

RFP

Eradicate pathogens in human plasma

SCOPE:

Innovative methods that:

- will eradicate non-enveloped viruses in whole human plasma
- are safe, effective and practical; and
- range from initial technology assessment to advanced methods development.

It is essential the applicant be in a position to convey to the Consortium the rights in resulting research.

The Consortium for Plasma Science, LLC, requests proposals for the development of a universal approach to inactivate or remove pathogens from human blood plasma without adversely affecting the functionality of the plasma or its derivatives.

PROCESS:

Proposals may be submitted at any time, and will be evaluated promptly on technical merit and the business case.

To optimize proposal design and success, the first step in the application process is communication with the Consortium Executive Director about non-confidential aspects of the proposal.

BUDGET:

Budget considerations should reflect the intensity of the research program and the anticipated outcomes. Research programs generally will be funded for only one year, with renewal possible upon evaluation of progress to plan and potential for reaching agreed upon milestones.

SOURCE:

The Consortium for Plasma Science, LLC, is a collaborative effort of five major blood fractionation companies: Alpha Therapeutic Corporation; Baxter Healthcare Corporation; Bayer Corporation; Centeon, LLC; and NABI. The Consortium hopes its efforts will stimulate development of new approaches to solving this important problem, ultimately accelerating the emergence of a successful technology.

CONTACT:

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Executive Director

5925 Carnegie Blvd., Suite 500

Charlotte, NC 28209 U.S.A.

Phone (704) 571-4070, Fax (704) 571-4071

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Consortium for Plasma Science, LLC

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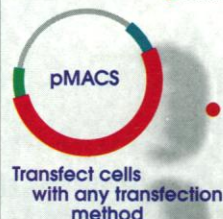
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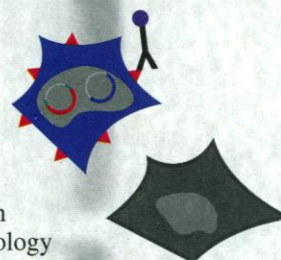
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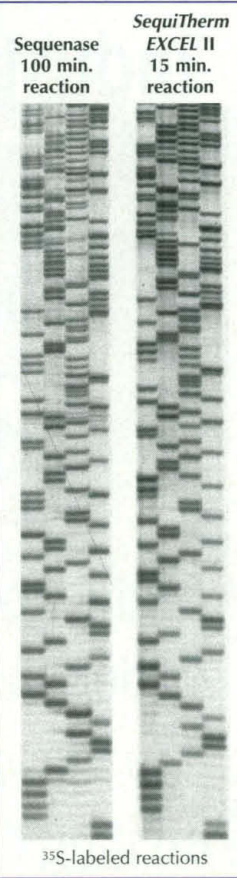
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Low-Light Camera

The Cool-Tool Cam is a cooled, charge-coupled device camera designed for demanding low-light chemiluminescent and fluorescent applications as well as traditional gel documentation. The camera makes use of Peltier cooling to decrease dark current noise that accumulates



during long integration times. **Lighttools Research.** For information call 760-632-0677 or circle 141 on the Reader Service Card.

Messenger RNA from Paraffin-Embedded Tissues

The mRNA DIRECT kit provides a simple, 15-minute procedure for the isolation of mRNA for use as template for reverse-transcriptase polymerase chain reaction. The kit has been tested successfully for direct isolation and detection of mRNA from 10-year-old paraffin-embedded lung tissue samples from postmortem biopsies. This ability provides an opportunity for studying and resolving processes of unknown etiology after extended periods with the benefit of recent advances in knowledge. **Dynal.** For information call 800-638-9416 or circle 142 on the Reader Service Card.

Gene Frame System

The Gene Frame system is a gas-tight sealing product for improving reliability of in situ hybridizations and in situ amplification. The frame is placed around the section on the slide, the reagents are pipetted onto the section, and the frame and cover are then pressed together to provide a gas-tight seal that prevents reagent evaporation. The system can withstand temperatures up to 97°C and can be autoclaved or sterilized by ultraviolet radiation. The adhesives on either side of the frame are of differing strengths. The side that adheres to the glass slide has an easy release adhesive while the side facing the cover slip forms a stronger bond. This disparity of adhesive strengths means that when

the cover slip is removed, the frame is removed from the slide simultaneously, leaving no sticky residue. The system is available with three chamber sizes: 25 μ l, 65 μ l, or 125 μ l. **Vector Laboratories.** For information call 415-697-3600 or circle 143 on the Reader Service Card.

