-mail: shapiro@anguilia.physbio.mssm.edu** Visit our website at: www.careermosaic.com/mountsinai We are an equal opportunity employer fostering diversity in the workplace.

Mount Sinai School of Medicine

The Dana-Farber Cancer Institute, a teaching affiliate of the Harvard Medical School, specializes in cancer research and pediatric and adult patient care. We are currently conducting a search for the following position:

Assistant Professor of Neurobiology

On the occasion of its 50th anniversary, the Dana-Farber Cancer Institute has launched a new program in neuroscience. Together with the Department of Neurobiology at Harvard Medical School, the Dana-Farber Cancer Institute now seeks well-qualified applicants for a tenure-track position at the Assistant or Associate Professor level. Candidates are expected to direct innovative and independent research on fundamental problems in neuroscience and to participate in the teaching activities of the Department of Neurobiology. Developmental neurobiology and signal transduction within the nervous system are two areas of focus for the search. However, applicants with expertise in other areas of neurobiology will be considered. The position offers significant scientific resources in a stimulating environment. An attractive start-up support package is provided which includes laboratory space in the new Smith Research Building of the Dana-Farber Cancer Institute.

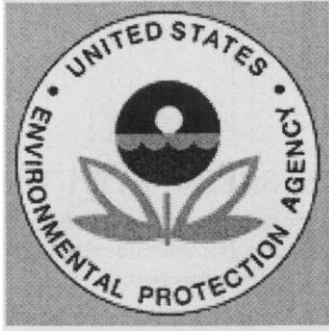
Applicants who have completed the Ph.D., M.D./Ph.D. or M.D. degrees as well as post doctoral training, should submit curriculum vitae, bibliography, a brief statement of research interests and arrange for three letters of recommendation to be sent to:

Dr. Charles D. Stiles, Chair, Neuroscience Search Committee, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115, email: charles_stiles@dfci.harvard.edu. All application materials should be received by April 30th, 1999.

The Dana-Farber Cancer Institute is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.



DANA-FARBER
CANCER INSTITUTE



NATIONAL EXPOSURE RESEARCH LABORATORY POST-DOCTORAL PROGRAM

The National Exposure Research Laboratory (NERL) of the United States Environmental Protection Agency is seeking candidates to fill as many as **24 federal, four-year post-doctoral research positions** during the coming year. NERL conducts research and development related to the exposure of people and ecosystems to a wide range of pollutants in the air, water, and soil, and to other environmental changes resulting from human activities at a wide range of scales including landscape alterations. This research encompasses areas such as environmental monitoring and characterization (physical, chemical, biological, and microbiological); computer modeling of the transport, transformation, and fate of pollutants in multiple media and at multiple scales; human and ecological exposure analysis (including the development of exposure biomarkers and bioindicators); remote sensing applications; and landscape ecology. NERL also field-tests, evaluates, and demonstrates the applications of these findings to environmental problems of national importance to EPA's regulatory and regional offices, other federal agencies, and state, local, and tribal governments. Among NERL's current priorities are exposure of humans to airborne particulate matter and emerging microbial pathogens (bacteria, protozoan parasites, and viruses) in water supplies; exposure of children to pesticides; multi-media, multi-pathway exposure modeling in humans; influence of landscape changes on surface water quality; development of integrated multimedia (atmospheric, terrestrial, and aquatic) transport and fate models; and assessment of the relative risk of exposure to a variety of stresses in regional ecosystems and large watersheds.

Because of the broad range of NERL's research mission, we are seeking candidates from a wide range of disciplinary backgrounds, including environmental science, chemistry, physics, biology, molecular biology, bacteriology, protozoology, virology, ecology, geography, applied mathematics and statistics, human health sciences, meteorology, computer science, and environmental or chemical engineering. The preferred candidate will have earned a Ph.D. in one of these areas within the last five years or will awarded it not later than August 31, 1999.

The NERL post-doctoral positions will be located in a division at either Research Triangle Park, North Carolina; Cincinnati, Ohio; Athens, Georgia; or Las Vegas, Nevada, depending on the particular disciplinary focus, and will be filled beginning **June 1999**. Successful applicants will begin work before October 1, 1999. These excepted service appointments will last for four years and offer a salary range of **\$39,960 – \$62,260**, commensurate with qualifications. The selected candidates will be eligible for a **full benefits package**, including relocation expenses, health insurance, life insurance, retirement, and vacation and sick leave benefits. **United States citizens are preferred and will be given first consideration for all positions.**

The filing deadline for these post-doctoral positions is **March 31, 1999**. If you are interested, please mail a **curriculum vitae, a letter of recommendation from your senior research advisor or other comparable official, and a letter indicating your research focus, desired position(s) and the geographic NERL location(s) you prefer** (see NERL Internet site below for specific positions) to Ms. Dorothy Carr, U.S. Environmental Protection Agency, Human Resources Management Division (MD-29), Research Triangle Park, NC 27711, Attn: NERL Post-Doctoral Program. If you are claiming veterans' preference, please include your **DD-214** with your application package.

If you send your application via Federal Express, address it to Ms. Dorothy Carr, U.S. Environmental Protection Agency, Human Resources Management Division (MD-29), 4201 Building, Suite 105, 79 Alexander Drive, Research Triangle Park, NC 27709, Attn: NERL Post-Doctoral Program. You may also submit your application via facsimile (fax) machine to (919) 541-2186; however, applications faxed from a U.S. government fax machine will not be accepted. Applications sent electronically via the Internet or mailed in U.S. government postage-paid envelopes will also **not** receive consideration. Your application materials must be received in the Human Resources Office or postmarked by **March 31, 1999**. Questions may be directed to Ms. Carr at (800) 433-9633. After all responses are reviewed, candidates will receive written notice of the status of their applications no later than **June 15, 1999**.

For specific job information on for the NERL post-doctoral program, you may access the National Exposure Research Laboratory's Internet site at <http://www.epa.gov/nerl/>

The U.S. EPA is an Equal Opportunity Employer.



Instructional Computing Coordinator/Manager Natural Sciences and Engineering

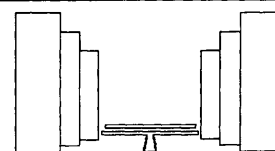
Swarthmore College, a small, highly selective liberal arts college located in suburban Philadelphia, seeks an Instructional Computing Coordinator/Manager to support faculty and student use of information technologies in the Division of Natural Sciences and Engineering.

Reporting to the Office of Computing and Communication Services, the specialist will share up-to-date knowledge about instructional hardware and software across the disciplines; will provide expertise with multimedia and instructional development tools; will offer training, documentation, and general computing support to faculty; and will work with faculty members to plan and implement curricular projects. The specialist will recommend appropriate hardware and software to meet needs related to instruction; and will collaborate in planning technology-rich labs and classrooms. May serve in a lead role in coordinating the efforts of other instructional computing staff.

Qualifications: Bachelor's degree (with extensive exposure to a natural science discipline, engineering, or computer science) and several years of relevant work experience are required. Advanced degree in a natural science discipline or engineering preferred. The successful candidate will demonstrate broad familiarity with the software and electronic resources required by the various natural science disciplines, engineering or computer science. Candidate must possess the ability to collaborate gracefully and imaginatively with teams of staff colleagues, faculty members, and students. Excellent technical skills are essential, including: thorough knowledge of Mac and PC hardware and software tools, ability to design and execute complex Web sites, knowledge of appropriate programming languages, a willingness and ability to master and support the commonly used software in the natural science and engineering disciplines. Strong oral and written communications skills are critical, as is the ability to meet deadlines and to maintain a sense of humor.

For immediate consideration, please send letter of interest and resume to: **Associate Director, Office of Human Resources, Swarthmore College, 500 College Avenue, Swarthmore, PA 19081.**

**Swarthmore College is an equal opportunity employer
committed to excellence through diversity.**



THE SALK INSTITUTE Postdoctoral Research Position in Neuroendocrinology/ Neuroscience

Available immediately, this research focuses on the CNS control of neuroendocrine functions in wild type and knockout rodents, and the influence exerted by alcohol on the regulation of hormone release and gene transcription/expression. The experiments are carried out in live rodents as well as in immortalized or transsected cells, and require at least a basic knowledge of small animal surgery and standard molecular techniques. The work is part of a large, multidisciplinary program which gives our students numerous opportunities to interact with and learn from scientists versed in all aspects of molecular neuroendocrinology. As the research is supported by an NIH training grant, candidates must be American citizens or permanent residents. Send CV, statement of research interests and names of three references to **Dr. C. Rivier, The Salk Institute, Peptide Biology Laboratory, 10010 N. Torrey Pines Road, La Jolla, CA 92037.**

www.salk.edu

The Salk Institute is an Equal Opportunity Employer



**St. Jude Children's
Research Hospital**
ALSAC • Danny Thomas, Founder

POSTDOCTORAL POSITION IN DEVELOPMENTAL AND MOLECULAR BIOLOGY

A postdoctoral position is available to work on fundamental questions regarding the role of homeobox genes during murine cellular differentiation (Development 121, 693 (1995), Development 121, 4045 (1995)). The work will involve the uses of modern techniques in molecular and developmental biology as well as the generation and analysis of knock-out and transgenic mice. The position is ideal for someone with a biological background, who has recently obtained a Ph.D. and / or M.D. with laboratory experience, and who would like to pursue training in developmental biology.

Interested individuals with a strong background in molecular biology or mouse embryology should send their CV and the names of three references to:

Dr. Guillermo Oliver
Department of Genetics
St. Jude Children's Research Hospital
332 North Lauderdale
Memphis, TN 38105 USA
www.stjude.org/departments/oliver.htm
Equal Opportunity Employer

CANCER EPIDEMIOLOGIST - #HM991

Michigan State University offers an exciting opportunity for a cancer epidemiologist in a new Department of Epidemiology in the College of Human Medicine and the university's Cancer Center. This is a tenure track position at the assistant or associate professor level. The successful candidate will be expected to develop independent and original research. We are especially interested in candidates with training and experience in molecular, genetic or nutritional epidemiology. Ideally, the successful candidate will have experience with intervention research focused upon cancer prevention. Opportunities include the Detroit area SEER database and the Cancer Center's breast cancer research program. We offer a unique system of community-based hospitals and health care providers and extramurally funded basic science research programs affiliated with the Cancer Center, the Department of Epidemiology and the College of Human Medicine. Teaching responsibilities include both medical students and graduate students in epidemiology. Candidates should have an established publication record, demonstrated research capabilities and teaching experience. Candidates should have a doctoral degree in epidemiology or in a related field with appropriate training and experience in epidemiology. Faculty level and salary will be commensurate with experience. Women and minorities are encouraged to apply. MSU is an Affirmative Action/Equal Opportunity Institution. Handicappers have the right to request and receive reasonable accommodations. The deadline for receipt of applications is May 1, 1999, but the position will be kept open until filled. Applicants should send (hard copy and e-mail to ziolkows@msu.edu), a CV, a description of research and teaching interests, and the names of four potential references to:

Nigel Paneth MD MPH and Marie Swanson PhD MPH
Co-chairs, Cancer Epidemiology Search Committee
Department of Epidemiology, Michigan State University
4660 S. Hagadorn Rd, Suite 600, East Lansing, MI 48823
Attn: Ms. Geri Ziolkowski



“Call for Papers”



First NASA and NCI Workshop on Sensors for Bio-Molecular Signatures

**June 2nd-4th, 1999
Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California**

Scientific Program Committee:

Leon Alkalai, JPL
David Baltimore, Caltech
Carol Dahl, NCI
Minoo Dastoor, NASA/JPL
Dan Goldin, NASA
Shawn Jones, DARPA
Richard Klausner, NCI
Steve Koonin, Caltech
Arnauld Nicogossian, NASA
Joan Vernikos, NASA

Points of Contact:

Dr. Leon Alkalai, JPL.
Ph: 818-354-7945
Leon.Aikalai@jpl.nasa.gov

Dr. Carol A. Dahl, NCI:
Ph: 301-496-1550
dahlc@osp.nci.nih.gov

Workshop Information:
[http://cism.jpl.nasa.gov/
events/nasa-nci.html](http://cism.jpl.nasa.gov/events/nasa-nci.html)

The National Aeronautics and Space Administration (NASA) and the National Cancer Institute (NCI) are interested in the development of high impact, long range technologies in support of their individual missions. Hence, NASA's Office of Life and Microgravity Sciences and Applications (Code U) and the NCI's Office of Technology and Industrial Relations are jointly sponsoring a workshop on Sensors for Bio-Molecular Signatures.

The goal of this workshop is to bring together technologies that are biologically inspired and will have a profound impact on the early detection and treatment of cancer on one hand, and the potential for revolutionizing space exploration by empowering human in space on the other hand. It is anticipated that innovations and discussions highlighted in this meeting will contribute to the definition of the second phase of the "Unconventional Innovations Program" newly announced by the NCI (<http://rcb.nci.nih.gov/uip.htm>), as well as the NASA Research Announcement in this area (http://peer1.idi.usra.edu/peer_review/nra/98_HEDS_04.html).

The NCI has specific interests in sensing the biomolecular signatures of cancer in the living body through non-intrusive approaches, with particular interest in technology platforms that will directly interface with targeted intervention strategies. NASA's priorities reflect the opportunity for a future of space exploration enabled by a symbiosis between the human explorer and a network of smart, survivable space sensor systems modeled upon the behaviors manifested by biological systems.

The conference attendance will be limited to facilitate participant interactions.

Major sessions and possible paper topics include but are not limited to:

Recognition of biomolecular signatures

- Aptamers
- Nucleic acid binding compounds and small molecule drugs
- Self-polymerizing complements

Micro- or nanosystems for sensing

- Nanorobotics/microexplorers
- Micro-lab on a chip
- Implantable sensors
- Polymeric structures-dendrimers
- Biomimetic-artificial nose, artificial immune system

Molecular Imaging

- Scanning carbon nanotubes
- Optical-infrared/visible/MWIR/LWIR
- Optical coherence tomography
- Fiber optic sensors/imagers

Signal Amplification

- Signal processing tools for enhancing signal to noise
- "Smart" image enhancing agents
- Quantum dots, fluorescent markers
- Bioluminescence

Information and data processing

- Innovative information processing technologies (sensor fusion)
- Understanding defect mechanisms
- Understanding self-organization and repair
- Models of biomolecular interactions

Abstract Submission Dates

- Abstract and summary due: **March 15, 1999**
- Author Notification of Acceptance for Presentation: **April 15, 1999**
- An updated electronic version of the abstract should be provided at the time of the workshop for publication on the web.

UNIVERSITY OF MINNESOTA

DEAN
COLLEGE OF VETERINARY MEDICINE

The College of Veterinary Medicine in the Academic Health Center at the University of Minnesota is seeking applications and nominations for the position of Dean. The ideal candidate will maintain a vision for the future of both academic and clinical/applied veterinary medicine. The vision will be implemented in an environment of shared governance and collegial interaction.

Qualifications include a D.V.M. or equivalent terminal degree; proven administrative, leadership, and management experience; and eligibility for an appointment at the **ASSOCIATE PROFESSOR** or **PROFESSOR** level. The successful applicant will have a record of and commitment to faculty and staff recruitment and development and documented interpersonal skills.

The deadline for the receipt of nominations is March 15, 1999. Review of applications will begin on April 15, 1999, but will be accepted until the position is filled. Qualified applicants should apply by sending a curriculum vitae and a letter of intent to include a statement of administrative goals and philosophy. Application materials can be sent to:

A. F. Michael, M.D. and D. A. Feeney, D.V.M.
Search Committee Co-Chairs
c/o Julie Tews
Academic Health Center Human Resources
University of Minnesota
Box 23 Mayo
420 Delaware Street S.E.
Minneapolis, MN 55455

The University of Minnesota is an Equal Opportunity Educator and Employer.

FACULTY POSITIONS
DEPARTMENT OF IMMUNOLOGY
THE LERNER RESEARCH INSTITUTE
Cleveland Clinic Foundation

The Department of Immunology is undergoing expansion and plans to fill several positions at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. Applicants will be assessed for their potential to establish and/or maintain an independent and vigorous research program. Preference will be given but not limited to scientists (Ph.D. and/or M.D.) with research interests that complement and enhance established programs in autoimmunity, transplantation, tumor immunology, innate immunity, and cell signaling. Areas of particular interest include T cell function/development, NK cell activity and signaling, and regulation and function in innate immunity/host defense. Generous start-up support and highly competitive salary and benefits are available and laboratory space will be provided in the recently completed Health Sciences Center. The Lerner Research Institute of the Cleveland Clinic Foundation, comprising more than 90 independent Investigators and over 600 employees, has a long standing commitment to excellence in research with an annual budget in excess of \$50 million.

Send curriculum vitae and names and addresses of three references to: **Dr. Thomas A. Hamilton, Chairman, Department of Immunology, NB3, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195.**

The Cleveland Clinic is an Equal Opportunity Employer.

Biology/human anatomy and physiology and genetics. Pending funding, two **TENURE-TRACK FACULTY POSITIONS** to begin August 1999. Both positions require Ph.D., the first in any area of human anatomy and physiology, the second in genetics. College-level teaching experience preferred as the primary mission of Utah Valley State College is teaching. First screen February 26, 1999. Submit letter of intent (including a statement of teaching philosophy, details of teaching experience, and research interests), curriculum vitae, transcripts showing degrees awarded, and a list of at least three references to: **Human Resources #184, Utah Valley State College, 800 West 1200 Street, Orem, UT 84058.** For more information: Telephone: 801-222-8207; website: www.uvsc.edu; e-mail: bartlena@uvsc.edu. *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITIONS
DEPARTMENT OF BIOCHEMISTRY AND
MOLECULAR BIOLOGY
Saint Louis University School of Medicine

The Edward A. Doisy Department of Biochemistry and Molecular Biology is seeking applications for tenure-track positions involving research and teaching at the **ASSISTANT PROFESSOR** level, although outstanding candidates at a more senior level will be considered. We anticipate making up to four appointments over the next two years. We seek applicants who will complement ongoing research in the areas of regulation of gene expression, cell signaling, physical biochemistry, and functional genomics.

Individuals studying mechanisms of biological processes at the molecular level using a combination of biochemical and modern molecular biological strategies are especially encouraged to apply. The successful candidate is expected to establish a strong extramurally funded research program. A potential for or demonstrated evidence of competing successfully for external funding will be an important criterion for selection. Excellent start-up funds and salary are available. Curriculum vitae, description of research plans, and at least three letters of recommendation should be sent to:

Search Committee
c/o William S. Sly, M.D., Chairman
Edward A. Doisy Department of Biochemistry
and Molecular Biology
Saint Louis University School of Medicine
1402 South Grand Boulevard
St. Louis, MO 63104-1028

Saint Louis University, a Catholic Jesuit Institution dedicated to education, research, and health care, is an Affirmative Action/Equal Opportunity Employer, and encourages nominations of and applications from women and minorities.

FACULTY POSITION IN
FREE RADICAL AND RADIATION BIOLOGY
THE UNIVERSITY OF IOWA
College of Medicine

The Free Radical and Radiation Biology Graduate Program in the Department of Radiology at the University of Iowa College of Medicine is seeking an outstanding free radical/radiation Biologist for a tenure-track faculty position at the **ASSOCIATE PROFESSOR** level. Applicants must have Doctoral and postdoctoral training, a record of graduate teaching, graduate advising, and a record of productive high-quality research. The successful candidate will have an active externally funded research program in free radical/radiation biology and be committed to excellence and innovation in teaching at the graduate level. The major teaching responsibilities will involve participation in a well-established graduate program in free radical and radiation biology. Preference will be given to candidates with experience in research related to the use of free radicals in the treatment of cancer. Molecular biology expertise is desirable. Potential applicants are invited to visit the website of the Radiation Research Laboratory (www.vh.org/WELCOME/UTHC/UHCHMedDepts/RadResearch/radhome.html) for more information about the department. Curriculum vitae, statement of research accomplishments and plans, and three letters of recommendation should be directed to: **Dr. Michael Vannier, Head, Department of Radiology, The University of Iowa College of Medicine, Iowa City, IA 52242.** The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are strongly encouraged to apply.

DIRECTOR OF SCIENCE PROGRAMS
DAVID AND LUCILLE PACKARD
FOUNDATION
Los Altos, California

The applicant should be a recognized leader in science with at least 10 years of experience in teaching, research, or policy (preferably all three), and with administrative and budgeting experience. Familiarity with environmental issues is preferred. The Director oversees the science program area, directs a small staff, and works with other Directors on broader issues. Duties include planning, implementation of approved programs, review of proposals, and liaison with advisory panels and with the Board's Science Committee. The total science grants budget in 1999 is \$67 million. For a fuller job description and other information about the Foundation, see website: www.packfound.org. Apply by February 28, 1999, to: **Carol Larson, Director of Programs, e-mail: k.andrews@packfound.org; FAX: 650-948-5793.**

FACULTY POSITION
VISION SCIENCE

A faculty position (**RANK OPEN**) at the University of Alabama at Birmingham (UAB) is available to scientists working in any area of vision research. Candidates must have a Doctoral degree, a productive research program, and, at the more senior levels, a record of extramurally funded research. Salary, space, and start-up funds are competitive with national levels.

UAB is a Carnegie Research I University that offers an excellent research and teaching environment. Vision research is an area of emphasis at UAB with 45 faculty from 11 departments constituting the Vision Science Research Center (VSRC), one of nine university-wide centers. The successful candidate will have access to all VSRC core resources including electronics, computer, machine shop, histology, confocal and multiphoton imaging, and shared ocular tissue facilities. Current VSRC members are active in such areas as neuroscience, cell and molecular biology, biochemistry, structural biology, and participate in various graduate training programs including cellular and molecular biology, neuroscience, and vision science. Research facilities and graduate training are supported, in part, by a long-running National Eye Institute (NEI) CORE grant and by NEI training grants.

Applicants should send a curriculum vitae with names of three references and a statement of research interests to: **Dr. Paul Gamlin, Chair, Faculty Search Committee, Department of Physiological Optics, 626 Worrell Building, University of Alabama at Birmingham, Birmingham, AL 35294-4390. Website: <http://spectrum.vsrc.uab.edu>.**

UAB is an Equal Opportunity Employer.

The University of Southern Maine invites nominations and applications for the position of **DEAN** of the School of Applied Science. The School comprises Applied Medical Sciences, Computer Science, Engineering and Technology Departments with both undergraduate and graduate programs. Substantial new funding from state and other resources affords the new Dean the opportunity to creatively develop and significantly impact the future growth and direction of the School of Applied Science. Qualifications: Required: earned Doctorate. Preferred: full-time teaching experience; demonstrated ability in budget and resource allocation; experience in curriculum development; achievement in research, scholarship, and service commensurate with an appointment as Professor in the School of Applied Science; and experience working in partnership with local industry. For complete information, visit website: www.usm.maine.edu/hrs/jobs. Send letter of application or nomination, a curriculum vitae, and the names of three references (contacted only by permission) to: **Dr. Julie R. Ellis, Chair, Search Committee, University of Southern Maine, 100 John Mitchell Center, Gorham, ME 04038.** USM seeks candidates with a strong commitment to diversity and who are supportive of a welcoming work/classroom environment. Review of applications and nominations will begin immediately and continue until the position is filled. *Equal Opportunity/Affirmative Action.*

TENURE-TRACK FACULTY POSITION
IN PHARMACEUTICS
UNIVERSITY OF MINNESOTA

The Department of Pharmaceutics in the College of Pharmacy of the University of Minnesota is seeking applicants at the tenure-track **ASSISTANT PROFESSOR** level. The successful candidate will be expected to develop an independent, externally funded research program and to participate in the graduate and professional curricula. Applicants are sought with research interests in molecular and cell biological approaches to the study of structure/function and regulation of membrane transporters that are involved in drug absorption, distribution, metabolism, and excretion. Applicants must have a Ph.D. or equivalent degree, and postdoctoral experience is desirable.

Applications should include a curriculum vitae, a concise description of past research and future research plans, and the names of three personal references. Send applications to: **Professor Ronald A. Siegel, Department of Pharmaceutics, University of Minnesota, 9-177 Weaver Densford Hall, 308 Harvard Street, Minneapolis, MN 55455.**



RESEARCH OPPORTUNITIES IN TOXICOLOGY

The Chemical Industry Institute of Toxicology (CIIT) is seeking Research Scientists with Ph.D. or D.V.M. degrees to join research programs that are developing scientific information to reduce uncertainties in risk-based decision making. The research programs support the health, environmental, and product integrity activities of the chemical industry. CIIT develops mechanistic information in four areas: Chemical Carcinogenesis, Respiratory Toxicology, Neurotoxicology, and Endocrine/Reproductive and Developmental Toxicology.

The CIIT research program is funded primarily through a partnership with the Chemical Manufacturers Association, which represents 190 leading chemical companies. While the majority of the funds are provided by the partnership, CIIT scientists are also expected to secure supplemental funding from government agencies, trade associations, and individual companies for research aligned with CIIT's mission. Current CIIT doctoral staff members have backgrounds in aerosol science, molecular and cellular biology, veterinary medicine, pharmacology, genetics, toxicology, pathology, biochemistry, chemistry, biomathematics, biostatistics, engineering, and neurotoxicology. The successful candidate will have excellent scientific skills, oral and written communication skills, and a strong commitment to participating as a member of multidisciplinary teams. In addition to establishing a quality research program, CIIT scientists are expected to participate in the mentoring of postdoctoral fellows. Preference will be given to individuals with a demonstrated record of securing research funds and conducting multi-year research projects. The following positions are available:

Director of the Chemical Carcinogenesis Program

The Institute seeks an individual with extensive experience investigating mechanisms of chemical carcinogenesis. The successful applicant should have an international reputation for their contributions to understanding the molecular mechanisms of carcinogenesis and have broad knowledge of the field of cancer biology. A demonstrated record of obtaining competitively awarded research funds and managing multiple investigator, multi-year projects is highly desirable. Strong consideration will be given to individuals who have existing research funding that is transferable. This position will provide leadership for a multi-investigator research program that spans from studies at the molecular and cellular level to whole animal investigations using transgenic and conventional animals onto the use of human material. The major focus is on understanding the mechanisms by which chemicals induce cancer and is supported with chemical industry funding. It is expected that complementary research will be conducted with additional funding secured from other sources. The individual should have well-developed skills for communicating with scientific peers, technical individuals trained in other fields, and industry managers and executives.

Reproductive and Developmental Toxicologist

The Institute seeks a reproductive/developmental toxicologist to participate in a major new project investigating the effects of chemicals on male reproductive development. A minimum of 2 years of postdoctoral experience in repro/developmental toxicology is required. Working experience in the conduct and evaluation of *in vivo* research studies of reproductive development in rodents, familiarity with the biological end points of antiandrogen action, and experience with molecular and cellular techniques involving steroid hormone action upon the developing fetus is preferred.

Quantitative Biochemical Toxicologist

The Institute seeks an individual with a minimum of 2 years of postdoctoral experience investigating the biochemical toxicity of chemicals with an emphasis on quantitative analyses. Working experience with biochemical analyses, *in vivo* and *in vitro* studies, metabolism and pharmacokinetics is required. Experience in physiologically based pharmacokinetic modeling and human health risk assessment is preferred.

Neurotoxicologist/Behavioral Toxicologist

The Institute seeks an individual with a minimum of 2 years of experience in neurotoxicology or behavioral toxicology to join an emerging program investigating chemical-induced neurotoxicity and to develop an independent research program while contributing to other Institute neurotoxicology research activities. Responsibilities include initiating and developing rodent behavioral studies targeted at the evaluation of industrial chemicals. Working experience with the application of operant techniques, acoustic startle, and other behavioral test methods in adult and developmental neurotoxicology is required. Knowledge of regulatory neurotoxicology is helpful.

Molecular/Cellular Respiratory Toxicologist

The Institute seeks a molecular/cellular toxicologist with a minimum of 5 years of experience in respiratory biology or toxicology to join a multidisciplinary team with research interests in pulmonary pathobiology of particles and fibers, aerosol science, and disposition of inhaled material. Working experience in the conduct and evaluation of both *in vitro* and *in vivo* studies investigating toxicity-induced respiratory disease and/or the effects of xenobiotics on the respiratory system and familiarity with a wide array of current molecular and cellular techniques is required.

Analytical Chemist

A minimum of 2 years of experience in coordinating analytical services for analysis of biological samples is required. Working experience and proficiency in GLP (or related compliance areas), mass spectrometry, HPLC, GC, ECD, and related analytical methodology is preferred. Strong management and proven team-building skills are required.

Comparative Pathologist

The Institute seeks a Board-certified (ACVP) veterinary pathologist with specialized research training and experience in toxicologic pathology or experimental oncology to join a multidisciplinary team investigating the mechanisms of chemical carcinogenesis. The successful applicant will be knowledgeable about the conduct of long-term rodent studies and have experience in the application of molecular and cellular pathology techniques. The individual should have well-developed skills for communication with scientific as well as non-technical audiences.

CIIT gives high priority to the communication of research findings in leading peer-reviewed journals, at professional meetings, and to other audiences. A majority of the research staff have adjunct faculty appointments at the three nearby major research universities: University of North Carolina at Chapel Hill, Duke University, and North Carolina State University and regularly interact with graduate students. The Institute has an internationally recognized postdoctoral program with over 180 past participants working in responsible positions around the world. The Research Triangle Park provides an intellectually stimulating environment with numerous opportunities for interactions with scientists at the nearby universities as well as the National Institutes of Environmental Health Science and the U.S. Environmental Protection Agency and other biomedical research organizations. The development of external collaborations is strongly encouraged. CIIT research projects are regularly reviewed by an external Science Advisory Committee of leading scientists for scientific excellence and by member company representatives for programmatic relevance.

CIIT offers an excellent salary and benefits package. Interested candidates should complete an application for employment that can be obtained from CIIT's web site at "ciit.org" or by calling CIIT's Job Line at (919) 558-1401. Please refer to the specific position in which you are interested. Applications and curriculum vitae should be directed to the **HR Manager, 6 Davis Drive, P.O. Box 12137, RTP, NC 27709-2137**. The deadline for applications is March 15, 1999. *CIIT is an Equal Employment Opportunity employer.*

POSITIONS OPEN

HEAD, DEPARTMENT OF PLANT BIOLOGY UNIVERSITY OF MINNESOTA

The University of Minnesota invites applications and nominations for the position of Head of the Department of Plant Biology in the Colleges of Biological Sciences and Agricultural, Food, and Environmental Sciences. The Department currently has 15 faculty with graduate students in several graduate programs and offers an undergraduate major. The successful candidate will have a Ph.D. (or foreign equivalent), a distinguished record of research, and will be encouraged to maintain an active research program as well as participate in educational activities. The Head will lead the department through a series of faculty searches over the next few years. For a more complete position description and information about the Department, please see the Department's website: <http://biosci.cbs.umn.edu/plantbio/pbio>. Applications will be reviewed beginning March 15, 1999. Applications will continue to be accepted and reviewed until the position has been filled. A statement of intent and curriculum vitae should be submitted to:

Ms. Julie Ulrich
Plant Biology Head Search Committee
College of Biological Sciences
University of Minnesota
123 Snyder Hall
1475 Gortner Avenue
St. Paul, MN 55108

The University of Minnesota is an Equal Opportunity Employer.

FACULTY POSITIONS THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER AT DALLAS Center for Immunology

The newly created Center for Immunology at The University of Texas Southwestern Medical Center at Dallas is seeking highly qualified faculty members with research interests in the area of immunology. Researchers in all areas of immunology are encouraged to apply; however, currently we are particularly interested in scientists utilizing animal models to investigate human disease processes.

The Center for Immunology will be recruiting six faculty positions during the next two to three years. Emphasis will be on identifying candidates at the **ASSISTANT PROFESSOR** level, although highly qualified individuals at all levels are urged to apply. Salary and start-up packages are highly competitive (for more information go to website: www.swmed.edu/home_pages/scholars/).

Please submit current curriculum vitae, two-page summary of proposed research programs and interests, and the names of three references to: **Dr. Edward Wakeland, Director, Center for Immunology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9093. E-mail: edward.wakeland@email.swmed.edu.** All applications must be received by March 15, 1999. *Equal Opportunity Employer.*

FACULTY POSITIONS IN REGULATORY BIOLOGY AND CELL SIGNALING

The Department of Integrative Biology and Pharmacology at the University of Texas Medical School in Houston has two tenure-track faculty openings for an expanding departmental focus in regulatory biology and cell signaling. Appointments may be at the **ASSISTANT PROFESSOR** level for candidates completing their postdoctoral training or at the **ASSOCIATE PROFESSOR** level for candidates with funded, independent research programs. Applicants using innovative approaches to address molecular, biochemical, and biophysical mechanisms that regulate cell behavior will be given preference, but a broad spectrum of research areas will be considered. Responsibilities include the development of a funded research program and participation in medical and graduate education. Attractive start-up packages and competitive salaries and benefits will be provided. Candidates should send a curriculum vitae, a description of future research plans, and at least three letters of reference to: **Dr. Peter Davies or Dr. Agnes Schonbrunn, Integrative Biology and Pharmacology, University of Texas Medical School, P.O. Box 20708, Houston, TX 77225.** Review of applications will begin immediately and will continue until the positions are filled. *The University of Texas is an Equal Opportunity Employer and encourages applications from women and minorities.*

POSITIONS OPEN

SCIENCE DIRECTOR/FACULTY POSITION MARINE SCIENCES

The School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, invites applications for the position of Science Director of the West Coast and Polar Regions Undersea Research Center (one-half-time) and tenure-track faculty position (one-half-time). This is a 12 months per year appointment. In conjunction with the Center Director, the Science Director is responsible for the direction and coordination of the undersea science program for the West Coast of the United States and both polar regions. Duties include effective communication with the research community, developing research initiatives, preparing announcements of opportunity, reports, proposals and newsletters, and assisting the Director in the operation of the center. Rank is open for the faculty portion. Research area is open but must be in some aspect of undersea research such as deep sea biology, fisheries, tectonics, seeps/vents, marine ecology, or polar marine science. Contribute to graduate student teaching and advising in area of expertise. Qualifications include Ph.D. in oceanography, fisheries, or other marine sciences and research experience with occupied submersibles, ROVs, AUVs, or observatories. Strong communication skills and ability to work positively with others essential. Send curriculum vitae, statement of research and teaching interests, and list of references with addresses, telephone numbers, and e-mail addresses to: **Dana Kapla, Global Undersea Research Unit, School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, Fairbanks, AK 99775-7220.** Review of applications will begin March 1, 1999, and continue until the position is filled. *The University of Alaska is an Affirmative Action/Equal Opportunity Employer and Educational Institution. In our efforts to diversify, we encourage applications from women and members of culturally diverse groups. Candidates must be eligible for employment under the Immigration Reform and Control Act of 1986.*

DIRECTOR OF IMMUNOLOGY CORE FACILITY. The Emory Vaccine Center, The Emory/Atlanta Center for AIDS Research, and the Yerkes Regional Primate Research Center of Emory University are seeking a Director for a new immunology core facility. This facility will develop and implement cutting-edge technologies to characterize immune responses in humans and nonhuman primates, and will provide a central component of the strong and growing programs in vaccine and microbial pathogenesis research at Emory University. The successful M.D., Ph.D., or M.D.-Ph.D. candidate will hold an appropriate academic appointment in the Emory University School of Medicine. Salary will be commensurate with experience. Interested applicants should send their curriculum vitae, statement of research interests, and the names of three references no later than March 15, 1999, to the address below: **Chair, Search Committee, Emory/Atlanta Center for AIDS Research, 1518 Clifton Road N.E., Atlanta, GA 30322.** *Emory University is an Equal Employment Opportunity/Affirmative Action Employer.*

RESEARCH NEUROPSYCHOLOGIST

The Department of Psychiatry and Behavioral Sciences is conducting a national search for a Ph.D. or M.D. Research Neuropsychologist at the **ASSISTANT TO FULL PROFESSOR** level, tenure-track, to assist established Investigators and perform original self-directed research in the area of cognitive neuropsychiatry. This position requires formal training in neuropsychology. Postdoctoral training in this area is also preferred. The successful applicant must have extensive knowledge of neurology, psychiatry, especially as they relate to structural and functional brain imaging technology, and clinical psychopharmacology. Applicants with an established record of obtaining extramural funding will be given preference but this is not required. The current areas of interest of the established Investigators includes structural and functional imaging in the neuro- and psychopharmacology of mood disorders, schizophrenia, and geriatrics. The Medical University of South Carolina is located in historic Charleston, South Carolina, a port city on the Atlantic Ocean with many beach and cultural amenities. Send curriculum vitae and three letters of reference to: **Ann Owens, Faculty Coordinator, Medical University of South Carolina, Department of Psychiatry Behavioral Sciences, Box 250861, 67 President Street, Charleston, SC 29425. E-mail: owensa@muscc.edu.**

POSITIONS OPEN

MOLECULAR NEUROSCIENCE UNIVERSITY OF WISCONSIN-MILWAUKEE

The Department of Biological Sciences at the University of Wisconsin-Milwaukee solicits applications for a tenure-track position in molecular neuroscience. We seek an **ASSISTANT PROFESSOR** with postdoctoral experience and strong training in molecular biology that will complement the research interests of current faculty in cellular/developmental neurobiology, behavioral neuroscience, or neuroendocrinology. We expect the successful candidate to establish an independent, extramurally funded research program and contribute to departmental teaching. Send a current curriculum vitae, a concise statement of research and teaching goals, and three letters of recommendation to:

**Chair, Molecular Neuroscience Search Committee
Department of Biological Sciences, Box 413
University of Wisconsin-Milwaukee
Milwaukee, WI 53201**

Applications must be received by February 19, 1999, for full consideration. The names of those applicants who have not requested that their identity be withheld and the names of all finalists will be released upon request. *The University of Wisconsin-Milwaukee is an Equal Opportunity/Affirmative Action Employer.*

DIRECTOR OF COLLECTIONS

The Paleontological Research Institution (PRI) is seeking an energetic and experienced individual to Head its Collections Department. PRI's collections are among the nation's largest and are now housed in new facilities. Responsibilities include collections management; supervision of full- and part-time staff, volunteers, and student workers; cultivation of donors; fundraising; working with amateur collectors; consulting on exhibit content; and strategic planning for the department. Advanced degree in relevant discipline and at least three to five years of collections experience required. Experience with Cenozoic of the western hemisphere and/or Paleozoic of the northeast United States a plus. PRI is seeking a dynamic, dedicated, self-motivated person to join a small but fast-moving organization during a time of rapid institutional growth. More information on PRI can be found at website: www.english.cornell.edu/pri. Send applications, including cover letter, curriculum vitae, and names and addresses of three references to: **Director, Paleontological Research Institution, 1259 Trumansburg Road, Ithaca, NY 14850 USA. Deadline April 1, 1999. Equal Opportunity Employer.**

YALE UNIVERSITY NUCLEAR THEORY

The Department of Physics at Yale, with partial support from the RIKEN-BNL Research Center, plans to appoint an **ASSISTANT PROFESSOR** in nuclear theory starting fall 1999. We are seeking a Theorist with a very strong background in the following broad areas, including, but not limited to, nuclear and statistical many-body theory, perturbative and nonperturbative QCD, and heavy ion collisions. The initial appointment will be for a period of five years. The successful candidate is also expected to teach undergraduate and graduate courses in physics. Applications, curriculum vitae, and letters of recommendation should be sent to: **Professor Charles Baltay, Department of Physics, Sloane Physics Laboratory, Yale University, New Haven, CT 06520** by March 1, 1999. *Yale University is an Affirmative Action/Equal Opportunity Employer and welcomes applications from qualified women and minority group members.*

The Department of Biological Sciences invites applications for a nine-month **INSTRUCTOR** position beginning 23 August 1999 (one academic year only). Master's in a biological science required (Ph.D. will be considered) with experience related to soil ecology. Other considerations include undergraduate teaching experience. Teaching will include introductory biology and upper-level courses including soil ecology and topics of expertise. Submit by 1 March 1999 a letter of interest addressing qualifications, curriculum vitae, statements of teaching interests, transcripts, and names of three references (include telephone numbers) to: **Dorothy Wrigley, Chair, Soil Ecology Search, Biological Sciences, Minnesota State University-Mankato, Mankato, MN 56002-8400 USA.** For further information, see website: www.mankato.msus.edu or e-mail: dorothy.wrigley@mankato.msus.edu. *Equal Opportunity Employer/Affirmative Action.*

**National Institutes of Health
National Institute of Allergy and Infectious Diseases
Confocal Microscopist**

The National Institute of Allergy and Infectious Diseases (NIAID) seeks a dynamic individual to run its newly established Advanced Microscopy/Imaging Facility. The individual will manage a centralized Leica TCS SP Scanning Confocal Microscope with 4 lasers and an imaging spectrophotometer. The facility will also include non-confocal microscopy image capture and analysis technologies. The facility manager must be able to interact closely with a diverse research staff within NIAID, provide microscopy services, consultations, training, and technical user support, as well as be able to select, operate, and maintain equipment. Preference will be given to qualified candidates with extensive microscopy/imaging experience and demonstrated expertise in confocal microscopy. Salary will depend upon experience and qualifications. Interested candidates must submit a curriculum vitae, bibliography, three letters of reference, and a statement of their vision of the components and mode of operation of a multiuser, advanced light microscope facility by **March 19, 1999**, to Dr. Jonathan Yewdell, Search Committee Chair, 4 Center Drive, MSC 440, Bethesda, MD 20892-0440.