Molecular Visualization Software

WebLab Viewer Plus brings high-quality molecular visualization and analysis to the personal computer. The software helps the user understand chemical structures, communicate molecular data, and generate dynamic reports, papers, and presentations. Features include tools to sketch molecules and optimize their geometry; import and export chemical structure files; and annotate, animate, and display. The software can represent molecules, crystal cells, and protein structures and is available for personal computers and Silicon Graphics workstations. **Molecular Simulations.** For information call 619-458-9990 or circle 144 on the Reader Service Card.

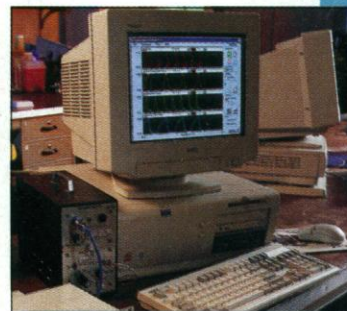
Temperature Data Acquisition Card

With the new THERMES (Thermometry Expansion Slot) board, users can connect thermocouples to a personal computer via a simple-to-install interface card. The system has 1 to 16 channels, is self-calibrating, and maintains 0.1°C stability and clinical accuracy when used with the manufacturer's Type T thermocouples. The temperature range is the full range of the thermocouple in use and up to 16 measurements per second are possible. The interface board makes use of standard Windows controls and features help screens and pull-down menus. Data can be exported to other data acquisition and graphics packages. **Physitemp Instruments.** For information call 201-779-5577 or circle 145 on the Reader Service Card.

Biotin Capture Membrane

The SAM² Biotin Capture Membrane is a high-density streptavidin-coated matrix designed to provide high-specificity and high-affinity capture of biotinylated molecules, such as proteins and nucleic acids, regardless of their sequence. The membrane has a quantitative binding capacity of 1.3 nmol of biotinylated molecules per square centimeter. The membrane has been optimized for low nonspecific binding, resulting in high signal-to-noise ratios. The membrane is

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available as a solid membrane sheet measuring 7.6 by 10.9 cm and in a 96-well plate format. **Promega.** For information call 608-277-2540 or circle 146 on the Reader Service Card.

RNA from Blood

Because blood is so easily accessible, many investigators would like to use it as an RNA source in reverse transcriptase polymerase chain reaction (RT-PCR). But blood's unique histology and biochemistry require special handling that makes the isolation of intact RNA difficult. A new RNAqueous Blood Module, when used with the RNAqueous Kit, allows users to prepare RT-PCR templates from small (300 to 400 µl) blood samples. **Ambion.** For information call 800-888-8804 or circle 147 on the Reader Service Card.



bacteria in a mixed population of bacterial types. The kit makes use of two stains to produce green staining of live bacteria and red staining of dead bacteria. The ratio of green to red fluorescence intensity provides a quantitative index of bacterial viability. **Turner Designs.** For information call 408-749-0994 or circle 148 on the Reader Service Card.

elements at multiple wavelengths in less than a minute, more than 6000 wavelengths with a minimum of two to four selected ICP emission wavelengths for each element, simultaneous measurement of spectral background and the analyte line, two large doors for easy access to the sample compartment, a quick-change torch module, and a footprint of only 1 m². **Perkin-Elmer.** For information call 800-762-4000 or circle 149 on the Reader Service Card.



Centrifugal Filter Devices for Protein Concentration and Purification describes a full range of these devices. *Membrane Devices for Sterile Filtration* displays a full range of syringe, pressure, and vacuum-driven devices that incorporate a wide range of membrane types, pore sizes, housing materials, housing configurations, and volume capacities. **Millipore.** For information call 617-275-9200 or circle 150 on the Reader Service Card.