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RESEARCH SCIENTIST

Managing our protein analytical group, you will support all protein/peptide development programs and provide leadership in methods development and validation to meet regulatory submission requirements at the IND/NDA stage. PhD in Analytical Chemistry or Biochemistry and 8+ years experience in protein pharmaceutical development with an emphasis on analytical support and at least 5 years supervisory/leadership experience required. Familiarity with protein analytical techniques and experience in IND/NDA CMC preparation desired. Project planning/management skills a plus.

Located in the San Francisco Biotech Bay, ALZA is pleased to provide an attractive compensation and benefits package. To learn more, please send resume, indicating Job#98-508, to ALZA Corporation, HR Dept./SCI199, 950 Page Mill Road, PO Box 10950, Palo Alto, CA 94303-0802; fax: (650) 494-5656; email: jobs@alza.com (ASCII files only). Job Hotline: (650) 494-5319. ALZA is proud to be an EOE.

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Government postdoctoral fellowships are available with the NIH, National Cancer Institute (NCI) in the Division of Basic Sciences.

**Developmental Signal Transduction
Ira O. Daar, Ph.D.**

Our studies in *Xenopus laevis* are aimed at understanding the signal transduction events elicited by a member of the Eph family of receptor tyrosine kinases and its ligand. Another project examines the regulation and function of Xmeis, a novel family of *Xenopus* homeodomain proteins whose murine homologues are involved in myeloid leukemogenesis. Applicants should have a strong background in molecular, cellular, or developmental biology. **Basic Research Laboratory, Building 567, Room 228, NCI-FCRDC, Frederick, MD 21702** E-mail: daar@ncifcrf.gov. See <http://rex.nci.nih.gov/RESEARCH/basic/brl/daar.htm>

**Growth Factor Signal Transduction
Diana Linnekin, Ph.D.**

Our work is directed towards delineating the biochemical and molecular mechanisms of action of stem cell factor, the ligand for the receptor tyrosine kinase c-Kit. We are interested in structure-function studies of c-Kit with a focus on dissecting signal transduction pathways mediating stem cell factor-induced survival, proliferation and differentiation of hematopoietic progenitor cells. Applicants should have a strong background in molecular and/or cellular biology. **Basic Research Laboratory, Bldg 567, Rm 226, NCI-FCRDC, Frederick, MD 21702. FAX: 301-846-6843** and E-mail: dlinnekin@mail.ncifcrf.gov. More information about this program can be found at <http://rex.nci.nih.gov/RESEARCH/basic/brl/linnekin.htm>

**Molecular Mechanisms in Development
Esta Sterneck, Ph.D.**

Studies focus on the role of C/EBP transcription factors in the regulation of cell growth and differentiation. Projects include the generation and analysis of conditional mouse mutants; analysis of the role of C/EBP genes in ovary, mammary gland and tumor development; identification and characterization of target genes. Candidates with expertise in molecular biology and/or cell biology are encouraged to apply. No postdoctoral experience required. **Basic Research Laboratory, Building 539, Room 219, NCI-FCRDC, Frederick, MD 21702; Phone: 301-846-1471; Fax: 301-846-5991; E-mail: sterneck@mail.ncifcrf.gov.**

**Signal Transduction of Non-Inhibitory Receptors
of Natural Killer Cells and Macrophages
Daniel W. McVicar, Ph.D.**

These studies are centered on understanding the biochemical and molecular mechanisms of recently described non-inhibitory members of families of otherwise inhibitory receptor families. These families include the Killer cell Inhibitory Receptors (KIR), the Immunoglobulin Like Transcripts (ILT), and the Leucocyte Inhibitory Receptors (LIR) of the human, as well as the Paired Ig-like Receptors (PIR) and Ly49 proteins of the mouse. **NCI-FCRDC, Building 560/Rm31-93, Frederick, MD 21702. Phone: (301) 846-5163; E-mail: mcvicar@nih.gov.**

**Signal Transduction/Membrane Traffic
Paul A. Randazzo, M.D., Ph.D.**

The laboratory focuses on regulation of membrane traffic by Arf family GTP-binding proteins and GTPase activating proteins that are targets of phosphoinositides and tyrosine kinases. Candidates with experience in cell biology, molecular biology and/or protein chemistry are encouraged to apply. **Laboratory of Cellular Oncology, NCI, Bldg. 37 Rm 5A-05, 37 Convent Dr. MSC 4255, Bethesda, MD 20892; Fax: (301) 496-5839; E-mail: randazzo@helix.nih.gov.**

The positions offer competitive postdoctoral stipends and an excellent work environment. For full consideration, please send a curriculum vitae, introductory letter containing a brief description of research experience and three letters of recommendation. Candidates should have less than five years post doctoral experience. NIH is an equal opportunity employer.

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**THE UNIVERSITY OF
ALABAMA AT BIRMINGHAM
DEAN, NATURAL SCIENCES
AND MATHEMATICS (NS&M)**

The University of Alabama at Birmingham (UAB) seeks applications and nominations for the Dean of the School of Natural Sciences and Mathematics. The school consists of doctoral degree granting departments of biology, chemistry, computer information science, mathematics, and physics. The school is a dynamic academic organization and provides an environment that encourages personal and professional development among its faculty, student attainment of academic and professional success, and strong partnerships with private and public sector organizations. It employs 83 faculty, and currently enrolls approximately 1064 undergraduate student majors and 150 students in graduate study. The school has undergone explosive growth in research capabilities in the past decade with extramural funding tripling in that time.

UAB is a comprehensive, urban university and medical center enrolling 16,000 students in 12 schools on its 75-block campus. UAB has grown rapidly in its 28 year history. It is a Carnegie Research I institution with active grants and contracts exceeding \$270 million and ranks 30th nationally in federal research and development funding.

Qualifications include proven administrative and leadership skills in higher education; the ability to articulate a vision for the future of a college of natural sciences and mathematics in a top-ranked research institution; and a demonstrated capacity to work effectively with faculty, staff, students and community leaders. The ability to develop and maintain effective fundraising strategies for the school and a proven track record of extramural funding development are essential. Qualifications must also include a terminal degree and distinguished academic credentials meriting appointment to the rank of Professor in the school. As the chief academic, administrative, and financial officer of the school, the Dean reports directly to the Provost.

Review of applications will begin February 28, 1999. Applications should include a letter of interest, current curriculum vitae and a list of references. Applications will be accepted until the position is filled. UAB is an equal opportunity employer. Address correspondence to:

**NS&M Dean's Search Committee
Office of the Provost
701 South 20th Street, AB 1019
Birmingham, AL 35294
mroser@uab.edu**

W E ' V E G O T C A R E E R S



Covance Biotechnology Services, Inc., in Research Triangle Park, North Carolina, provides the biotechnology and pharmaceutical industry with world-class Process Development and cGMP Manufacturing for recombinant products. These services are provided for preclinical through commercial production allowing our client companies to leverage their capital by tapping into our process development and cGMP manufacturing capabilities. Join us in North Carolina as we put our clients' products and your career onto the fast-track.

Our Process Development group supports our clients' requirements in the areas of cell culture and fermentation, purification, formulation and analytical methods development. This group is also responsible for small-scale (generally up to 100-Liter scale) cGMP manufacturing to meet our clients' requirements for toxicology and Phase I/II clinical trials. These positions offer an opportunity for significant interaction with the best research scientists from client companies as well as with the outstanding process scientists at Covance. We are currently recruiting for the following key positions:

■ **SENIOR SCIENTIST/SCIENTIST, CELL CULTURE PROCESS DEVELOPMENT**
In this position, you will be responsible for the development of cell culture processes (mammalian, hybridoma and insect cell) for the manufacture of biopharmaceuticals. These processes may be used internally by our group for Phase I/II clinical material cGMP production or transferred to our large-scale cGMP manufacturing facility. We are looking for candidates with hands-on experience in the areas of cell banking, adaptation to serum and protein-free medium, fed-batch and perfusion process development, operation of small and large bioreactors. Knowledge of relevant analytical techniques and a good understanding of cell biology and cell line development are also essential. You should have a Ph.D. (or equivalent experience) in Cell Biology, Microbiology, or Biochemical Engineering and 5+ years of relevant experience. **Job Code: SC-1101**

■ **RESEARCH ASSOCIATES, CELL CULTURE PROCESS DEVELOPMENT**
In this position, you will be responsible for day-to-day maintenance of ongoing cell culture processes for biopharmaceutical manufacture. You will work closely with the Senior Scientist/Scientist in the cell line adaptation, media development and fed-batch fermentation process development. You may also be assigned to our Phase I/II cGMP manufacturing activities. Good sterile technique is a must. BS or MS in Cell Biology or Microbiology or Biochemical Engineering with 1+ years of experience in a similar position is essential. **Job Code: SC-1102**

■ **RESEARCH ASSOCIATES, FERMENTATION PROCESS DEVELOPMENT**
In this position, you will be responsible for day-to-day maintenance of ongoing bacterial and yeast processes for biopharmaceutical manufacture. You will work closely with the Senior Scientist/Scientist on cell line screening, media development and fed-batch fermentation process development. You may also be assigned to our Phase I/II cGMP manufacturing activities. BS or MS in Cell Biology, Microbiology, or Biochemical Engineering with 1+ years of experience in a similar position is essential. **Job Code: SC-1103**

■ **SENIOR SCIENTISTS/SCIENTISTS, PURIFICATION DEVELOPMENT**
In these positions, you will develop processes for the recovery and purification of proteins from bacterial, yeast and mammalian recombinant sources. These processes will be used to isolate biopharmaceuticals for use in human clinical trials. A Ph.D. and 5 years of appropriate experience in Biochemistry or Protein Chemistry is required. A successful record of purification process development leading to the preparation of human clinical trial materials in an industrial setting will be considered a significant plus. **Job Code: SC-1104**

■ **RESEARCH ASSOCIATE, PURIFICATION DEVELOPMENT**
In this position, you will be responsible for monitoring the progress of purification processes developed for the manufacture of biopharmaceuticals. You should have at least 2 years of experience in protein purification and/or protein chemistry in a GLP environment and enjoy working in a fast-paced environment with highly motivated coworkers. **Job Code: SC-1105**

■ **SCIENTIST, FORMULATION DEVELOPMENT**
In this position, you will be responsible for the development of formulations and formulation processes for protein therapeutics. You should be knowledgeable in the field of biophysical chemistry and in techniques to achieve protein formulations with long-term stability. You also should have experience in developing formulations for lyophilization as well as lyophilization cycle development. Analytical experience should include methods for quantitation of protein degradation and characterization of degradation products. A Ph.D. (or equivalent experience) in Biochemistry or Protein Chemistry and 5+ years of relevant experience required. Relevant cGMP experience a significant plus. **Job Code: SC-1106**

■ **MANUFACTURING ASSOCIATES, FERMENTATION/CELL CULTURE/PURIFICATION**
In these positions, you will be responsible for the manufacture of cell culture and/or fermentation products including protein purification. A BS degree in a technical area (or equivalent job related experience) is required, along with 2+ years of hands-on experience in a cGMP environment, including experience with fermentors, bioreactors, centrifugation equipment, chromatographic and/or ultrafiltration systems. **Job Code: SC-1107**

Please send resume, indicating Job Code, to: **Covance Biotechnology Services, Inc., Director—Human Resources, P.O. Box 13865, Research Triangle Park, NC 27709-3865; FAX: (919) 468-9070; Email: joe.mcmahon@covance.com** Only those selected for further consideration will be contacted. **PRINCIPALS ONLY.** Covance is an equal opportunity employer.

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POSITIONS OPEN

FACULTY POSITION IN ENVIRONMENTAL PATHOGENIC MICROBIOLOGY

The Department of Botany and Microbiology at the University of Oklahoma invites applications for a tenure-track **ASSISTANT PROFESSOR** position in the general area of the physiology or genetics of environmentally important, new, or reemerging pathogens. Applicants should take a molecular approach to potential areas of interest such as the introduction, transport, and fate of pathogens in the environment, effect of altered environmental conditions on pathogens, or other microbiologically oriented public health issues. Teaching at the undergraduate and graduate level is expected. Applicants must possess a Doctorate degree in microbiology or related field. Postdoctoral experience required. The department has 20 faculty and cores of excellence in environmental biology in both botany and microbiology. Research and expertise that complements the department's strengths is preferable. Applicants should provide a curriculum vitae, statement of research interests, statement of teaching interests, and three letters of recommendation by 26 February 1999 to ensure full consideration, but the search will continue until a candidate is hired. Application materials should be sent to: **Microbiologist Search Committee, Department of Botany and Microbiology, University of Oklahoma, 770 Van Vleet Oval, Norman, OK 73019-6131**. Information on the department is on our website: <http://www.ou.edu/cas/botany-micro>. The University of Oklahoma is an Affirmative Action/Equal Opportunity Employer. Applications from women and underrepresented minorities are encouraged.

CHAIR, DEPARTMENT OF CELL BIOLOGY

Vanderbilt University Medical Center is searching for a Chair of the Department of Cell Biology. This is an exceptional opportunity to lead the continuing development of a vigorous and dynamic cell biology department. In addition to outstanding research credentials, candidates should be committed to sustaining excellence in the teaching mission of the department, recruiting and mentoring faculty, and assuring that the Department of Cell Biology continues to interact effectively with other departments and programs in the Medical Center. Candidates should be recognized leaders in the broad area of cell biology. Information on the Department of Cell Biology can be found on the World Wide Web at website: <http://www.mc.vanderbilt.edu/vumcdept/cellbio>.

Those interested in applying, please send a curriculum vitae to:

Dr. Michael R. Waterman, Chairman
Cell Biology Search Committee
Department of Biochemistry
Vanderbilt University School of Medicine
607 Light Hall
Nashville, TN 37232-0146
Telephone: 615-322-3318
FAX: 615-322-4349

Vanderbilt is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority candidates.

FACULTY POSITION PHYSIOLOGIST

The Basic Science Department of a growing professional college is hiring Instructors in the subject of physiology. Applicants must be knowledgeable in all aspects of physiology and be current and experienced in the classroom setting. Applicants must also possess an advanced graduate degree in physiology or related discipline. Qualified applicants should send résumés to: **The Dean of Instruction, Cleveland Chiropractic College, 6401 Rockhill Road, Kansas City, MO 64131**. Equal Opportunity Employer.

RESEARCH ASSISTANT PROFESSOR. Cardiology, Oregon Health Sciences University. Biomedical Scientist sought for lead role in NIH-funded cardiac molecular biology laboratory, focused on mechanisms of cardiac myocyte growth, tyrosine kinase signaling pathways, and murine transgenic lines. Required: Ph.D. and postdoctoral training in molecular/cellular biology, relevant experience, and publications. Send curriculum vitae and names and numbers of three references to: **R. E. Hersberger, M.D., Card-UHN-62, 3181 S.W. Sam Jackson Park Road, Portland, OR 97201**. FAX: 503-494-5049.

POSITIONS OPEN



YOUNGSTOWN STATE UNIVERSITY BIOLOGICAL SCIENCES

The Department of Biological Sciences, Youngstown State University, seeks applicants for three tenure-track **ASSISTANT PROFESSOR** positions beginning September 15, 1999. Ph.D. and postdoctoral experience required. Successful candidates must possess a strong commitment to teaching, develop a vigorous research program involving undergraduate and graduate students, and pursue extramural research funding.

Evolutionary biology/ecology: Preferred background in one or more of the following: ichthyology, conservation biology, wetland ecology, entomology. Will teach undergraduate courses in life sciences for majors and non-majors; upper-division and graduate courses based on applicant's area of interest.

Environmental microbiology: Will teach environmental studies, environmental microbiology, and general microbiology for graduate and undergraduate students.

Physiology and anatomy: Will teach undergraduate mammalian anatomy, and human anatomy and physiology. Research interest in neurobiology is preferred.

Interested individuals should send a letter of interest, curriculum vitae, transcripts, teaching and research statements, selected reprints, and three letters of reference by February 15, 1999, to: **Dr. Paul Peterson, Chairperson, Department of Biological Sciences, Youngstown State University, One University Plaza, Youngstown, OH 44555-3601**. Website: <http://www.as.ysu.edu/~biology>.

YSU is an Affirmative Action/Equal Opportunity Employer.

Biology. ASSISTANT PROFESSOR. The Department of Biology at Shippensburg University invites applications for a tenure-track position starting August 1999. The successful candidate will be required to have completed an earned Doctorate at the time of appointment. Teaching responsibilities will include developing two of the following courses: pathology, pathophysiology, neurobiology, and/or parasitology at the advanced undergraduate/graduate level, and participating in existing introductory biology courses for majors and non-majors. A strong commitment to teaching is required. During the on-campus interview, candidates will be required to demonstrate classroom teaching effectiveness and to present a seminar on their current research. Scholarly activity, preferably involving students, will be required in the area of the candidate's specialty. Applicants should send curriculum vitae, copies of transcripts (both graduate and undergraduate), a statement of teaching philosophy and research interests, plus three letters of reference to: **Dr. Penny Padgett, Chair of Search Committee, Department of Biology, Shippensburg University, 1871 Old Main Drive, Shippensburg, PA 17257-2299**. The deadline for receipt of materials is February 19, 1999. Shippensburg University is committed to Equal Employment Opportunity. Women, persons of color, veterans, and the disabled are encouraged to apply.

ENDOWED CHAIR in cardiovascular research. An Endowed Chair is available in the Division of Cardiology at the University of Louisville for an outstanding scientist (M.D. or Ph.D.) with a strong track record of academic accomplishments and the ability to develop an independent, NIH-funded program in basic and/or clinical cardiovascular research. A tenured Full Professor position will be associated with the Chair. Outstanding facilities and opportunities for collaboration with a strong multidisciplinary basic research group are available. Send curriculum vitae, letter of intent, and three references to: **Roberto Bolli, M.D., Division of Cardiology, University of Louisville, Louisville, KY 40292**. Affirmative Action/Equal Opportunity Employer.

Two **ASSISTANT PROFESSOR** positions are available at: **The University of Manitoba, Faculty of Medicine, Department of Biochemistry and Molecular Biology, 770 Bannatyne Avenue, Winnipeg, Manitoba R3E 0W3 Canada**. One for the Breast Cancer Research Group (Position ABH661) and one for the Division of Stroke and Vascular Disease (Position AFL965). The full advertisement for each position can be found on the Biochemistry home page, located at website: <http://www.umanitoba.ca/faculties/medicine/biochem>.

POSITIONS OPEN

FACULTY POSITION REEVE-IRVINE CENTER FOR NERVOUS SYSTEM REGENERATION RESEARCH University of California, Irvine

Applications are invited for a tenure-track faculty position at the **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** level in the area of nervous system regeneration research. This appointment will be made as part of the continuing development of the Reeve-Irvine Center. We are especially interested in candidates using cellular, molecular, or genetic approaches to spinal cord injury/regeneration research. The ability to develop and maintain an independently funded research program, and to work collaboratively with other Investigators, is essential. An excellent start-up package is available; departmental affiliation and teaching responsibilities will be determined based on the candidate's background. Send curriculum vitae, list of publications, a summary of research goals, and names and addresses of at least three individuals who can provide letters of recommendation to:

Reeve-Irvine Faculty Search
University of California College of Medicine
Irvine, CA 92697-1275

The University of California is an Equal Opportunity Employer, committed to excellence through diversity.