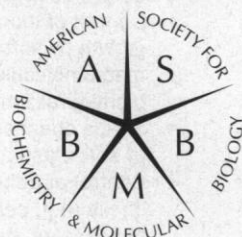
Bacterial Viability Assay

The Turner Designs TD-700 Laboratory Fluorometer combines with Molecular Probes' LIVE/DEAD BacLight Bacterial Viability Kit to provide a novel two-color fluorescence assay that conveniently, rapidly, and quantitatively distinguishes live bacteria from dead

Literature

The Optima 3000 Family of Inductively Coupled Plasma-Optical Emission Spectrometers (ICP-OES) discusses how the performance and design of these systems are based directly on customer input about the ideal ICP-OES instrument. Features of these instruments include the ability to measure more than 70

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AGING, BIOLOGY OF

IL CIOCCO
BARGA, ITALY
MAY 10 - 15, 1998
Tom Kirkwood, Chair
Michal Jazwinski, Vice-Chair

- Integrative mechanisms of aging: Keynote Lectures
- Evolution and Aging
- Genetics I - Transgenics and Mutants
- Cells to Systems I
- Cells to Systems II
- Integrative Systems
- Business Meeting/ Special Lecture
- Genetics II - Longevity and Age-Related Diseases
- 'Simple' Eukaryote Models

ANGIOTENSIN

HARBORTOWN
VENTURA, CA
FEBRUARY 15 - 20, 1998
Frederick Mendelsohn, Chair
Tomas Unger, Vice-Chair

- AT1 Receptors - Structure and Function
- AT4 Receptors
- Signalling of AT1 Receptors
- Genetics of Hypertension
- Vascular Development - Differentiation & Remodeling
- Transcriptional Regulation of RAS Genes
- Salt Sensitive Hypertension
- AT2 Receptor Function and Signalling

CAROTENOIDS

DOUBLETREE HOTEL
VENTURA, CA
JANUARY 25 - 30, 1998
John Erdman, Chair
Helmut Sies, Vice-Chair

- Chemistry, characterization, and manufacturing
- Absorption, transport, tissue distribution, and metabolism of carotenoids
- Carotenoids in non-mammalian and non-plant systems
- Photosynthetic and model systems: Structure and Photochemistry
- Carotenoid biosynthesis and the xanthophyll cycle
- Biological effects of carotenoids
- Anti- and Pro-oxidation
- Carotenoids and chronic disease risk
- Keynote Lecture

CHEMICAL OCEANOGRAPHY

IL CIOCCO
BARGA, ITALY
MAY 3 - 8, 1998
Francois Morel, Chair

- Dynamics of Ocean Tracers
- What Controls the Concentration of Organic Matter in the Sea?
- Organic Interactions with Trace Species
- Carbon & Nitrogen Isotope Fractionation in Marine Biological Systems?

- Enzymes in the Oceans: Marine Bioinorganic Chemistry.
- Gas Hydrates in Sea Water
- Consumption & Production of Trace Gases in the Oceans

COLLOIDAL, MACROMOLECULAR & POLYELECTROLYTE SOLUTIONS

HARBORTOWN
VENTURA, CA
FEBRUARY 8 - 13, 1998
Timothy Lodge, Chair
Eric Amis, Vice-Chair

- Phase Transitions I - Copolymers
- Dynamics I - Polyelectrolytes
- Dynamics II - Cells
- Structure and Interactions I - Complexes
- Phase Transitions II - Chains and Gels
- Structure and Interactions II - Colloids
- Phase Transitions III - Colloids
- Dynamics III - Colloids
- Phase Transitions IV - Biopolymers
- Dynamics IV - Polymer Interfaces
- Structure and Interactions III - Membranes
- Structure and Interactions IV - Polyelectrolytes

COMPLEX FLUIDS

IL CIOCCO
BARGA, ITALY
MAY 3 - 8, 1998
Erich Sackmann, Chair
T. Witten, Vice-Chair

- Wetting and dewetting processes and regulation by macromolecules and the deformability of interfaces
- Control of inorganic material growth by soft surfaces and macromolecules (e.g. during biomineralization)
- Shape changes and motions of soft elastic shells
- Control of adhesion of soft shells (e.g. cells) by specific nanoscales, forces, and universal forces or macromolecules (e.g. during morphogenesis)
- Ordered phases of complex aggregates (e.g. emulsions and bacteria)