ASSISTANT PROFESSOR of plant pathology. University of Florida. Applications are invited for a 12-month tenure-track position with 70 percent teaching and 30 percent research responsibility. Teaching responsibilities include the teaching of courses such as turfgrass pathology, general plant pathology, and plant disease diagnosis; participation in undergraduate advising; supervision of graduate students; and teaching at the graduate level. Research will be in the area of turfgrass pathology, must be extramurally funded, and must include basic studies and testing of chemical and other disease control products. Ph.D. in plant pathology or related field is required. Candidates must have a strong commitment to a teaching and research career. They must be effective lecturers, able to use modern electronic teaching techniques, and must be dedicated teachers. Experience in working with turfgrass diseases is desirable but not essential. Applicants should submit a statement of teaching and research goals and interests, a curriculum vitae, graduate and undergraduate transcripts, list of publications, and three (3) letters of reference, no later than April 15, 1999. Starting date: July 1, 1999. Refer to position# 929230. Send inquiries to: **Dr. F. W. Zettler, Chair, Search Committee, Plant Pathology Department, P.O. Box 110680, University of Florida, Gainesville, FL 32611-0680**. Telephone: 352-392-3631; FAX: 352-392-6532; website: plantpath.ufl.edu; e-mail: fwz@gnv.ifas.ufl.edu.

The University of Florida is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

ASSISTANT PROFESSOR OF PHYSIOLOGY AND BIOPHYSICS

The Department of Physiology and Biophysics at the Albert Einstein College of Medicine invites applications for a tenure-track faculty appointment at the Assistant Professor level. Particularly welcome would be submissions from individuals with research programs in cell or systems physiology that would benefit from this department's strength in molecular biophysics. Applications from candidates with exceptional abilities in any area of biophysics or physiology will also be welcome. The major responsibility of successful candidates will be research supported by extramural sources; demonstrated productivity in research is therefore essential. Evidence of ability to interact productively with colleagues in the Department and throughout the College will be a significant factor in evaluating candidates. Research and supporting facilities within the Department and throughout the College are excellent and will be accessible to incoming faculty. In addition the College will provide an outstanding start-up package with competitive salary and fringe benefits. Replies, including curriculum vitae and names of at least three references, should be sent to: **Dr. Philip Aisen, Chairman, Search Committee, Department of Physiology and Biophysics, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461**. Equal Opportunity Employer.



NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources
ASSOCIATE DIRECTOR FOR BIOMEDICAL TECHNOLOGY

The National Center for Research Resources invites applications for the position of Associate Director for Biomedical Technology (ADBT), NCRR, NIH. The ADBT is responsible for directing the Biomedical Technology area and developing and implementing plans to enable NCRR to enhance the effectiveness of the Center's programs in biotechnologies, while providing scientific leadership in the planning, formulation, program review, development and evaluation of all activities that are encompassed by this area, all of which impact the conduct of biomedical research at the National level. The ADBT integrates the programs into the NIH agenda and establishes priorities for using these programs to achieve NIH's and NCRR's long-range objectives.

Applicants must have a Doctor of Medicine or a Ph.D. in one of the health sciences or biomedical engineering (or equivalent combination of experience and training) plus senior level medical/biomedical research experience that demonstrates the following **mandatory qualifications**: (1) Knowledge and ability to lead a scientific program of national and international scope involving bioengineering and biotechnology. This includes managing a large, multi-disciplinary biotechnology research program as it relates to biomedical/ biobehavioral research or research administration related to diseases, disorders or conditions. (2) Demonstrated ability to provide leadership and broad vision to a large extramural research program with extensive managerial and executive level responsibilities (i.e., training, research resources, strategic planning, budgeting, and human resource management), in a diverse organization. (3) Knowledge and experience with state-of-the-art instrumentation and technologies and their potential application to biomedical research, and a scientific stature sufficient to lead this important area and advise the Director and senior executive staff within and outside the Center on issues affecting the Biomedical Technology program. This is a permanent full-time position with a salary range of \$110,351 to \$125,900 per annum commensurate with qualifications. Physicians may be eligible for a Physician Comparability Allowance ranging from \$5,000 to \$20,000 per year. A recruitment bonus of up to 25 % of base pay may be available to a non-federal selectee for this position. A relocation bonus of up to 25% of base pay (subject to approval) may be available to a permanent Federal employee who must relocate to accept this position. A one year probationary period must be served by the individual selected if not currently or previously in the Senior Executive Service.

Send applications to Ms. Pathenia Wiggins, National Institutes of Health, National Center for Research Resources (NCRR), 9000 Rockville Pike, Building 31, Room 3B43, Bethesda, MD 20892. For application forms and a copy of the requirements contact Ms. Wiggins at NCRR on (301) 496-1524. Deadline for applications is **April 5**.

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.

- Applicants with access to Internet's Worldwide Web may browse the NIH Home Page to view the full text vacancy announcement at <http://helix.nih.gov:8001/jobs/>
 - OPM now requires five executive core qualifications be met by individuals being recommended for appointment to the SES. Information about these qualifications can be requested from the NCRR Personnel Office or found on the Web at: <http://www.opm.gov/ses/html.ecq4.htm>
 - Applicants may browse the NCRR Home Page at <http://www.ncrr.nih.gov>
 - Applicants may e-mail materials to patw@ncrr.nih.gov
- NIH is an Equal Opportunity Employer



The Harvard-Massachusetts Institute of Technology Division of Health Sciences and Technology (HST)

seeks candidates for tenure track faculty positions, junior and senior levels, starting in September 1999, which include teaching, research, and supervision of theses.

HST is a collaborative program established in 1970 between the Massachusetts Institute of Technology (MIT) and Harvard University and is now among the largest biomedical engineering and physician scientist training programs in the United States. HST's mission is to foster research and educational programs that integrate science, engineering, and medicine towards the solution of biomedical problems. Approximately 300 students are currently enrolled in the Division's programs that lead to the M.S., Ph.D., and/or M.D. degrees. MIT, Harvard Medical School, Harvard College, and the Harvard Teaching Hospitals are all well represented in the full HST faculty. Graduates of our programs have been highly successful in careers in both the academic and industrial sectors, with an emphasis on biomedical engineering, biomedical sciences, and medicine.

We seek candidates with backgrounds in interdisciplinary fields of biomedical engineering and/or the biomedical sciences and who have a particular interest in: biomedical imaging, tissue engineering, biomedical engineering, quantitative physiology, biological and medical informatics, experimental therapeutics, molecular medicine, human genetics, space medicine and medical instrumentation. We anticipate that the successful candidate will have a joint appointment with another department at MIT, Harvard Medical School or one of the teaching hospitals.

HST is strongly committed to diversity in its faculty as well as in its student body. We encourage applications from men and women of all demographic backgrounds. All candidates should reply to the address below, describing their professional interests and their goals in both teaching and research. Each application should include a curriculum vitae and the names and addresses of three or more individuals who will provide letters of recommendation. Please arrange to have such letters sent directly to the address below. Review of applications will begin January 15, 1999 and will continue until the positions are filled.

Send all applications to: **Professor Martha L. Gray, J.W. Kieckhefer Professor of Medical and Electrical Engineering, Co-Director, Harvard-MIT Division of Health Sciences & Technology, Massachusetts Institute of Technology, E25-519, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.**



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POSITIONS OPEN

MICROBIOLOGY AND IMMUNOLOGY TEXAS

The Department of Basic Sciences, University of Texas-Houston Health Science Center (UTHHSC), Dental Branch invites applications for tenure-track faculty positions at the **ASSISTANT/ASSOCIATE PROFESSOR** level. Applicants must have a Ph.D., teaching and research expertise in microbiology or immunology, and at least two years of postdoctoral training. Candidates are expected to have or to quickly establish a funded research program. The Department of Basic Sciences is an interdisciplinary group of approximately 25 faculty members with primary responsibility for instruction of dental students and Residents in biological sciences. The UTHHSC is located in a major Medical Center that provides excellent opportunities for collaboration. Additional information is available at [website: http://www.db.uth.tmc.edu](http://www.db.uth.tmc.edu).

Applicants should send a curriculum vitae, statement of teaching and research interests, and the names of three references to: **Dr. Jarvis Chan, Department of Basic Sciences, University of Texas Dental Branch, P.O. Box 20068, Houston, TX 77225**. The deadline for applications is March 15, 1999. *The University of Texas-Houston Health Science Center is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

TENURE-TRACK FACULTY POSITIONS

The Department of Pharmaceutical Sciences is seeking qualified candidates for full-time, tenure-track positions at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level beginning in the fall 1999. The department has 30 full-time faculty and 80 graduate students. These new positions will complement our rapidly growing research and teaching programs at Ph.D., Pharm.D., and Pharm.D.-Ph.D. levels. Applicants should have a Ph.D. in pharmacology or related biological sciences with a minimum of two years of postdoctoral experience. Successful applicants are expected to establish an independent and innovative research program. Review of applications will begin in February 1999 and will continue until the positions are filled. Please submit a letter of intent, curriculum vitae, statement of research and teaching objectives, and addresses of at least three references to: **Dr. K. Chul Kim, Chair, Faculty Search Committee, Department of Pharmaceutical Sciences, University of Maryland School of Pharmacy, 20 North Pine Street, Baltimore, MD 21201-1180**. For additional information about the Department, see our [website: http://www.pharmacy.ab.umd.edu/](http://www.pharmacy.ab.umd.edu/). *The University of Maryland is an Affirmative Action/Equal Opportunity/ADA Employer. Women and minorities are encouraged to apply.*

ASSISTANT PROFESSOR-LEVEL RESEARCH position in herpes simplex virus vaccine development and immunology. NIH-funded project investigating the immunology of a successful therapeutic vaccine against ocular HSV-1 recurrence in a rabbit model. Studies are aimed at determining and understanding the presumably mucosal therapeutic immune responses and enhancing the therapeutic vaccine efficacy. Strong background in immunology and/or vaccine development essential. Additional experience in viral immunology and mucosal immunity is highly desirable. Send curriculum vitae, names, addresses, and telephone numbers of three references to: **Dr. Steven L. Wechsler, Virology Research Laboratory, Davis Research Building, Room 5069, Cedars-Sinai Medical Center Research Institute affiliated with UCLA School of Medicine, 8700 Beverly Boulevard, Los Angeles, CA 90048-1869**. E-mail: wechsler@csmc.edu.

MOLECULAR CELL/DEVELOPMENTAL BIOLOGIST. Non-tenure-track, one-year position with possible renewal. Appointee will teach team-taught courses in biochemistry, developmental biology, and molecular and cell biology, teach one or more sections of an innovative, new interdisciplinary core course in the natural sciences, and supervise undergraduate research. Ph.D. required; postdoctoral experience required and teaching experience preferred. Submit letter of application, curriculum vitae, unofficial transcripts, and names, telephone numbers, and e-mail addresses of three or more references to: **James P. White, Dean of the School of Arts and Sciences, St. Bonaventure University, St. Bonaventure, NY 14778**. Review of applications will begin 1 March 1999. *Affirmative Action/Equal Employment Opportunity Employer.*

POSITIONS OPEN

GANNON UNIVERSITY

ASSISTANT PROFESSOR OF BIOLOGY

Gannon University, a Catholic institution located in Erie, Pennsylvania, announces a nine-month, tenure-track faculty position at the level of Assistant Professor of biology to begin August 25, 1999. The Biology Department is seeking an Aquatic Biologist whose teaching responsibilities will include invertebrate zoology, freshman biology courses, and courses in the candidate's area of interest. The successful candidate will be expected to direct undergraduate and perhaps graduate research. Required qualifications include earned Ph.D. in biological sciences, training and ability to teach courses associated with this position, as well as training and ability to direct student research. Teaching experience at the college level is preferred.

To apply send letter of application, curriculum vitae, and three letters of recommendation to: **Gannon University, Human Resources Department, 109 University Square, Erie, PA 16541-0001**. FAX: 814-871-7514; e-mail: hrdept@gannon.edu. Inquiries regarding this position may be directed to: **Professor David J. Gustafson, Chairperson of the Biology Department, e-mail: gustafso002@gannon.edu**. This position will remain open until filled. For more information regarding Gannon University visit our [website: www.gannon.edu](http://www.gannon.edu). *Gannon University is an Affirmative Action/Equal Opportunity Employer.*

CHAIR IN ECOLOGICAL/ ENVIRONMENTAL ECONOMICS

The University of Minnesota invites applications and nominations for the Interdisciplinary Fesler-Lampert Chair, an Endowed Chair to be filled in the field of ecological/environmental economics. Applicants should have (1) strong analytical skills in economics that facilitate the application of economic theory and models to significant problems in ecological/environmental economics, (2) a record of substantial research accomplishments reflected in publications in leading journals, (3) experience in and a commitment to incorporating ecological and conservation knowledge into a program of research and teaching that supports a wide range of undergraduate majors, graduate students, faculty, and professionals.

The University of Minnesota is a land-grant, research university with strengths in relevant fields such as ecology, economics, natural resources, business management, political science, and international development. The Chair is tenured but rank is open. Salary is competitive. The department(s) in which tenure is held and the teaching and other responsibilities will be negotiated with the successful candidate. Applications are invited immediately, but will be accepted until the position is filled. Applicants should send a curriculum vitae, a cover letter describing their research, teaching, and service interests, and the names of four references to: **Fesler-Lampert Search Committee, University of Minnesota Graduate School, 420 Johnston Hall, 101 Pleasant Street S.E., Minneapolis, MN 55455-0421**.

The University of Minnesota is an Equal Opportunity Educator and Employer.

ASSISTANT PROFESSOR BOTANIST/PHYCOLOGIST. Department of Biological Sciences, Murray State University. Full-time tenure-track position to begin August 1999. Qualifications: Ph.D. in an appropriate area of botany required, postdoctoral research preferred. Must be able to develop an extramurally funded research program in experimental phycology involving graduate and undergraduate students. Responsibilities: Teach courses in general botany, phycology, and upper-level courses in area of specialization. State-of-the-art research support facilities, including a glass house and mesocosm building available through the Center for Reservoir Research and the Hancock Biological Station. Application deadline: March 15, 1999. To apply: Submit curriculum vitae, statements of teaching experience/philosophy, and research goals, and three letters of recommendation to: **Dr. William Spencer, Department of Biological Sciences, Murray State University, P.O. Box 9, Murray, KY 42071-0009**. For additional information see our [website: http://www.mursky.edu/qacd/cos/](http://www.mursky.edu/qacd/cos/) or e-mail: bill.spencer@murraystate.edu. *Equal Education and Employment Opportunity. Minorities/Females/Disabled/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR PLANT EVOLUTIONARY BIOLOGY

The Department of Botany at the University of Georgia invites applications for a tenure-track faculty position in the area of plant evolutionary biology. All aspects of plant evolutionary biology, including processes of plant speciation and genome evolution, will be considered. The successful candidate will be expected to develop a vigorous, externally funded research program and to contribute to teaching at the undergraduate and graduate level. The Botany Department has strengths in several areas of plant biology and extensive links to other plant-related programs on campus. Further information is available at [website: http://www.botany.uga.edu/](http://www.botany.uga.edu/). Candidates must have a Ph.D. and postdoctoral experience. Applicants should send a curriculum vitae, brief statements of research and teaching interests, pertinent reprints of up to five research papers, and have four letters of reference sent to: **Dr. J. L. Hamrick, Chair, Plant Evolutionary Biology Search Committee, Department of Botany, University of Georgia, Athens, GA 30602**. Inquiries may be addressed via e-mail: hamrick@dogwood.botany.uga.edu. Applications received by March 12, 1999, are assured full consideration.

The University of Georgia is an Equal Opportunity Employer.

The oldest college in Nebraska, founded in 1867, Peru State College serves approximately 1,100 full-time and part-time students on campus and an additional 800 in off-campus video- or computer-based courses. Peru State College is located in southeastern Nebraska, approximately one hour drive from Lincoln and Omaha, and two hours from Kansas City, Missouri. Biology faculty. Full-time, tenure-track appointment as **ASSISTANT PROFESSOR** of Biology. Teaching assignments to include courses in human anatomy, freshwater biology, general chemistry, microbiology, ornithology. Undergraduate research program encouraged. Doctorate preferred, ABD considered, or Master's with teaching experience. Review of applications begins immediately, and will continue until the position is filled. Complete applications must include a letter of interest, a résumé, names, addresses, and telephone numbers of at least five professional references. Nominations should include a current mailing address, telephone number, and FAX number of nominee. Position to begin August 1999. Combined materials should be sent to: **Eulanda Cade, Personnel Director, Peru State College, P.O. Box 10, Peru, NE 68421-0010**. *Peru State College is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT/ASSOCIATE PROFESSOR IN GENETIC MEDICINE

Tenure-track Assistant/Associate Professor positions available in the Division of Genetic Medicine, Vanderbilt University. Candidates should have M.D. or M.D.-Ph.D. degrees and have ongoing exemplary research in the areas of (1) understanding the genetic basis for susceptibility to common complex traits or (2) implementing gene therapy. ABMG certification/eligibility is desired. Faculty will have a primary appointment in the Department of Medicine and have opportunities for affiliations to other basic science departments and research centers.

Candidates should submit a current curriculum vitae, summary of research experience and future plans, and names and addresses of three references to:

**Alfred L. George, Jr., Director
Division of Genetic Medicine, 452 MRB-II
Vanderbilt University Medical Center
Nashville, TN 37232**

Vanderbilt University is an Equal Opportunity Employer.

FACULTY POSITION IN MICROBIOLOGY

The discipline of microbiology invites applications for a tenure-track position in microbiology at the **ASSISTANT PROFESSOR** level beginning fall 1999. A Ph.D. is required. The candidate is expected to teach medical microbiology to first and second year osteopathic medical students. Major emphasis is on teaching and service to the college, but research is encouraged.

Applicants should submit curriculum vitae, transcripts, three letters of recommendation, and a statement of teaching philosophy and career objectives to: **Chairman, Microbiology Search Committee, Western University of Health Sciences, College of Osteopathic Medicine of the Pacific, 309 East Second Street, College Plaza, Pomona, CA 91766**. Closing date is March 31, 1999.

The University is an Equal Opportunity/Affirmative Action Employer and actively seeks applications from women and minorities.

Postdoctoral Opportunities

Mount Sinai School of Medicine prides itself on the strides that it makes in research. We owe our successes to the union of true talent and remarkable resources. We currently have postdoctoral positions available in the following areas:

**Mount
Sinai**

Thyroid Hormone Receptor Function

• Investigate the molecular and physiological functions of thyroid hormone receptors, using knock-out mouse models [see EMBO. J. 15: 3006 (1996); Nat. Genet. 13: 354 (1996); PNAS 95: 15758 (1998)]. Present studies focus on the developing auditory system, brain and endocrine system. Experience with molecular biology and/or transgenic mice required. Interested candidates who are eligible for NIH training fellowship support (US citizens or permanent residents) should reply with C.V. and three letters of reference to: **Dr. Douglas Forrest, Department of Human Genetics, Box 1498.**

Bacterial Antibiotic-Resistance: Regulation of the Genes and Structure-Function of the Efflux Proteins

Two positions are available to study: 1) the regulation of Gram-positive tetracycline resistance genes, and 2) the structure-function properties of the multifunctional membrane proteins that these genes encode [see: Mol. Microbiol. 30:923; PNAS 93:14446; JBC 273:26447]. A strong background in molecular biology with a demonstrated interest in bacterial systems is preferred for the first position. For the second position, significant pre-doctoral experience in protein biochemistry is required, with special consideration given to those who have experience with membrane proteins and/or a demonstrated interest in bacterial systems.

These projects are a collaborative effort of the laboratories of Drs. Terry Ann Krulwich and David Bechhofer in the Department of Biochemistry and Molecular Biology; aspects of the structure-function studies also involve an inter-institutional collaboration. Together the interactive laboratories provide a broad exposure to diverse approaches to an important problem in microbial pathogenesis and molecular transport biology. The institutional setting is a dynamic academic environment with an enormous wealth of research activities and support services that enhance the work and the experience of postdoctoral fellows. Reply with C.V. and list of references, with a cover letter indicating the project area of interest and your relevant background, to: **Dr. David Bechhofer, Box 1020. Fax: 212-996-7214.**

We offer a salary commensurate with experience and excellent benefits. For consideration, follow "Reply to" information for your position of interest to: **Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** Visit our website at: www.careermosaic.com/mountsinai We are an equal opportunity employer fostering diversity in the workplace.

Mount Sinai School of Medicine

TULARIK... Creating Drugs that Regulate Genes.

Tularik Inc. is a rapidly growing, privately-held biopharmaceutical company dedicated to the discovery and development of novel therapeutic agents that regulate gene expression. We have recently completed a second, state-of-the-art research building on our campus in South San Francisco which has further increased our capacity to carry out leading-edge research & creative drug discovery. Our continued growth has created several key openings for creative & dedicated scientists to help us shape the future of human therapeutics in the following project areas:

PHARMACOLOGY

Scientist

The position requires a MD degree or a Ph.D. degree in Pharmacology or related discipline, and at least 5 years of hands-on industry experience in drug discovery. The successful candidate will design & implement animal studies in obesity/diabetes and/or immunology/inflammation to support drug discovery & development efforts. (Position Code: PT)

Research Associate

The successful candidate will have a BS/MS degree in pharmacology, biochemistry, toxicology, animal sciences or related discipline and 2-3 years of relevant experience designing & executing *in vivo* pharmacology studies. (Position Code: AM)

ADME

Scientists-Drug Metabolism

The ideal Ph.D. Scientist candidate will have demonstrated experience (in both discovery and development settings) determining the inhibitory and induction potential of new compounds *in vitro* & *in vivo*, and identifying metabolites and enzymes/isoforms responsible for metabolism. Experience with gel electrophoresis, western blotting and immunological inhibition is essential. In addition, experience contributing to the mechanistic solution of pharmacokinetic and/or toxicological problems is highly desirable. (Position Code: MW)

Research Associates- Bioanalytical Chemistry

Qualified candidates will have a BS/MS in analytical chemistry, biochemistry or related discipline and 2-3 years of experience in quantitative analysis of drugs and their metabolites in biological matrices. Experience with LC/MS and LC/MS/MS is highly desirable. (Position Code: MW-RA)

Tularik offers productive & experienced leadership, employee stock options, a competitive salary & benefits package, and a collaborative & stimulating research environment that recognizes achievement. For immediate consideration, please forward your resume with position code to:

Tularik Inc.

Human Resources

Attn: Position Code _____

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South San Francisco, CA 94080

Fax: (650) 829-4303

E-mail: resume@tularik.com

www.tularik.com



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Creating Drugs That Regulate Genes

POSITIONS OPEN



RESEARCH POSITIONS BELTSVILLE HUMAN NUTRITION RESEARCH CENTER

The United States Department of Agriculture (USDA), Agricultural Research Service (ARS), Beltsville Human Nutrition Research Center (BHNRC), is accepting applications for two permanent full-time research positions.

Announcement Number ARS-X9E-9122 for a **RESEARCH NUTRITIONIST, RESEARCH CHEMIST, RESEARCH BIOLOGIST, RESEARCH PHYSIOLOGIST**, or related discipline (salary range \$48,796 to \$89,142). The individuals selected will develop an independent research program concerning organic micronutrients (phytonutrients) as they relate to human nutrition and health. Candidates must have a knowledge of human nutrition, and a record of independent research including publications on phytonutrients or related topics in peer-reviewed journals; Ph.D. is desirable. Specific questions regarding the position may be directed to: **Dr. Beverly Clevidence, Telephone: 301-504-8396.**

Applicants must be U.S. citizens. Must request application materials from: **Beverly Jacobs, Telephone: 301-504-1350** or through **website: www.ars.usda.gov**. The closing date is April 2, 1999. *USDA is an Equal Opportunity/Affirmative Action Employer/Provider.*

TECHNICAL ASSISTANT MIT

The Harvard-MIT Division of Health Sciences and Technology seeks an enthusiastic individual to work on a NASA-funded project in which cells, biomaterials, and tissue culture bioreactors are used to engineer skeletal and cardiovascular tissues. Specific tasks will include cell preparation; tissue culture; implantation studies; and molecular, histological, biochemical, and mechanical analyses.

Requirements: a Bachelor's degree in biology, biomedical engineering, or chemical engineering. Master's degree preferred. Two years of subsequent, relevant laboratory experience in tissue culture and related laboratory equipment and analytical techniques needed. Must have outstanding organizational skills.

This position is available beginning March 1, 1999, for one year with probable extension for at least one more year. Please send résumés, referencing Job No. 99-0012R, and names and telephone numbers of at least three references to: **Kenneth Hewitt, MIT Personnel, P.O. Box 391229, Cambridge, MA 02139-0013**. To apply on-line, **website: web.mit.edu/personnel/www/resume.htm**. *MIT is an Equal Opportunity/Affirmative Action Employer. MIT is a nonsmoking environment.*

NASA PLANETARY BIOLOGY INTERNSHIPS

The Marine Biological Laboratory, Woods Hole, Massachusetts invites applications from graduate students and seniors accepted to graduate programs for Internships to explore scientific questions of global scale about the planet Earth. Interns will receive awards of \$2,200 plus travel to participate in research at NASA centers and collaborating institutions for approximately eight weeks. Typical intern programs include global ecology, remote sensing, microbial ecology, biomineralization, origin and early evolution of life. Application deadline: March 1, 1999. For information/applications, contact: **Michael Dolan, Planetary Biology Internship, Department of Biology, Box 3-5810, University of Massachusetts, Amherst, MA 01003-5810. E-mail: pbi@ibo.umass.edu; Telephone: 413-545-3223.** *An Equal Opportunity/Affirmative Action Institution.*

Biology. Tenure-track position commencing August 1999 at the rank of **ASSISTANT PROFESSOR**. Earned Doctorate in biology, zoology, or related area required. Teaching excellence is of highest priority. Responsibilities may include embryology, histology, anatomy, and general zoology. Send letter of application, curriculum vitae, transcripts, and three letters of recommendation to: **Dr. J. Larry Martin, Dean, School of Arts and Sciences, Missouri Southern State College, 3950 East Newman Road, Joplin, MO 64801-1595.** Questions to: **J. Messick; Telephone: 417-625-9617; e-mail: messick-j@mail.mssc.edu**. Closing date: February 26, 1999. *Missouri Southern State College is an Equal Employment Opportunity/Affirmative Action Employer.*

POSITIONS OPEN



Juniata College announces the faculty openings beginning fall 1999. The College has a rich tradition of excellence in teaching and scholarship and has well-equipped facilities including a field station. For full job announcement and information regarding applying, please refer to our **website: www.juniata.edu/hresources**. Review of applicants begins March 8, 1999.

ASSISTANT PROFESSOR OF ENVIRONMENTAL SCIENCE

Tenure-track position in our Environmental Science and Studies (ESS) Department. A Ph.D. in environmental science or a natural science with environmental emphasis and evidence of effective teaching is necessary. Skills in Geographical Information Systems (GIS) and one of the following specialty areas: chemical fates in soils or aquatic environment, land-use management, chemical toxicology or environmental remediation, environmental impact assessment, or geochemistry of aquatic systems. Start-up funds are available.

ASSISTANT PROFESSOR OF BIOLOGY

Tenure-track position in developmental neurobiology. We seek an individual applying molecular techniques to investigate integrative problems in comparative animal development and neurobiology with preference given for examining nonmammalian animal models. Teaching responsibilities may include courses in developmental biology/embryology, neurobiology, molecular biology, and participation in a freshman laboratory incorporating molecular biology. Willingness to mentor students necessary in supervised and independent research efforts (included in teaching credit). Start-up funds and dedicated research space provided.

Affirmative Action/Equal Opportunity Employer. Juniata is committed to gender and cultural diversity and encourages applications from women and minorities.

BIOCHEMIST/MOLECULAR BIOLOGIST

The Stable Isotope Group at Martek Biosciences Corporation is a world leader in the production of isotopically enriched biochemicals for structural and metabolic research by NMR and m/s. The Group has developed a unique technology for the production of labeled materials in tissue cell culture, thus permitting the structural analysis of glycoproteins, multidomain, and membrane-bound proteins. The Group now has a requirement for a Ph.D. Protein Biochemist/Molecular Biologist to design and implement methods and procedures for the expression and purification of isotopically enriched proteins, glycoproteins, and receptors. The successful candidate will have extensive experience in all these areas, at least to the postdoctoral level, using bacterial, insect, and mammalian expression systems. Experience in the production of proteins for NMR analysis would be an advantage. The successful candidate will assume responsibility for the supervision of the program and will assist in the business development of the Group. Salary will be consistent with experience. Martek offers an excellent benefit package. Please apply in writing to: **Human Resources, Department S1, Martek Biosciences Corporation, 6480 Dobbin Road, Columbia, MD 21045.** No telephone calls please. *Equal Opportunity Employer. Minorities/Females/Disabled/Veterans.*

MARINE BIOLOGIST/ BIOLOGICAL OCEANOGRAPHER

The Division of Marine Science at Harbor Branch Oceanographic Institution invites applications for an **ASSOCIATE SCIENTIST** (equivalent to Associate Professor). We are seeking a scientist with an established record of scientific productivity, a proven track record of obtaining external funding, and research interests and capabilities to complement existing programs. Those with expertise in (1) marine microbiology, (2) phytoplankton biology, (3) molecular genetics, or (4) deep-sea ichthyology and who have research programs that promote utilization of HBOI research vessels and submersibles are especially encouraged to apply. Applicants should submit a curriculum vitae, reprints of up to five significant publications, outline of future research interests, and names of three references to: **Personnel, Harbor Branch Oceanographic Institution, 5600 US 1 North, Ft. Pierce, FL 34946. FAX: 561-466-3644; e-mail: personnel@hboi.edu; website: www.hboi.edu**. Respond no later than March 31, 1999. *Equal Opportunity Employer/Affirmative Action/dmg-free workplace.*

POSITIONS OPEN

EARLY ALERT RESEARCH HYDROLOGIST/ GEOLOGIST (GEOMORPHOLOGIST)

USDA, Forest Service, Pacific Northwest (PNW) Research Station, Juneau, Alaska. The PNW Research Station (**website: <http://www.fs.fed.us/pnw>**) anticipates filling the above permanent, full-time position in the near future at the GS-12, 13, or 14 level. Primary responsibilities include the design, execution, and publication of applied research investigating the relationships of land use to physical processes and components of forest ecosystems. Cooperative, interdisciplinary research is essential. Primary expertise may include hillslope or fluvial geomorphology or hydrology (including landscape ecology or hyporheic and perihic processes). Other responsibilities include supervision of one or more professional Hydrologists and Technicians.

It is anticipated that the most competitive candidates will have sufficient academic training to be considered a peer among the physical science research community, a record of positive and successful interdisciplinary working relationships, recent publications in peer-review journals, and a record of generating external research funding. The willingness and ability to do field work from remote, primitive camps and carry heavy loads over rugged terrain in inclement weather are essential. Fieldwork occurs in remote locations, accessible only by small floatplanes or boats, commonly in Alaska brown bear habitat. Therefore, large-caliber firearms are carried in the field, and a security check must be completed. Random drug testing is also required. Information about the area can be found at **website: <http://www.juneau.com>**. Send a letter of interest and curriculum vitae or requests for additional information to:

**Dr. Richard D. Woodsmith
Watershed Research Team Leader
USDA, Forest Service
Pacific Northwest Research Station
2770 Sherwood Lane, Suite 2A
Juneau, AK 99801-8545
Telephone: 907-586-8811, ext. 229
FAX: 907-586-7848
E-mail: rwoodsmith/r10@fs.fed.us**

The purpose of this early alert is to maximize diversity of the pool of candidates.

USDA is an Equal Opportunity Employer.

ECOLOGIST

The Institute of Pacific Islands Forestry seeks a leader for its team on nonindigenous plant species. Applicants should have significant supervisory and research experience in ecosystem processes, plant population and community ecology, or plant-insect interactions. Location is Hilo, Hawaii. The Institute is part of the USDA Forest Service's Pacific Southwest Research Station. This position is GS-13/14; salary range is \$60,000 to \$90,000 including cost-of-living adjustment. *Candidates must be U.S. citizens.* Application guidelines and instructions are available on the USA job **website: www.usajobs.opm.gov** and from: **Personnel Management, Pacific Southwest Research Station, P.O. Box 245, Berkeley, CA 94701 Attn: PSW-DEMO-155-99. Telephone: 510-559-6350; FAX: 510-559-6352; e-mail: pm/psw@fs.fed.us**. Questions regarding the position can be directed to: **Dr. Katherine C. Ewel, Telephone: 808-522-8230; FAX: 808-522-8236; e-mail: kewel@gte.net**. All application materials must be received by February 26, 1999. *The U.S. Department of Agriculture is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE

The California Pacific Medical Center Research Institute, located in scenic San Francisco, California, has an opening for a Research Associate.

Candidates are expected to have a Ph.D. and two to four years of experience in cell culture, molecular biology, and animal studies. They will conduct preclinical studies (chemotherapeutic, radiosensitizing, pharmacokinetic, and toxicological studies), and investigate the cellular and molecular mechanisms of radiosensitization and chemotherapeutic action.

Interested individuals should send their curriculum vitae to: **Dr. Li Xi Yang, Director, Radiation Biology Laboratory, California Pacific Medical Center Research Institute, OPR Building Room #602, 3801 Sacramento Street, San Francisco, CA 94118 USA. FAX: 415-750-6215; e-mail: yang@cooper.cpmc.org**. Visit our **website: www.cpmc.org**. *Equal Opportunity Employer.*

Scientists



Located in the San Francisco Bay Area, Connetics Corporation is a growing biopharmaceutical company focused on the acquisition, development and marketing of products in the areas of rheumatology and dermatology. We currently have an exciting opportunity for experienced, hands-on professionals to join our expanding R&D team.

Pharmacology & Toxicology

You will be responsible for the design, conduct, analysis and reporting of *in vivo* studies, including connective tissue disorder models, toxicology, and PK. You will also independently plan & conduct projects, participating in all phases of protocol requirements (micro-surgery, dosing, observation, sampling, histology, etc.), and initiate new model development, data analysis and reports. Candidates must possess a PhD/DVM/MD in pharmacology, toxicology, or immunology; 2-5 years' experience working in a preclinical pharmacology/toxicology laboratory; prior experience supervising lab personnel; a solid understanding of GLP; PC proficiency; and excellent scientific and/or regulatory writing & documentation skills. (Job Code: RD50-98-S)

Assay Development & Clinical Sciences

In this key role, you will develop assays to support our preclinical & clinical protein and drug products. You will also develop/ implement cellular & biochemical assays to characterize newly designed products. Candidates must possess a Ph.D. in cell biology, biochemistry, immunology or related field; 2-5 years' experience in immunoassay & bioassay development and analytical data evaluation; hands-on experience with cell sorting/culture; familiarity with quantitative biological methods and analytical chemistry & biochemistry; and excellent written/verbal communication skills. Relevant product development experience in the biopharmaceutical industry is a plus. The ability to develop productive academic collaborations helpful. (Job Code: RD60-99-S)

Connetics offers competitive salaries and benefits, stock options and the opportunity to make significant scientific contributions. Please send your resume to: Connetics Corporation, (Attn: Job Code), 3400 West Bayshore Road, Palo Alto, CA 94303; fax: (650) 843-2899; email: hr@connetics.com. EOE

www.connetics.com



THE UNIVERSITY OF MISSOURI 18 FACULTY POSITIONS IN LIFE SCIENCES

The University of Missouri—Columbia is significantly enhancing its life sciences research mission. New state funding will advance excellent interdisciplinary programs that link the Colleges of Agriculture, Arts & Science, Engineering, Human Environmental Sciences, Medicine, and Veterinary Medicine. Initially, the planned four-year Life Sciences Mission Enhancement Program focuses on two areas: (i) recruiting outstanding faculty scientists to enhance interdisciplinary research at MU; and (ii) building research infrastructure through laboratory construction and renovation, expansion of an extensive Core Facility network, and development of a Life Sciences Fellowship program. A total of 26 positions are being developed in this initial phase; searches are underway for 18 of these:

Radiopharmaceutical Sciences

Professor, Nuclear Medicine—Oncology
Assoc. Professor, Veterinary Tumor Biologist

Cystic Fibrosis — Assoc. Professor, Pediatric Pulmonology

Reproductive Biology

Asst./Assoc. Professor, OB/GYN—Endometrial Biology
Asst./Assoc. Professor, OB/GYN—Ovarian Function
Asst./Assoc. Professor, Biochemical Endocrinology/Signal Transduction
Asst./Assoc. Professor, Embryology/Developmental Biology
Asst./Assoc. Professor, Cell Biology/Developmental Biology
Asst./Assoc. Professor, Molecular Biology/Genetics/Genomic Mapping

Nutritional Sciences

Asst. Professor, Mineral Nutrition/Radioisotopes
Asst. Professor, Molecular Biology of Minerals

Crop Genomics

Professor, Maize Genomics
Professor, Bioinformatics
Professor, Soybean Biotechnology (Endowed Professor)
Professor, Soybean Genetics (Endowed Professor)
Professor, Soybean Genomics/Microbial Interactions (Endowed Professor)

Agroforestry — Assoc. Professor, Agroecosystems

Cardiovascular Health — Professor, Functional Genomics

See <http://www.research.missouri.edu/lsmc/newpositions.html> for descriptions of the program and faculty positions, search committee addresses, and application deadlines. Applicants should send their curriculum vitae, research program summary, representative publications, and three professional references to the appropriate search committee chair.

OmniScience Pharmaceuticals,

an emerging leader in molecular-biology based small organic molecule drug discovery and antibiotic resistance, is seeking experienced and innovative scientists to join our dynamic, entrepreneurial team. Excellent oral and written communication skills and the ability to effectively interact within a multidisciplinary team environment are essential for all positions.

Staff Scientist, Prokaryotic Molecular Biology — We are in immediate need of a Ph.D. level scientist with considerable independent research experience in industry and/or academia. Experience in cloning, library construction, and expression studies with a variety of prokaryotic systems including actinomycetes, myxobacteria, and marine microorganisms is preferred. Microbiology/cell culture experience considered a plus (job code 210).

Staff Scientist, Prokaryotic & Molecular Evolution — We are in immediate need of a Ph.D. level scientist with considerable independent research experience in industry and/or academia. Requires experience in laboratory-based experimental microbial evolution (e.g. chemostatic studies, directed evolution, etc.), physiology, and ecology to join a team effort engaged in innovative applications of directed evolution at both the organismic and molecular level (job code 220).

Postdoctoral Associates (2 positions) — Prokaryotic Molecular Biology: This position will join an ongoing team effort engaged in innovative methods of gene discovery, cloning, library construction, and expression studies with a variety of prokaryotic systems including actinomycetes, myxobacteria, and marine microorganisms. Candidates with a Ph.D. and documented experience in prokaryotic molecular biology or microbiology are preferred (job code 310). Prokaryotic & Molecular Evolution: This position will join an ongoing team effort engaged in innovative methods and studies of directed evolution at both the organismic and molecular level. Candidates with a Ph.D. and documented experience in experimental microbial evolution (particularly using chemostats), microbiology, molecular biology, or chemostatic studies are preferred (job code 320).

Research Associates — B.S. level scientists are sought to assist in various areas of R&D. Degree must be in molecular biology, microbiology, biochemistry, or a closely related field. Successful candidates will be broadly trained and possess strong technical skills in microbiology, PCR, gene cloning and expression, and protein chemistry and characterization (job code 250).

OmniScience offers a competitive compensation and benefits package in addition to a unique, entrepreneurial work environment that fosters the growth of both the Company and the individual.

If you possess the required qualifications and wish to work in a unique and challenging team environment for an emerging leader in drug discovery, please mail your CV for confidential consideration (no phone inquiries, please) to **Human Resources (job code), OmniScience Pharmaceuticals, Inc., 4665 S. Ash Avenue, Suite G-18, Tempe, Arizona 85282**. For additional information about OmniScience, please visit our website at www.omnipharm.com or e-mail us: info@omnipharm.com.

POSITIONS OPEN

ASSOCIATE CHIEF OF STAFF, RESEARCH DEPARTMENT OF VETERANS AFFAIRS Affiliated with the University of Pennsylvania

Applications are invited for the position of Associate Chief of Staff of Research at the Philadelphia VA Medical Center. The clinical and research programs at the Philadelphia VA Medical Center are fully integrated with the University of Pennsylvania and are undergoing a reinvigorated commitment to academic, clinical, and research excellence. *Qualified candidates must possess U.S. citizenship, a M.D. degree, and Board certification, in addition to demonstrated excellence in research, experience in administration, leadership potential, and commitment to building an excellent research program at the Philadelphia VAMC.* The individual should qualify for an appointment as a tenured faculty member at the University of Pennsylvania at either the Professor or Associate Professor level. Please submit application, recommendations, and curriculum vitae to: **Bonnie Rossi, Department of Veterans Affairs Medical Center, University and Woodland Avenue, Philadelphia, PA 19104. FAX: 215-823-4608.** *The Department of Veterans Affairs and University of Pennsylvania are Equal Opportunity Employers.*

OPPORTUNITIES IN RESEARCH AND DEVELOPMENT

Consensus Pharmaceuticals, a newly formed company exploiting a unique drug discovery technology, is seeking candidates at the **SENIOR SCIENTIST** (Ph.D.) and **RESEARCH ASSOCIATE** (B.S., M.S.) levels. Successful candidates will have a strong background in the synthetic and analytical aspects of peptide chemistry, and in the development of enzyme inhibitors. For further information on Consensus see **website: www.Consensus-pharm.com**. Consensus offers a challenging, fast-paced entrepreneurial environment and an excellent compensation package. Interested candidates should submit a curriculum vitae to:

**Consensus Pharmaceuticals, Inc.
Director of Human Resources
200 Boston Avenue
Medford, MA 02155**

Consensus is an Equal Opportunity Employer.