COMPOSITES

DOUBLETREE HOTEL
VENTURA, CA
JANUARY 4 - 9, 1998
John Nairn, Chair
Richard S. Parnas, Vice-Chair

- Matrix Resins
- Fibers And Interfaces
- Damage Mechanics
- Durability And Aging
- Delamination
- Applications
- Hygrothermal Effects

- Processing
- Experimental Mechanics And Materials

DRUG CARRIERS IN MEDICINE & BIOLOGY

HOLIDAY INN
VENTURA, CA
FEBRUARY 22 - 27, 1998
Phil Thorpe & Ruth Duncan,
Co-Chairs
Pamela Trail & Lee Leserman,
Co-Vice-Chairs

- Gene and Oligonucleotide Delivery
- Biological Barriers
- ADEPT and VDEPT
- Polymers for Targeting and Controlled Release
- Liposomes and Self Assembling Systems
- Oral Delivery
- Antibody and Protein Conjugates
- Novel Technologies
- Clinical Developments

ELECTROCHEMISTRY

DOUBLETREE HOTEL
VENTURA, CA
JANUARY 18 - 23, 1998
Jeanne Pemberton, Chair
James McIntyre, Vice-Chair

- Materials 1
- Biology 1
- Materials 2
- Materials 3
- Biology 2
- Materials 4
- OPEN SESSION
- Biology 3
- Materials 5

FRACTALS

IL CIOCCO
BARGA, ITALY
MAY 10 - 15, 1998
Jens Feder, Chair
Richard Voss, Vice-Chair

- Corrosion
- Economics and Finance
- Fractal antennas
- Fractals in Biology and Ecosystems
- Fractures
- Galaxy Distributions
- Geosciences
- Hydrodynamics
- Multi-fractals
- Novel Applications of Fractals
- Pattern formation and growth
- Self-Organized Criticality

GLYCOLIPID & SPHINGOLIPID BIOLOGY

HARBORTOWN
VENTURA, CA
JANUARY 11 - 16, 1998
Sarah Spiegel, Chair
Guido Tettamanti, Vice-Chair

- Membrane Dynamics and Organization of Glyco (sphingo)lipids.
- Trafficking, Transport, Sorting, and Subcellular Localization of
- Enzymes, Cofactors and Genes Controlling Glyco (sphingo)lipid Metabolism.
- Gene Targeting Approaches to Glyco(sphingo)lipid Biology.
- Medical and immunotherapeutic Aspects of Glyco (sphingo)lipids.
- Sphingolipids Metabolites: Regulation of Cell Growth, Stress and Apoptosis.
- Sphingolipid Metabolism in Yeast and Mammalian Cells.
- Transmembrane Signaling I: Sphingolipids Metabolites.
- Glycolipid Signaling, Recognition and Adhesion.

GRADUATE RESEARCH SEMINAR: BIOINORGANIC CHEMISTRY (3 DAY)

HARBORTOWN
VENTURA, CA
JANUARY 23 - 25, 1998
Shana Kelley & Carol Gorst,
Co-Chairs

- Metalloprotein structure/function
- Biological electron transfer
- Metalloprotein folding
- Model systems for metalloprotein active sites
- Metals in gene regulation or drug therapy
- Metal-nucleic acid interactions

INNOVATIONS IN COLLEGE CHEMISTRY TEACHING **

HOLIDAY INN
VENTURA, CA
JANUARY 4 - 8, 1998
Stanley Pine, Chair
Barbara Sawrey, Vice-Chair

- Views from the top.
- Sharing the views.
- Where are the students coming from.
- What have we learned about learning.
- The teaching-learning experience.

- Focus on technology.
- Comprehensive reform:
- Mathematical Sciences throughout the curriculum.
- Systemic changes in undergraduate chemistry.
- Workshops and comprehensive reform, hands on experiences.
- The Chemistry - Biology connection.
- Discipline innovation.
- The industrial connection.
- Student diversity and science education.
- Moving Forward.