OPPORTUNITIES IN RESEARCH AND DEVELOPMENT

Consensus Pharmaceuticals, a newly formed company exploiting a unique drug discovery technology, is seeking candidates at the **SENIOR SCIENTIST** (Ph.D.) and **RESEARCH ASSOCIATE** (B.S., M.S.) levels. Successful candidates will have a strong background in the expression and purification of proteins using baculovirus and transfection techniques. For further information on Consensus see **website: www.Consensus-pharm.com**. Consensus offers a challenging, fast-paced entrepreneurial environment and an excellent compensation package. Interested candidates should submit a curriculum vitae to:

**Consensus Pharmaceuticals, Inc.
Director of Human Resources
200 Boston Avenue
Medford, MA 02155**

Consensus is an Equal Opportunity Employer.

CASE WESTERN RESERVE UNIVERSITY CELL PHYSIOLOGY, PULMONOLOGY

Opportunity immediately available to study targeting of protein kinase C to Na-K-2Cl cotransport protein using native epithelial cells and cell lines. Studies will involve biochemical and microscopic techniques to analyze cellular proteins required for protein-protein interaction. Qualified candidates should have a Ph.D. in physiology, biochemistry, or molecular biology. The candidate will participate in a multidisciplinary research program in airway epithelial cell biology in a Cystic Fibrosis Center. The position is funded by the NIH. Candidates should submit curriculum vitae with names, addresses, and telephone numbers of three references to: **Dr. Carole M. Liedtke, Pediatric Pulmonology, Case Western Reserve University, BRB Room 824, 2109 Adelbert Road, Cleveland, OH 44106-4948. E-mail: cxl7@po.cwru.edu.**

CWRU is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

Rigel is a demanding and fast-paced biotechnology company using revolutionary gene transfer technologies to identify and validate novel drug targets in the areas of asthma, inflammation, and cancer. The following positions are open:

ASSOCIATE DIRECTOR/ DIRECTOR OF MOLECULAR BIOLOGY

(Job Code# DMB-199-SFC) Rigel is seeking an Associate Director/Director of Molecular Biology committed to excellence in research in this established but growing department. Qualified candidates will have a Ph.D. in biological sciences, a minimum of six to eight years of industry research experience, and a strong publication record. Candidates must have the ability to lead and participate on teams in a highly collaborative, team-oriented environment. Demonstrated scientific excellence and managerial experience in an industry setting is required.

POSTDOCTORAL POSITION

(Job Code# PD-199-SFC) We are looking for an aggressive Postdoctoral candidate who possesses a strong publication record in protein engineering and molecular biology. Skills in protein design, engineering, and expression; molecular biology; and some experience in the design and use of peptide libraries would be desirable. Excellent motivation and teamwork skills are essential. Individuals will be expected to work closely with senior scientific staff on the design and testing of intracellular peptide libraries expressed in mammalian cells, and will be encouraged to publish.

Rigel offers competitive salaries and benefits, attractive stock options, and the opportunity to make significant research contributions. See our **website: www.rigel.com**. Please send résumé quoting Job Code# to: **Rigel, Inc., 772 Lucerne Drive, Sunnyvale, CA 94086.** Or reply via e-mail (ASCII format only) to: **e-mail: jobs@rigel.com**. Rigel will be relocating to South San Francisco in early 1999. *Equal Opportunity Employer.*

HEALTH SCIENCE SPECIALIST U.S. DEPARTMENT OF VETERANS AFFAIRS MEDICAL RESEARCH SERVICE

Medical Research Service, Department of Veterans Affairs (VA) is recruiting for the position of Health Science Specialist in the Program Management Section, located at VA Headquarters, Washington, D.C. The Health Science Specialist will be programmatically responsible for portfolio management and administration of VA research related to organ physiology and pathophysiology (cardiac, pulmonary, gastrointestinal, and renal diseases). Candidates must have a Ph.D. degree with a research background in a relevant area of organ physiology. Experience in grant writing and/or review is desirable. Competitive salary, benefits package, and limited relocation assistance available. Applicants should send recent curriculum vitae and a letter summarizing research and administrative experience to: **Director, Medical Research Service (121E), VA Headquarters, 810 Vermont Avenue N.W., Washington, DC 20420.** For further information, contact: **Peggy Swoveland, Ph.D., Telephone: 202-275-0040; e-mail: peggy.swoveland@mail.va.gov.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITION available to join a research program focusing on basic and applied tumor immunology. Areas of study: antigen-processing, T-cell co-stimulation, peripheral tolerance to tumor antigens, immune reconstitution/hematopoietic stem-cell transplantation, and novel vaccine strategies. Studies utilize both mouse models and human material from clinical trials. Ph.D. with an emphasis on molecular and cellular immunology desired. Send curriculum vitae, summary of research interests, and three references to: **Dr. Hyam Levitsky, Johns Hopkins University School of Medicine, 347 Ross Building, 720 Rutland Avenue, Baltimore, MD 21205. E-mail: hy@jhmi.edu.**

FOOD SCIENTIST/TECHNOLOGIST

The Institute of Food Technologists seeks an exceptional Food Scientist with strong communications skills to develop scientific information about food/technology for technical and lay audiences. Requirements: Ph.D. or equivalent in food science/technology or related discipline; superior writing skills; ability to manage several tasks on deadline and work well with others. Describe your expertise and career interests, including a résumé and names of three referees, to: **Science Communications—NP, Institute of Food Technologists, 221 North LaSalle Street, Suite 300, Chicago, IL 60601-9045. IFT is a 501(c)(3) nonprofit scientific society and encourages applications from all qualified candidates.**

POSITIONS OPEN

RESEARCH FELLOW needed to work at the Bedford VA hospital, Bedford, Massachusetts on an NIH-funded project. The Research Fellow will conduct biochemical and molecular biological experiments on the enzymes of proteoglycan synthesis. Work entails enzyme purification, cloning and expression of genes encoding the enzymes involved in synthesis, enzyme assays, cell culture, preparation of acceptor oligosaccharide substrates, and cell fractionation. Ph.D. in biochemistry, molecular biology, or related with some experience and interest in glycoconjugate research is desirable. Please send curriculum vitae and names of three references to: **Dr. G. Sugumaran, VA Medical Center, Building 70, 200 Springs Road, Bedford, MA 01730. Telephone: 781-687-2890; FAX: 781-687-3106.**

POSTDOCTORAL RESEARCH FELLOWSHIP.

Postdoctoral Research position is available immediately in the Department of Physiology and Biophysics at Case Western Reserve University, School of Medicine in the area of control of respiration and circulation. Projects include regulation of carotid body activity during hypoxia and reflex regulation of breathing and circulation in transgenic mice, as well as studies on isolated brain stem and spinal cord preparations. Interested applicants with training in neurophysiology, integrated cardiovascular, and respiratory physiology are invited to contact: **Nanduri R. Prabhakar, Ph.D., D.Sc., Case Western Reserve University, School of Medicine, Department of Physiology and Biophysics, 10900 Euclid Avenue, Cleveland, OH 44106-4970.**

RESEARCH SCIENTIST will join research team in the investigation of growth factor induces extracellular matrix in diabetic ocular neovascularization. Candidates must process at least five years of postdoctoral experience evidenced by high-quality research; demonstrated experience with tissue culture techniques and growth factors; basic knowledge of cell and molecular biology; computer knowledge and familiarity with clinical ocular terminology desired; and publication record. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Alexander Ljubimov, Ph.D., Ophthalmology Research, Davis Research Building, Room 5069, Cedars-Sinai Medical Center Research Institute affiliated with UCLA School of Medicine, 8700 Beverly Boulevard, Los Angeles, CA 90048-1869. E-mail: ljubimov@csmc.edu.**

POSTDOCTORAL POSITION BAYLOR COLLEGE OF MEDICINE

Postdoctoral position available immediately in the Cell Biology Department at Baylor College of Medicine, to study the mechanisms of nuclear transport in mammalian cells by primarily biochemical and cell biological techniques. Please submit curriculum vitae with names of three references to: **Dr. Mary S. Moore, Department of Cell Biology, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. E-mail: mmoore@bcm.tmc.edu.**

POSTDOCTORAL FELLOW

A NIH-funded position will be available April 1999 to study regulation of gene expression in the retina using transfection and transgenic techniques. Experience in cell and molecular biology essential. Knowledge of transgenic techniques desirable. Please send your curriculum vitae and names of three references to: **Dr. Vijay Sarthy, Department of Ophthalmology, Northwestern University Medical School, 300 East Superior Street, Tarry 5-715, Chicago, IL 60611. E-mail: vjsarthy@nwu.edu; FAX: 312-503-1210.**

POSTDOCTORAL POSITIONS available to study a recently discovered process controlling eukaryotic gene expression. Projects cover the basic mechanism of RNA polymerase II elongation control and the involvement of this process in HIV-1 Tat-transactivation. Applicants must have a good publication record in international journals. Send curriculum vitae and list of references to: **David H. Price, Ph.D., Department of Biochemistry, University of Iowa, Iowa City, IA 52242. E-mail: david-price@uiowa.edu; website: http://128.255.116.147/pricelab.**



MAYO CLINIC POSTDOCTORAL POSITION

A postdoctoral position is available at Mayo Clinic for MD or PhD fellow preferably with experience in cell/molecular biology interested in pursuing research training in the area of hepatic vascular biology/pathobiology. Interested individuals should send curriculum vitae and references to:

Vijay Shah, M.D.
GI Research Unit, Alfred 2-435
Mayo Clinic
200 1st St. SW
Rochester, MN 55905
e-mail: shah.vijay@mayo.edu
or fax: 507/255-6318

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San Francisco**

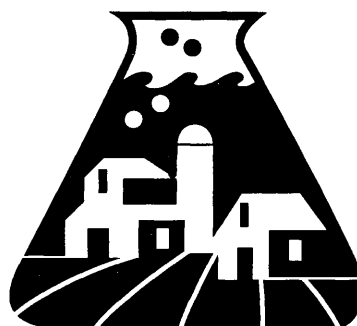
**is seeking a
Postdoctoral Fellow in
Human Genetics**

The Postdoctoral Fellow we seek should have experience in positional cloning and mutation detection to work on identification of mutations in familial non-Alzheimer's dementia. Postdoctoral Fellows should have a Ph.D. or M.D. in the appropriate area of research. Salary levels will be commensurate with experience. Applications including curriculum vitae, summary of research experience, and letters from three references should be sent by letter, email, or fax to the following address:

Kirk C. Wilhelmsen, M.D., Ph.D.
UCSF Gallo Center
Building 1, Room 101
San Francisco General Hospital
San Francisco, CA 94110
kirk@wildtype.ucsf.edu
fax (415) 648-7116

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POSITIONS OPEN

Two **POSTDOCTORAL POSITIONS** available at the Hormel Institute, University of Minnesota, Austin, Minnesota to study the signal transduction in tumor promotion and chemoprevention (*MCB* 16:6427, 1996; *JBC* 271:9942, 1996; *JBC* 271:3126, 1996; *JBC* 272:4187, 1997; *JBC* 272:9962, 1997; *JBC* 272:26325, 1997; *JBC* 272:27753, 1997; *PNAS* 94:5826, 1997; *PNAS* 94:11957, 1997; *PNAS* 95:156, 1998; *Cancer Res.* 57:2873, 1997; *Cancer Res.* 57:4414, 1997; *Cancer Res.* 58:711, 1998; *Cancer Res.* 58:4102, 1998). We are seeking self-motivated Ph.D.'s with experience in biochemistry, molecular and cellular biology. Experience in gene cloning and signal transduction systems is a plus. Please send your curriculum vitae and the names and telephone numbers of three references to: **Dr. Zigang Dong, The Hormel Institute, University of Minnesota, 801 16th Avenue N.E., Austin, MN 55912. FAX: 507-437-9606; e-mail: zgdong@smig.net.** These positions will remain open until qualified candidates are found. The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

POSTDOCTORAL POSITION BREAST CANCER

We investigate mechanisms of estrogen receptor using molecular/cellular biology and biochemical approaches. We study synergistic regulation of estrogen-responsive genes *in vitro* and *in vivo* and design receptor-based therapy for breast cancer. Expertise in cellular/molecular biology required and in mechanistic biochemistry desired. Check our papers on MEDLINE and our homepage. Send curriculum vitae and three supporting letters to: **Dr. Russell Hilf and Dr. Robert Bambara, Biochemistry/Biophysics and Cancer Center, Box 712, University of Rochester Medical Center, 601 Elmwood Avenue, Rochester, NY 14642. We are an Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS available in molecular cardiology. Current projects include cloning novel transcription factors; investigating signal-dependent cell cycle regulation; developing approaches to cellular regeneration. See website: <http://bernstein.ucsf.edu> for details. Applicants must be U.S. citizens/permanent residents with Ph.D. and/or M.D.; strong background in molecular/cellular biology required. Send curriculum vitae, research summary, and names of three references to: **H. S. Bernstein, M.D., Ph.D., University of California, San Francisco, 513 Parnassus Avenue, Box 0632, San Francisco, CA 94143. FAX: 415-476-3112; e-mail: hsbernstein@pedcard.ucsf.edu. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION

Postdoctoral position available immediately to study the molecular role of cytokines in viral neuropathogenesis. Candidates with expertise in molecular virology, neurovirology, or neuroimmunology will be favored. Please send curriculum vitae, statement of research interest, and three letters of recommendation to: **Dr. Gail Lewandowski, Director of Virology, Virion Systems, Inc., 9610 Medical Center Drive, Suite 100, Rockville, MD 20850. An Equal Opportunity Employer.**

A **POSTDOCTORAL RESEARCH** position is available to examine the role of the thymus during HIV/SIV infection. Applicants should have a strong background in cellular immunology.

Please send curriculum vitae and the names of three references to: **Dr. Michael Rosenzweig, Division of Immunology, New England Regional Primate Research Center, Harvard Medical School, P.O. Box 9102, Southborough, MA 01772. E-mail: michael_rosenzweig@hms.harvard.edu.**

POSTDOCTORAL POSITION at Virginia Tech University in NSF-funded project involving molecular biology of cell differentiation in *Dictyostelium*. The goal is to identify the role played by 5' nucleotidase in the regulation of morphogenesis. This will involve gene disruption and identification, purification, and cloning of transacting factors. For further information contact: **Dr. Charles L. Rutherford, Telephone: 540-231-5349; e-mail: rutherford@vt.edu.**

POSITIONS OPEN

POSTDOCTORAL POSITION MOLECULAR VIROLOGY

Department of Molecular Genetics and Biochemistry at University of Pittsburgh invites applications for a Research Associate with expertise in molecular virology. Candidate will participate in a multidisciplinary research program involving SIV pathogenesis and vaccine development within the University of Pittsburgh Center for AIDS Research. Individual will be responsible for the construction and evaluation of replication defective vector systems as vaccine delivery vehicles in nonhuman primates. Positions are available at both junior and senior-level positions. Candidates must have a Ph.D. or equivalent degree. Please send curriculum vitae and three letters of reference to:

Dr. Michael Murphy-Corb
Professor, Department of Molecular Genetics
and Biochemistry
Director, Primate Facility for Infectious
Disease Research
University of Pittsburgh School of Medicine
E1240 Biomedical Science Tower
Pittsburgh, PA 15261
Telephone: 412-648-9750
FAX: 412-624-8997

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

POSTDOCTORAL POSITIONS IN MACROMOLECULAR CRYSTALLOGRAPHY

Two Postdoctoral positions are available immediately, one each in the laboratories of **Dr. David Timm** and **Dr. Thomas Hurley**, at the Indiana University School of Medicine. Both positions require previous experience in macromolecular crystallography or extensive experience in protein structure/function analysis and heterologous protein expression. Salary levels will be commensurate with experience. Facilities include an R-AXIS IIC area detector with Yale focusing mirrors, nine Silicon Graphics workstations, five new Digital Alpha workstations, and over 2,100 square feet of newly constructed laboratory space. Current projects include alcohol and aldehyde dehydrogenases, glycogen synthetic enzymes, carboxylesterases, signaling proteins, and novel metalloenzymes. Interested persons are asked to send their curriculum vitae along with the names and addresses for three letters of reference to either: **Dr. Thomas Hurley** or **Dr. David Timm** at the Center for Structural Biology, Department of Biochemistry and Molecular Biology, 635 Barnhill Drive, Indianapolis, IN 46202-5122. E-mail: thurley@iupui.edu or dtimm@iupui.edu. Indiana University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL SCIENTISTS MOLECULAR BIOLOGY

Corixa Corporation is a biotechnology company dedicated to the development of T cell vaccines and therapies for cancer and infectious diseases. Corixa is seeking Ph.D. and/or M.D. Postdoctoral Scientists to join our antigen discovery efforts.

Leishmania: Candidates with molecular biology background to work on the development of vaccine candidates for leishmaniasis. Skills in full-length cloning and gene expression are preferred. Job# 1999-20.

Cancer: Candidates with molecular biology background and experience in cDNA library construction to work on tumor antigen discovery. Skills in full-length cloning and bioinformatics are preferred. Job# 1999-04.

Corixa offers competitive salary and benefits in a progressive work environment. Please send curriculum vitae, statement of research interests and experience, and names of three references by February 28, 1999, to: **Corixa Corporation, Attn: (Job#), 1124 Columbia Street, Suite 200, Seattle, WA 98104. FAX: 206-754-5715; website: <http://www.corixa.com>. Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS available to study regulation of intracellular transport and cytoskeletal organization. Opportunity will be available to focus on either basic mechanisms or applications to broader cellular processes that include cell motility. Please send curriculum vitae with names of three references to: **Victor Hsu, M.D., Harvard Medical School, Brigham and Women's Hospital, Smith Building 538B, One Jimmy Fund Way, Boston, MA 02115. FAX: 617-525-1010; e-mail: vhsu@rics.bwh.harvard.edu.**

POSITIONS OPEN

One **POSTDOCTORAL POSITION** is available at The Torrey Pines Institute for Molecular Studies to study serine protease structure/function relationships (particularly with respect to zymogen activation and substrate specificity), design of protease inhibitors, and/or development of new technologies and techniques to study protease biochemistry and chemical biology. Extensive experience in molecular biology, including PCR, site-directed mutagenesis, phage display, and *in vitro* evolution of nucleic acids or proteins, is preferred. Experience with protease expression and purification, and kinetic analysis of enzyme activity and inhibition is also preferred.

Representative publications from the laboratory include: *Nature* 339:721-723; *Science* 262:419-421; *PNAS* 92:7627-7631; *JBC* 270:30486-30490; *JBC* 271:28749-28752; *JBC* 272:28-32; *JBC* 272:16603-16609; *NAR* 25:3371-3372; and *Chemistry and Biology* 5:475-488.

The Torrey Pines Institute for Molecular Studies provides a very stimulating scientific environment, and San Diego provides an exceptionally pleasant climate and much natural beauty.

To apply, please send a curriculum vitae to: **Edwin L. Madison, c/o Karen Douthitt, Torrey Pines Institute for Molecular Studies, 3550 General Atomics Court, San Diego, CA 92121.**

POSTDOCTORAL POSITIONS HARVARD MEDICAL SCHOOL

Two positions are immediately available for studying the regulation of tubule formation in the kidney. The signaling events, cell-cell interactions, and cell-matrix interactions of renal epithelial cell morphogenesis are the major interests of the laboratory. Experience in molecular biology, protein biochemistry, immunohistochemistry, and/or phase contrast microscopy preferred. Please send a description of your research experience, curriculum vitae, and three references to: **Dr. Lloyd Cantley, Division of Nephrology, Beth Israel Deaconess Medical Center, 330 Brookline Avenue, Boston, MA 02215. FAX: 617-667-5276; e-mail: lcantley@bidmc.harvard.edu.**

Harvard University is an Equal Opportunity/Affirmative Action Employer.

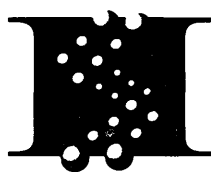
POSTDOCTORAL POSITIONS available immediately to study (1) mechanisms by which vascular endothelial cell growth factor promotes endothelial cell responses and angiogenesis; (2) tumor necrosis factor-promoted activation of NF- κ B and apoptosis. Expertise in molecular biology is desirable. Send curriculum vitae and the names, telephone/FAX numbers of three references to: **David B. Donner, Ph.D., Department of Microbiology and Immunology and the Walther Oncology Center, Indiana University School of Medicine, 1044 West Walnut Street, Indianapolis, IN 46202. FAX: 317-274-7592; e-mail: ddonner@iupui.edu.**

POSTDOCTORAL POSITION in molecular toxicology. An NIH-funded Postdoctoral position is available immediately to conduct research on the molecular regulation of cytochrome P4501A genes in animal and cell culture systems. A Ph.D. with good molecular biology experience is essential. Please send curriculum vitae and names and telephone numbers of three references to: **Bhagavatula Moorthy, Ph.D., Assistant Professor, Department of Pediatrics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. FAX: 713-798-5691; e-mail: bmoorthy@neo.bcm.tmc.edu.**


POSTDOCTORAL POSITIONS

Postdoctoral positions are available for Ph.D. or M.D. candidates to study the pathogenesis of IDDM. Experience in molecular biology, cellular immunology, or transgenic animal systems highly desirable. Send curriculum vitae, brief description of research interests, and three references to: **Dr. William Kwok, Virginia Mason Research Center, 1000 Seneca Street, Seattle, WA 98101. E-mail: bkwok@vmc.org. VMRC is an Equal Opportunity/Affirmative Action Employer.**

Faculty Positions at the Huntsman Cancer Institute



HUNTSMAN
CANCER INSTITUTE

AT THE UNIVERSITY
OF UTAH 

The Huntsman Cancer Institute at the University of Utah is seeking applicants for tenure-track faculty positions at the level of Assistant Professor, Associate Professor or Professor. The Huntsman Cancer Institute, with a 225,000 sq. ft. research facility opening in spring 1999, is building a comprehensive research program with human cancer applications. Three to five positions are available within the next year. Investigator Groups focus on Cell Signaling, Cell Cycle, Transcriptional Regulation, Cell Adhesion, and Cancer Biology, including apoptosis and angiogenesis. Providing an atmosphere of creativity, multidisciplinary approaches and strong institutional support, the Huntsman Cancer Institute and the University of Utah are committed to emerge as leaders in both basic and translational cancer research.

Please send CV, statement of research interests and goals and three letters of reference. For full consideration, applications should be received before February 20, 1999. Send any inquiries to: HCI.recruitment@hci.utah.edu

Send all applications to:
Huntsman Cancer Institute
University of Utah
Attention: Recruitment Office
15 North 2030 East, Rm. 7410
Salt Lake City, UT 84112-5330

The Huntsman Cancer Institute and the University of Utah are Equal Opportunity/Affirmative Action Employers. Women, minority and international candidates are encouraged to apply.

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E-Mail: whconferences@mds.qmw.ac.uk

Public Health Service National Institutes of Health National Institute of Environmental Health Sciences Research Triangle Park, North Carolina

Postdoctoral Research Positions

Two positions available immediately to study the function of adaptor proteins in regulating signal transduction cascades controlled by tyrosine kinases [PNAS, (1996) 93, 2729; JBC (1996) 271, 11787; JBC (1998) 273, 20431]. Using a combination of biochemistry and molecular biology coupled with cell culture and animal models, we are examining the role of adaptor proteins in signal transduction as related to tumorigenesis, differentiation and neural development. A strong background in protein biochemistry, molecular biology and tissue culture is preferred. Contact John P. O'Bryan, 919-541-3619 Fax 919-541-1898; obryan@niehs.nih.gov; <http://dir.niehs.nih.gov/dir1st/obryan.htm>.

One position available immediately to study ligand-gated nicotinic ACh and/or serotonin 5-HT₃ receptor channels in hippocampal brain slices, cultured neurons and/or clonal cell lines. The role these channels play in regulating hippocampal neuronal activity are investigated, as well as how intracellular signal transduction pathways (i.e. phosphorylation, Ca²⁺) modulate the physiological properties of these channels. Preference will be given to applicants interested in studying how these ion channels regulate synaptic transmission and plasticity in the brain. Applicants must have electrophysiological (preferably patch-clamp) experience; expertise in calcium imaging and/or molecular biological techniques would be a great asset. Contact Jerrel Yakel, 919-541-1407; Fax 919-541-1898; yakel@niehs.nih.gov <http://dir.niehs.nih.gov/dir1st/yakel.htm>.

Two positions available (one immediately; one Oct 1999) for individuals who want to study signal transduction by joining a team linking gene sequence to protein structure and function; appropriate biochemical and/or molecular experience is required to either (1) characterize and clone novel proteins which regulate metabolism and cell-signaling functions of inositol 3456-tetrakisphosphate [J.B.C (1997) 272 2285; J.Physiol. (1998) 510 661], or (2) identify and characterize the diphosphorylated inositolphosphate phosphatase members of the MutT gene family [EMBO J. (1998) 17 1710; EMBO J. 1998 17 6599-6607]; in the latter case, experience in mouse genomics would be of value. Contact Steve Shears, 919-541-0793; Fax 919-541-1898; shears@niehs.nih.gov; <http://dir.niehs.nih.gov/dir1st/shears.htm>.

All candidates must hold a Ph.D. or M.D. with no more than five years of postdoctoral experience. For prompt consideration, submit a cover letter, curriculum vitae including publication list, and the names of three people who could provide letters of reference to the principle investigator at his fax, e-mail address or the following mailing address: Laboratory of Signal Transduction, NIEHS, P.O. Box 12233, Maildrop F2-08, Research Triangle Park, North Carolina 27709.

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POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP POSITION IN HUMAN BEHAVIORAL NEUROIMAGING

A Postdoctoral Fellowship is offered in applications of advanced imaging techniques to human behavioral neuroscience. Synergistic application of multiple imaging methods is emphasized. On-site techniques include positron-emission tomography, magnetic resonance imaging (functional and anatomical), event-related electrical potentials, and transcranial magnetic stimulation. Research will primarily focus on functional mapping of language in the human brain and formal modeling of functional connectivity and of task-induced (system) circuitry. A secondary focus will be modeling the imaged activations resulting from transcranial magnetic stimulation.

One three-year position is available, to begin on or after June 1, 1999. Doctoral degree in basic neuroscience, psychology (experimental, neuro, or cognitive), or M.D. degree is required. Applicants with medical degrees must have Residency training in neurology, neurosurgery, or psychiatry.

Apply to: **Peter T. Fox, M.D., Director, Research Imaging Center, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-6240 USA. FAX: 210-567-8152. The University of Texas Health Science Center at San Antonio is an Equal Employment Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE IN MOLECULAR ONCOLOGY

Immediate opening for an NIH-funded Postdoctoral Research Associate to study members of the myc oncoprotein family. We are particularly interested in the molecular basis by which these proteins promote alterations in the cell cycle, apoptosis, and genomic instability. The applicant should be familiar with basic techniques in cell and molecular biology including mammalian tissue culture, DNA cloning and sequencing, recombinant protein expression and purification, and yeast two-hybrid assays. Experience in bioinformatics would be a plus. *U.S. citizenship or permanent residency status is also highly preferred.* Please send curriculum vitae and the names of three references to: **Edward V. Prochownik, M.D., Ph.D., Hematology/Oncology, Children's Hospital of Pittsburgh, 3705 Fifth Avenue, Pittsburgh, PA 15213. FAX: 412-692-5723; e-mail: edward_prochownik@poplar.chp.edu. Equal Opportunity Employer.**

POSTDOCTORAL POSITION available in exciting, multidisciplinary research program at Kimmel Cancer Center, Thomas Jefferson University to discover new drugs for cancer, AIDS, and immune diseases. Background in one of the following areas: organic, peptide, and medicinal chemistry, combinatorial synthesis, protein biochemistry, ligand-receptor binding, molecular and cell biology, immunology, and virology. Competitive salary/benefits. Send curriculum vitae and telephone number to: **Dr. Ziwei Huang, 802 BLSB, Kimmel Cancer Institute, Thomas Jefferson University, 233 South 10th Street, Philadelphia, PA 19107. FAX: 215-923-0881; e-mail: zhuang@nana.jci.tju.edu. Please visit our website: <http://nana.jci.tju.edu> for details of research projects. Equal Opportunity Employer.**

POSTDOCTORAL POSITION IN NEUROSCIENCE

Available immediately to study molecular effects of repeated cocaine administration. Experience in neurochemistry (receptor pharmacology) and/or behavioral assays preferred. Please send curriculum vitae with names of three references to: **Dr. Marc Abel, Department of Cell Biology and Anatomy, Finch University of Health Sciences/The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064-3095. E-mail: abelm@finchcms.edu. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION. We are searching for an individual with a strong background in molecular biology and biochemistry to study the functions of yeast TAFs in transcription and the cell cycle control (*Nature* 371:523-527; *ibid.* 383:185-188; *Cell* 90:607-614; *ibid.* 94:45-53). Send cover letter, curriculum vitae, and the names and addresses of three references to: **Dr. Joseph Reese, Department of Biochemistry and Molecular Biology, The Pennsylvania State University, University Park, PA 16802. FAX: 814-863-7024; e-mail: jcr8@psu.edu.**

POSITIONS OPEN

POSTDOCTORAL POSITION

Applications are invited from Postdoctoral Scientists to fill two positions within our groups at the W. M. Keck Institute for Cellular Visualization, Brandeis University.

The **Grigoriouff** group carries out structural investigations of ion channels, such as voltage-gated potassium, sodium, and chloride channels, primarily using high-resolution electron cryomicroscopy. The successful candidate will work on the implementation of established high-yield expression and purification of these channels and will be given further training to carry out subsequent structural work. A strong background in biochemistry and/or molecular biology of membrane proteins is desirable.

The **DeRosier** group aims to determine the structure and mechanism of the bacterial flagellum, with emphasis on the rotary motor. In a separate project, we are determining the atomic structures of the actin cytoskeleton. We use electron cryomicroscopy to obtain molecular maps of the cytoskeletal complexes. We are developing procedures for docking atomic models for the components into the molecular maps. This area represents the frontier of structural cellular biology. A third project is a high resolution study of the gas vesicle, a semicrystalline cellular organelle.

The positions are available for at least one year, starting January 1999, and may be renewed for a longer period, subject to availability of funding. Applications including a curriculum vitae and the names of two referees, and inquiries should be directed to: **Professor N. Grigoriouff or Professor D. DeRosier, Rosenstiel Research Center, Brandeis University, M5029, 415 South Street, Waltham, MA 02454. FAX: 781-736-2405; e-mail: niko@brandeis.edu or der@auriga.rose.brandeis.edu. Visit the Brandeis University website: www.bio.brandeis.edu.**

Brandeis University is an Equal Opportunity Employer.

POSTDOCTORAL POSITION HARVARD UNIVERSITY MASSACHUSETTS GENERAL HOSPITAL

A Postdoctoral position is available in the Immunobiology Laboratories. The projects involve transcription studies and biochemistry of intracellular processing pathways in human lymphoid cells in normal and diseased states. Specific areas of investigation include transcription studies of genes (e.g., NF- κ B), apoptotic pathways, and biochemistry of protein degradation.

Send curriculum vitae and the names, telephone numbers, and e-mail addresses of three references to:

**Dr. Denise Faustman
Associate Professor of Medicine
Massachusetts General Hospital-East
Immunobiology Laboratories
Building 149, 13th Street, Room 3602
Charlestown, MA 02129**

POSTDOCTORAL POSITION in endothelial stem cell biology. University of Washington. New position open now for highly motivated Molecular and Cellular Biologist in NSF-funded program integrating stem cell, endothelial cell, and molecular aspects of vascular biology with genetic and bioengineering for cardiovascular applications. For full details, send curriculum vitae and three references to: **Margaret D. Allen, M.D., Division of Cardiothoracic Surgery, Mailstop 356310, University of Washington, Seattle, WA 98195. FAX: 206-543-0325; e-mail: mdallen@u.washington.edu. UW is an Equal Opportunity Employer.**

EPSTEIN-BARR VIRUS GENE REGULATION AND PATHOGENESIS

POSTDOCTORAL POSITION available to study the role of immediate-early proteins in EBV-induced diseases and malignancy. Recent Ph.D., molecular biology experience required. Send curriculum vitae and two references to: **Shannon Kenney, M.D., Lineberger Comprehensive Cancer Center, CB#7295, University of North Carolina, Chapel Hill, NC 27599-7295.**

POSTDOCTORAL POSITION on NIH-funded project to identify cellular compartments and molecular mechanisms of adrenergic receptor internalization. Molecular biology, immunochromatography, and/or fluorescence microscopy experience desirable. Send curriculum vitae and references to: **Myron L. Toews, Ph.D., Department of Pharmacology, 986260 Nebraska Medical Center, Omaha, NE 68198-6260. E-mail: mtoews@unmc.edu. Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

NIH POSTDOCTORAL POSITION available for joint work in the Nuclear Magnetic Resonance Unit (**Richard Spencer, Chief**) and in the Laboratory of Cardiovascular Sciences (**Edward Lakatta, Chief**) of the National Institute on Aging of the NIH in Baltimore, Maryland. Initial work will center on spectroscopic studies of myocardial metabolism related to (i) congestive heart failure and (ii) β -adrenergic stimulation of the heart. Other research opportunities may be available depending on the interests and background of the successful candidate.

NMR instrumentation consists of a double-resonance Bruker ABX 1.9T/31 cm Biospec with shielded gradients, and a triple-resonance wide-bore Bruker DMX 400 Avance system with microimaging and solids capability.

A background in NMR spectroscopy or imaging is preferred, although applicants with experience in muscle and cardiac physiology and a strong desire to learn NMR techniques are also encouraged to apply. Applicants must have fewer than five years of postdoctoral experience.

Interested individuals should send or e-mail their curriculum vitae and the telephone numbers and e-mail addresses of three references to: **Dr. Richard Spencer, NMR Unit, NIH/NIH, GRC 4D-08, 5600 Nathan Shock Drive, Baltimore, MD 21224. Telephone: 410-558-8226; e-mail: spencer@helix.nih.gov; website: <http://www.grc.nih.gov/branches/lcmb/nmr/nmr.htm>.**

NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS IN REPRODUCTIVE BIOLOGY

Two NIH-supported Postdoctoral positions are available to study the cellular and molecular mechanisms that regulate stromal cell differentiation. Preference will be given to candidates with expertise in reproductive or developmental biology with emphasis on biochemical and molecular regulation of cell function. In addition, a strong background in signal transduction associated with metabolic processes is highly desirable. Submit curriculum vitae and contact information for three references to: **Dr. Asgi T. Fazleabas, Department of Obstetrics/Gynecology, M/C 808, University of Illinois at Chicago, 820 South Wood Street, Chicago, IL 60612. FAX: 312-996-4238; e-mail: asgi@uic.edu. UIC is committed to Equal Opportunity/Affirmative Action.**

POSTDOCTORAL RESEARCH POSITION available immediately to study the use of combinatorial libraries to identify ligands that bind to proteins and to envelope and non-envelope viruses. This is a joint industry/university research project to develop novel separation and detection methods for proteins and viruses, in collaboration with **Dr. Dennis Brown** of the Biochemistry Department at North Carolina State University. Doctoral degree in biochemistry, microbiology, virology, or biochemical engineering with prior experience in protein purification and characterization are desirable. Salary \$32,000 per year, position available for at least a two-year period. Send curriculum vitae and three letters of recommendation to: **Prof. Ruben G. Carbonell, Department of Chemical Engineering, North Carolina State University, Box 7905, Raleigh, NC 27695-7905. NCSU is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS MOLECULAR BASIS OF CANCER COLUMBIA UNIVERSITY

Positions available to join a research group discovering and characterizing novel genes mediating tumorigenesis, cancer progression and suppression, apoptosis, and cell differentiation. Training in molecular biology, emphasizing gene cloning, transgenic mice, protein analyses, and purification or protein-protein interactions. Send curriculum vitae and three references to: **Dr. Paul B. Fisher, Columbia University, College of Physicians and Surgeons, BB 15-1501, 630 West 168th Street, New York, NY 10032. FAX: 212-305-8177; e-mail: pbfl@columbia.edu. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION in the molecular biology of spinal cord injury and regeneration, available March 1999. Investigation of neuronal gene expression changes induced by inhibitors of growth cone migration. See website: <http://physiology.uky.edu/genehunt>. To apply, send curriculum vitae and names of references to: **T. S. McClintock, Ph.D., Department of Physiology, University of Kentucky, 800 Rose Street, Lexington, KY 40536-0298. E-mail: mcclint@pop.uky.edu.**



**ASSISTANT PROFESSOR
OF SURGERY
POSTDOCTORAL FELLOW**

The Transplantation Program at the University of Maryland is seeking well-qualified applicants for positions at the Assistant Professor level as well as Post-doctoral Fellow. The transplant research program is devoted to the study of tolerance/immunity to allografts at the molecular, cellular, and pre-clinical levels, as well as islet cell immunology and transplantation. Applicants must have a M.D., Ph.D. or Ph.D. degree. Applicants at the Assistant Professor level must show evidence of the capacity to establish an independently funded research program in the field of transplant immunology.

If interested, please send a current CV to: **Stephen T. Bartlett, M.D., Professor and Chief, Transplantation Program, University of Maryland, 29 S. Greene St., Suite 200, Baltimore, MD 21201. AA/ADA/EOE. Minority and women applicants are encouraged to apply.**

Coulter Pharmaceutical

is a growing biotechnology company committed to the development of novel therapies for the treatment of people with cancer. Our most advanced product, a monoclonal antibody conjugated with a radioisotope, is in late stage development to treat non-Hodgkin's lymphoma. Our second program is focused on a tumor activated peptide (TAP) pro-drug platform. Our continued growth has created an excellent opportunity for a handful of dedicated team-players to join us.

Scientist/Senior Scientist - Pharmacokinetics
Plan/execute PK/PD studies at CROs in support of compound screening, nonclinical, and clinical safety studies. Requires Ph.D. in pharmacokinetics, pharmacology or related discipline; 2 years postdoc experience in pharma/biotech industry; ability to integrate nonclinical & clinical PK/PD data into well-written reports for IND, BLA or NDA submissions. Experience with conjugated antibodies, protein or peptide therapeutics is desirable. Must be able to contribute to metabolism, ADME, in vivo efficacy model study design, and routine regulatory drug safety studies. Familiarity with the contract testing industry is highly desired. (Job # MC1)

In addition to competitive salaries & benefits, Coulter provides a stimulating, highly collaborative research setting, a pathway for professional growth, and a rare opportunity to make a difference in the lives of people with cancer. We will relocate to South San Francisco in March 1999. For immediate consideration please send your resume to: **Coulter Pharmaceutical HR Dept., (Attn: Job # MC1), 550 California Avenue, Suite 200, Palo Alto, CA 94306; fax: (650) 553-2028; e-mail: jobs@coulterpharm.com. EOE.**



Founded 1905

**FACULTY APPOINTMENTS
NATIONAL UNIVERSITY
OF SINGAPORE
DEPARTMENT OF
COMPUTATIONAL SCIENCE
<http://www.cz3.nus.edu.sg/>**

The Department of Computational Science offers interdisciplinary programmes in Computational Chemistry, Computational Mathematics, Computational Physics and Computational Biology. There is currently a small core of faculty members and several postdoctoral research fellows in the Department. NUS is in the same league as the 88 top "Research 1 Universities" in USA (Carnegie Classification), and faculty can expect at least the same salary levels and research support as these top universities.

Major research areas in the Department include computational statistical and condensed matter physics, nonlinear dynamics and complex systems, scientific visualization, neural computing, computational quantum chemistry and molecular modelling, computational fluid dynamics, geometric modelling, wavelet analysis and applications, signal and image processing. There are strong links between the Department and other national research centres. Ties with other academic institutions and research centres overseas are maintained and the Department is fast gaining international recognition.

The Department is well-equipped with state-of-the-art workstation clusters and has access to supercomputers. The Department seeks outstanding individuals with strong commitment to teaching and research.