** See the WWW and registration material for start times.

ISOTOPES IN BIOLOGICAL & CHEMICAL SCIENCES

HOLIDAY INN
VENTURA, CA
JANUARY 11 - 16, 1998
Tak Ishida, Chair
Vern L. Schramm, Vice-Chair

- Proton Tunneling in Complex Systems
- Protons in Low-Barrier Hydrogen Bonds
- Isotope Effects as Probes of Mechanisms in Biologic Systems
- Theories of Isotope Effects
- The 50th Anniversary of Publication of the Bigeleisen-Mayer Article
- Isotope-Edited Vibrational Spectroscopy
- Isotope Effects in Enzymic Reactions
- Advances in Isotope Analysis
- Isotopes in Physical Organic Chemistry
- Isotopes in Atmospheric Geoscience

MAGNETIC NANOSTRUCTURES **

HOLIDAY INN
VENTURA, CA
JANUARY 25 - 29, 1998
David Awschalom, Chair
Albert Fert, Vice-Chair

- Magnetic Multilayers And Related Phenomena
- Magnetic Semiconductor Heterostructures
- Granular Alloys And Composite Media
- Electronic Structure Of Interfaces
- Spin-Polarized Tunneling And Magnetoelectronics

- Macroscopic Quantum Tunneling/Coherence
- Molecular Magnets And Biomagnetics
- Nanometer-Scale Magnetism: Wires And Dots
- Novel Instrumentation For Magnetometry And Imaging
- Quantum Computing With Magnetic Nanostructures
- New Applications Of Micromagnetism

** See the WWW and registration material for start times.

MAGNETIC RESONANCE IN MEDICINE & BIOLOGY

HOLIDAY INN
VENTURA, CA
FEBRUARY 15 - 20, 1998
David Wemmer, Chair
James Norris, Vice-Chair

- Enhancing NMR Experiments
- Spin Labels, New Uses and Methods
- Protein Dynamics and Stability
- NMR Studies of Nucleic Acid Structures
- Following Protein Folding
- EPR of Metals in Proteins
- Studies of Ordered Phases
- Other Enhancements for NMR

MARINE NATURAL PRODUCTS

HARBORTOWN
VENTURA, CA
FEBRUARY 22 - 27, 1998
John Cardellina, Chair
Valerie Paul, Vice-Chair

- Frontiers in Collecting - Accessing New and Different Organisms
- Marine Microorganisms - Culture, Ecology, Chemistry, Bioactivity
- Biofouling - Ecological Issues, Industrial Problems and Needs, Chemistry

METALS IN BIOLOGY

HARBORTOWN
VENTURA, CA
JANUARY 18 - 23, 1998
Kenneth Karlin, Chair
Eckard Munck, Vice-Chair

- Bioinorganic Chemistry And Biogeochemical Cycles
- Iron Sulfur Clusters
- Zinc Proteases

- Metal Regulation And Processing
- Medicine And Diagnostics
- Peroxynitrite And Nitrogen Oxide Biology/Chemistry
- Physical Studies on Electron Transfer Centers
- Dioxxygen Processing/O₂-Activation
- Bioinorganic Disease States

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- Quorum Clusters
- Water Clusters
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- Cluster Growth and Dynamics
- Reaction Dynamics in Clusters

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- Development
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- Theory
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MYELIN **

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- Glial Cell Fate Specification
- Axonal Pathology in Myelin Disease
- Gene Dosage in Myelination and Dysmyelination
- Early Events in Oligodendrocyte Development

- Regulation of Oligodendrocyte Proliferation
- Transplantation and Remyelination
- Physiology of Oligodendrocyte Function
- Glia-Immune Cell Interaction
- Myelin Protein Sorting and Targeting
- Dynamics of Oligodendrocyte Response to Injury
- New Insights into Multiple Sclerosis Pathogenesis

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OXYGEN RADICALS

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Balz B. Frei & Balaraman Kalyanaraman, Co-Vice-Chairs

- Molecular Mechanisms and Antioxidants
- Cellular Mediators of Oxidative Stress
- Mediators of Oxidative Stress In Vivo
- Vascular Oxidative Biology
- Radicals in Enzyme Kinetics
- Nitric Oxide
- Degenerative Diseases
- Conference Plenary Lecture