Applications are invited for **faculty appointments** at all levels in any of the following areas:

- Complex Systems
- Computational Biology
- Computational Condensed Matter and Statistical Physics
- Computational Fluid Dynamics
- Geometric Modelling
- Neural Computing
- Scientific Parallel Computations
- Computational Chemistry
- Scientific Visualization
- Symbolic Computing
- Computational Nanoscience

Visting appointments will also be considered.

Gross annual emoluments range as follows:

Assistant Professor	S\$ 57,600 – 98,400
Associate Professor	S\$ 82,680 – 172,440
Professor	S\$145,200 – 204,840

(US\$1.00 = S\$1.66 approximately)

Please arrange to send a curriculum vitae, a brief research plan, and three letters of recommendation to:

**Faculty Search Committee
Department of Computational Science
National University of Singapore
10 Kent Ridge Crescent
Singapore 119260
Fax: (65)774-6756
Email: cscsec@nus.edu.sg**

Applications should be submitted by 31 March 1999.

Only shortlisted candidates will be notified.

For more details and application form, visit us on the internet:
<http://www.nus.sg/NUSinfo/Appoint/sc-dcs.htm>.

POSITIONS OPEN

POSTDOCTORAL POSITION CELLULAR IMMUNOLOGY

Department of Molecular Genetics and Biochemistry at University of Pittsburgh invites applications for a Research Associate with expertise in cellular immunology. Individual will be responsible for the characterization of cellular immune responses to SIV in the mucosa of rhesus monkeys. Candidate will participate in a multidisciplinary research program involving SIV pathogenesis and vaccine development within the University of Pittsburgh Center for AIDS Research. Positions are available at both junior and senior-level positions. Candidates must have a Ph.D. or equivalent degree. Please send curriculum vitae and three letters of reference to:

Dr. Michael Murphy-Corb
Professor, Department of Molecular Genetics
and Biochemistry
Director, Primate Facility for Infectious
Disease Research
University of Pittsburgh School of Medicine
E1240 Biomedical Science Tower
Pittsburgh, PA 15261
Telephone: 412-648-9750
FAX: 412-624-8997

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

POSTDOCTORAL POSITION. Stanford University, Division of Hematology. Funded position for one Postdoctoral Fellow with a general interest in the biochemistry and structure-functional analysis of coagulation proteins is available immediately. Candidates should have a relevant Ph.D. and/or M.D., and be well-trained in enzymology, protein chemistry, coagulation assays, and molecular biology. Experience with plasmin resonance spectroscopy (BIAcore) would be helpful. Please send a curriculum vitae, cover letter with research interests, no more than two reprints from refereed journals, and names of three references to: **Lawrence L. K. Leung, M.D.**, Chief, Division of Hematology, Room S-161, Stanford University School of Medicine, Stanford, CA 94305-5112. *Stanford University is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION available to study the role of glycosylation in protein and cell recognition. A unique sulfated carbohydrate structure, recognized by a highly specific receptor, plays critical roles in reproduction, development, and the immune response. A combination of biochemical analysis, mutagenesis, and genetic manipulation of the cloned transferases and receptor will be used to examine the biology of this unique form of glycosylation *in vivo* and *in vitro*. Send curriculum vitae and three references to: **Jacques U. Baenziger, M.D.**, Ph.D., Washington University School of Medicine, Department of Pathology, Box 8118, St. Louis, MO 63110. FAX: 314-362-8888; e-mail: baenziger@pathology.wustl.edu.

POSTDOCTORAL RESEARCH position is available immediately to study the mode of action of antipsychotic drugs and substances of abuse. Applicants should hold Ph.D. or equivalent with strong neuroscience background. Experience with intracellular and/or patch-clamp recordings in *in vitro* brain slice preparations is desirable. Send curriculum vitae and three references to: **Rex Y. Wang, Ph.D.**, Department of Psychiatry, SUNY at Stony Brook, Stony Brook, NY 11794-8790. FAX: 516-632-9433; e-mail: rex.wang@sunysb.edu.

POSTDOCTORAL POSITION available immediately at Columbia University to study calcium channel targeting, localization, and regulation. Highly motivated Ph.D.'s with strong experience in mouse genetics and biochemistry are encouraged to apply. Send curriculum vitae and the names of three references to: **Dr. Jian Yang, Department of Biological Sciences, Columbia University, MC2462, 1212 Amsterdam Avenue, New York, NY 10027.** E-mail: jyl160@columbia.edu. *We take Affirmative Action toward Equal Employment Opportunity.*

POSTDOCTORAL POSITION to investigate molecular signaling mechanisms of axon guidance and synaptic plasticity by adhesion molecules (NCAM, L1, integrins) using molecular biology, biochemistry, knockout mice, microscopy/image analysis, and cell culture. Send curriculum vitae to: **Patricia Maness, Ph.D.**, Department of Biochemistry, University of North Carolina, CB#7260, Chapel Hill, NC 27599. E-mail: srclab@med.unc.edu.

POSITIONS OPEN



POSTDOCTORAL POSITIONS

Research areas include protein-prosthetic group interactions; protein design and engineering; protein dynamics and thermodynamics; molecular recognition in calmodulin-mediated signal transduction; high-pressure NMR; NMR relaxation phenomena; novel NMR approaches to large and membrane proteins.

Required qualifications include Ph.D. or equivalent in biophysics, biochemistry, chemistry, or physics and extensive experience in NMR spectroscopy, molecular biology, or protein chemistry.

Send résumé and two letters of recommendation to:
Professor A. Joshua Wand
University of Pennsylvania School of Medicine
Department of Biochemistry and Biophysics
Philadelphia, PA 19104-6059
E-mail: wand@mail.med.upenn.edu

Mayo Clinic. POSTDOCTORAL POSITIONS in prostate cancer. Positions are available to study the molecular mechanism by which androgen-regulated genes are expressed in a prostate-specific fashion. Studies also include novel gene discovery and function dissection for obtaining insight into the development and progression of prostate cancer using molecular and cell biology, transgenic and proteomic approaches. A Doctoral-level degree is required with a strong background in molecular and cell biologies. Attractive salary and benefits apply. Qualified applicants should send a curriculum vitae, statement of research interests and experience, and names of three references to: **Dr. Charles Young, Urology Research, Guggenheim 1742B, Mayo Clinic, 200 1st Street S.W., Rochester, MN 55905.** *Mayo Foundation is an Affirmative Action/Equal Opportunity Employer and Educator.*

A POSTDOCTORAL POSITION is available to study several proteins of pathogens that cause malaria, hepatitis, and other diseases and/or several proteins of the immune system using biochemical and biophysical methods. This is an opportunity for someone with experience in biochemistry and/or molecular biology to crystallize a protein and to learn X-ray crystallography. Salary from \$27,500 to 38,000. Please send a curriculum vitae and the names of three references to: **David N. Garboczi, Ph.D.**, National Institute of Allergy and Infectious Diseases, NIH, 12441 Parklawn Drive, Room 110, Rockville, MD 20852. Telephone: 301-496-4773; FAX: 301-402-0284; e-mail: garboczi@coral.niaid.nih.gov. *NIH is an Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIP IN DERMATOLOGY

The Division of Dermatology at the Albany Medical College, Albany, New York is seeking a Postdoctoral Fellowship (M.D., Ph.D., or M.D.-Ph.D.) to perform research in bacterial pathogenesis. This project uses both primary tissue-cultured cells and artificial skin system models to study the interactions of *Staphylococcus aureus* and skin. Experience in the fields of microbiology, cell biology, immunology, and/or molecular biology is preferred. Send résumé to the attention of: **George Murakawa, M.D., Ph.D.**, 47 New Scotland Avenue, Mail Code 7, Albany, NY 12208. FAX: 518-262-6251.

POSTDOCTORAL POSITION AUTOIMMUNITY

Study autoimmune T cells of human lupus: peptide epitopes, tolerance (*J. Clin. Invest.* 97:2063, 1996; *J. Exp. Med.* 187:367, 1998). Expertise in cellular and molecular immunology required. Send résumé to: **Dr. Syamal K. Datta, Arthritis and Immunology, Ward 3-315, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611.** E-mail: skd257@nwu.edu.

POSTDOCTORAL POSITION IN CIRCADIAN RHYTHM BIOLOGY

Available spring 1999 for anticipated NIH-funded research into the neural basis of mammalian SCN circadian clock function. A strong background in neurosciences essential. Experience in biological rhythms preferred. Send curriculum vitae and names and telephone numbers of three references to: **Dr. David Glass, Ph.D.**, Professor, Biological Sciences, Kent State University, Kent, OH 44242. E-mail: jglass@kentvm.kent.edu.

POSITIONS OPEN

POSTDOCTORAL POSITIONS

Several NIH-funded Postdoctoral positions are immediately available at University of Texas M. D. Anderson Cancer Center, Houston, Texas. Research projects include (1) modulation of chemotherapy-induced apoptosis by growth factor-mediated signal transduction pathway; (2) regulation of cell cycle by EGF receptor family protein-mediated signal transduction pathway; and (3) regulatory interaction amongst EGF receptor family members in breast, ovarian, and prostate cancers. Candidates should have a Ph.D., M.D., or equivalent degree with a background in signal transduction, apoptosis, or cell cycle regulation. Experience in molecular biology, biochemistry, or nude mice research is desirable. For immediate consideration, send curriculum vitae, brief research experience summary, and contact information for three references to:

Zhen Fan, M.D. and John Mendelsohn, M.D.
The University of Texas
M. D. Anderson Cancer Center
1515 Holcombe Boulevard, Box 36
Houston, TX 77030-4009 USA
FAX: 713-745-3562
E-mail: zfan@notes.mdacc.tmc.edu

Females and minorities are strongly encouraged to apply. The University of Texas M. D. Anderson Cancer Center is an Equal Opportunity Employer and a smoke-free environment.

POSTDOCTORAL POSITION UNIVERSITY OF PENNSYLVANIA SCHOOL OF VETERINARY MEDICINE

A Postdoctoral position in a collaborative study in the Departments of Clinical Studies (**Dr. Ray Sweeney**) and Pathobiology (**Dr. Phil Scott**) is available beginning March 1, 1999. The successful candidate's efforts will focus on the bovine immune response to *Mycobacterium paratuberculosis*, with an emphasis on vaccine development. Candidates with a strong background in immunology are encouraged to contact, with curriculum vitae and names of three references: **Dr. Raymond W. Sweeney, Department of Clinical Studies—New Bolton Center, 382 West Street Road, Kennett Square, PA 19348 USA.** FAX: 610-444-4724.

POSTDOCTORAL POSITION available to study the role of oxygen free radicals as second messengers and the oxidant-dependent promotion of cell growth in lung epithelial cells. The candidate should have a Ph.D. in biochemistry, cell biology, or a related discipline. Experience in cell culture and molecular biology are strongly preferred. Send curriculum vitae, names of three references, and a brief statement of research interests to: **Beatriz Gonzalez-Flecha, Ph.D.**, Physiology Program, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115. FAX: 617-432-4528; e-mail: bgonzalez@hsph.harvard.edu. *Harvard University is committed to increasing the number of women and minorities at the University and encourages applications from such candidates.*

Two **POSTDOCTORAL POSITIONS** are available to characterize novel genes involved in human liver development and to study the role of HNF-1 homeoproteins in the circadian rhythmicity of carbohydrate-responsive genes. Significant experience with molecular and cellular techniques is desirable. Send curriculum vitae and the names of three references to: **Dr. David B. Rhoads, Pediatric Endocrine Unit, Massachusetts General Hospital, 55 Fruit Street—BHX-410, Boston, MA 02114-2696.** *Equal Opportunity Employer/Affirmative Action.*

POSTDOCTORAL POSITION available to study long-term molecular consequences of cocaine and alcohol use in the rat brain. Experience in molecular biology desired. *Applicants must have U.S. citizenship or permanent residency for this NIH training grant position.* Send a curriculum vitae and names of three references to: **Scott A. Mackler, M.D., Ph.D.**, Department of Medicine, University of Pennsylvania School of Medicine, Philadelphia, PA 19104. FAX: 215-823-5171; e-mail: smackler@mail.med.upenn.edu.

POSTDOCTORAL POSITION available May 1, 1999, to study intracellular pathways, and to identify genes that regulate STAT protein phosphorylation in lymphocytes. A background in molecular biology, biochemistry, or intracellular signaling is preferred. Send curriculum vitae and the names of three references to: **Dr. Thomas L. Rothstein, Room E-501, Boston Medical Center, 88 East Newton Street, Boston, MA 02118.** FAX: 617-638-7065.

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP

Cedar-Sinai Medical Center's Department of Surgery is recruiting for a Ph.D. or M.D.-Ph.D. scientist with special training in cell and molecular biology. Cedars-Sinai is affiliated with UCLA School of Medicine. Applications will be engaged in full-time investigation research to study the biology of neuroendocrine tumors and to develop novel experimental strategies to treat metastatic tumors using gene and receptor-mediated drug therapy. Applications should include a curriculum vitae, statement of research accomplishments, and names of three references. Respond to: **Rebecca Chandler, Director for Academic Services/Human Resources**, 8723 Alden Drive, SSB130, Los Angeles, CA 90048. FAX: 310-358-9243; e-mail: chandler@cshc.org.

Equal Opportunity Employer/Affirmative Action. Women and minority applicants are encouraged to apply.

POSTDOCTORAL POSITION available to study signal transduction mechanisms involved in stress response. We are interested in molecular mechanisms of activation of the NF- κ B and c-JUN N-terminal kinase (JNK) pathways (see: Lee et al., *Cell* 88:213, 1997; Lee et al., *PNAS* 94:9319, 1998). Experience in molecular biology required. Please forward a curriculum vitae and the names of three references to: **Dr. Frank Lee, Department of Pathology and Laboratory Medicine, University of Pennsylvania School of Medicine**, 218 John Morgan Building, Philadelphia, PA 19104. FAX: 215-573-2272; e-mail: franklee@mail.med.upenn.edu. *Equal Opportunity Employer.*

GRANTS

EXTERNAL PEER REVIEWERS are sought for grant proposals submitted to Summa Health System Foundation. Honoraria of \$200 per review ("pink sheet" style). Areas of research described at **website**: <http://www.summa-research.org>. E-mail curriculum vitae to e-mail: woods@summa-health.org.

MEETINGS



**DON'T MISS THE
6th INTERNATIONAL MEETING ON
BIOLOGY OF NITRIC OXIDE
in Stockholm 5-8 September 1999**

Website: <http://www.ki.se/org/nitric-oxide-99>.

For program and registration information, contact: **General Secretariat, Stockholm Convention Bureau, 6th International Meeting on the Biology of Nitric Oxide**, P.O. Box 6911, S-102 39 Stockholm, Sweden. Telephone: +46-8-736-15-00; FAX: +46-8-34-84-41; e-mail: stocon@stocon.se.

GLOBAL OPPORTUNITIES

The Center for Biological Microchips at the Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, has several **POSTDOCTORAL POSITIONS** that are immediately available. The program, directed by **Dr. Andrei Mirzabekov**, is aimed at developing oligonucleotide, DNA, and protein microarrays for applications in biology, medicine, and biotechnology, in collaboration with the Argonne National Laboratory (USA). Postdoctoral candidates must have a strong background in molecular biology, microbiology, chemistry of nucleic acids and/or proteins, fluorescence detection, robotics, or computer science. Applicants are expected to have intensive collaboration with other scientists in the interdisciplinary program and to work part-time at Argonne National Laboratory. To apply, please send curriculum vitae and the names and addresses of three references to: **E. I. Novikova, Engelhardt Institute of Molecular Biology, Vavilova 32, Moscow 117984 Russia**. FAX: 7095-135-1405; e-mail: lnovikova@genome.ciml.relatn.ru.

EUROPEAN OPPORTUNITIES

Two **POSTDOCTORAL POSITIONS** are available immediately in visuo-vestibulo-oculomotor neurobiology and neuroanatomy. Basic research involves transneuronal labeling with attenuated virus tracers in monkey vestibulo-oculomotor circuits. Each position is funded for two years by the Biotechnology Programme of the European Union. Applicants should have a background in neurobiology and/or neuroanatomy, preferably of primate brainstem vestibular-cerebellar systems and/or cortical visual processing and eye movement control centers. Research and data analysis will be conducted at the CNRS campus at Gif-sur-Yvette (near Paris), and at the Collège de France in Paris. Send curriculum vitae and a synopsis of research interests to: **Werner M. Graf, CNRS-LPPA, Collège de France, 11 place Marcelin Berthelot, 75231 Paris Cedex 05 France**. FAX: +33-1-44-27-13-82; Telephone: +33-1-44-27-16-30; e-mail: wg@ccr.jussieu.fr. Or to: **Gabriella Ugolini, Laboratoire Génétique des Virus, CNRS, 91118 Gif-sur-Yvette, France**. FAX: +33-1-69-82-43-08; Telephone: +33-1-69-82-37-69; e-mail: gabriella.ugolini@gv.cnrs-gif.fr.

PROFESSOR OF MOLECULAR BIOLOGY UNIVERSITY OF GENEVA Department of Molecular Biology

Full-time appointment at the level of **FULL PROFESSOR** or **ASSOCIATE PROFESSOR**, starting date: 1 October 1999.

The successful candidate is expected to lead a strong research program in molecular and cellular biology and to teach at graduate and undergraduate levels. Teaching in French is required but a period of adjustment can be granted.

Applications should be sent by March 31, 1999, to: **Secrétariat de la Faculté des Sciences, Université de Genève, 30, Quai Ernest-Ansermet, CH-1211 Geneva 4, Switzerland** where inquiries can be made.

Qualified women are encouraged to apply.

Am Lehrstuhl für Biochemie der Universität Erlangen-Nürnberg ist eine **ASSISTENTENSTELLE** zu besetzen. Der/die Stelleninhaber/in soll eine selbständige Nachwuchsgruppe mit eigenständiger Forschungsthematik innerhalb des Lehrstuhls Biochemie etablieren. Deren Arbeitsgebiet soll die Forschungsthematik des Lehrstuhls (website: www.biologie.uni-erlangen.de/bc/forschung.html) ergänzen. Eine Mitarbeit im SFB 473 (website: <http://www.biologie.uni-erlangen.de/mibi/sfb/index.html>) ist erwünscht. Bewerbungen mit Lebenslauf, Schriftenverzeichnis und Darlegung der Forschungs-Ziele sind bis spätestens 26 Februar 1999 zu richten an: **Prof. Dr. E. Schweizer, Lehrstuhl für Biochemie der Universität Erlangen-Nürnberg, Staudtstrasse 5, 91058 Erlangen**. Telephone: 09131-8528255; FAX: 09131-8528254; e-mail: eschweiz@biologie.uni-erlangen.de.

POSTDOCTORAL POSITION available immediately in visuo-vestibulo-oculomotor neurobiology. Basic research involves electrophysiological recordings in monkey parietal cortex during eye movement tasks. The position is funded for one year by the Human Frontier Science Program. Applicants should have a background in neurobiology and experience in single unit recording techniques, or modeling. Computer and programming expertise are desirable. Send curriculum vitae and a synopsis of research interests to: **Werner M. Graf, CNRS-LPPA, Collège de France, 11 place Marcelin Berthelot, 75231 Paris Cedex 05 France**. FAX: +33-1-44-27-13-82; e-mail: wg@ccr.jussieu.fr.

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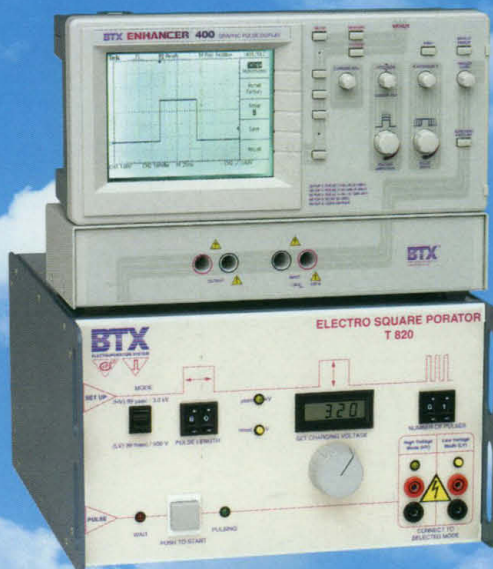
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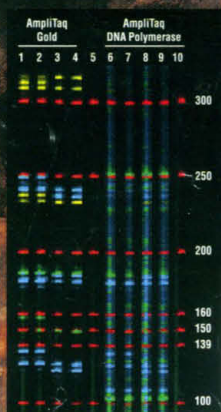
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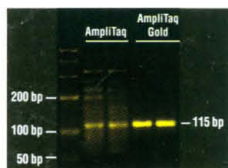
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