PEPTIDES, BIOLOGY & CHEMISTRY OF

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FEBRUARY 15 - 20, 1998

Barbara Imperiali & Daniel Rich, Co-Chairs

- Keynote Speakers
- Peptidomimetics
- Peptide Antibiotics
- Peptidyl Polymers For Materials Research
- Novel Synthetic And Analytical Methods
- Protein Design
- Peptides And Membranes
- Du Vigneaud Award Session

PINEAL CELL BIOLOGY

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Steven Reppert, Chair

J. Arendt, Vice-Chair

- Non-Mammalian Pineal Functions

- Arylalkylamine N-Acetyltransferase
- Melatonin Actions I
- Retina-Opsins
- Melatonin Actions II
- Pineal-Melatonin Cell Biology
- Mammalian Photoperiodism
- Melatonin Hype and Controversies
- Plenary Session

PLANT HERBIVORE INTERACTION

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Deane Bowers, Chair

Jack Schultz, Vice-Chair

- Physiological Approaches to Plant-Herbivore Interactions
- Biochemical Pathways and the Plant-Herbivore Interface
- Tolerance/Costs of Herbivory and Defense
- Multitrophic Interactions
- Evolutionary Approaches to Plant Herbivore Interactions

PROLACTIN

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Nelson Horseman, Chair

Li-Yuan Yu-Lee, Vice-Chair

- Keynote Presentation
- Prolactin in the Mammary Gland
- Prolactin in the Brain and Behaviors
- Growth Hormone and Prolactin in Whole Body Physiology
- Neuroendocrine Regulation of Prolactin Function
- PRL/Cytokine Receptor Function
- Contributors Selected from Abstracts
- Lactogens and Reproductive Function
- Immunoregulation and Hematopoiesis

SENSORY TRANSDUCTION IN MICROORGANISMS

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JANUARY 11 - 16, 1998

Steven Block, Chair

Philip Matsumura, Vice-Chair

- Sensory Motifs
- Bacterial Receptors
- Structure/Function in Chemotaxis
- Signaling Diversity I
- Pathways and Modeling / Late-breaking News
- Signaling Diversity II
- Linear Motors
- Rotary Motors
- Perfumes, Rhythms and Beyond

SPIROCHETES, BIOLOGY OF

HOLIDAY INN

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JANUARY 18 - 23, 1998

Sheila Lukehart, Chair

Steven Norris, Vice-Chair

- Evolution and Genetics
- Gene Organization, Expression, and Function
- Prospecting the Genomes of Spirochetes: Where do we go from here?
- Host-Parasite Interactions
- Spirochete Membrane Antigens
- Mechanisms of Pathogenesis
- Biology and Ecology
- Antigens and Host Responses

THROMBOLYSIS

HOLIDAY INN

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FEBRUARY 8 - 13, 1998

Katherine Hajjar, Chair

Dudley Strickland & Tor Ny, Co-Vice-Chairs

- Regulation of Plasminogen Function
- Structure/Function of Fibrinolytic Proteins
- Fibrinolysis and Angiogenesis
- Integrin Function and the Fibrinolytic System
- Fibrinolytic Receptors
- Fibrinolysis and Atherosclerosis
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European Careers in the **Biotechnology & Pharmaceuticals Industry**

by John Timpane

- Bayer AG
- GSF
- SmithKline Beecham
- Novartis Pharmaceuticals



Europe is a fascinating place at any time, but if you're a scientist thinking of a career, Europe is especially so now. As Tage Honoré of Novartis in Basel, Switzerland, puts it, "What happened in the U.S. ten to fifteen years ago just started here two to five years ago." Large pharmas are striking up partnerships with smaller biotechs, to benefit from the hot fields of genomics, bioinformatics, and combinatorial chemistry. Barriers between academe and industry are all but gone: collaboration reigns supreme. As the days approach when Europe really becomes one market, companies are feeling stronger and looking forward.

Job-seekers need to be excellent scientists versed in the skills of the moment, excellent communicators, adept at teamwork, crossdisciplinary innovation, and entrepreneurship. Below, we hear from scientists from Bayer AG; GSF (The National Research Center for Environment and Health) in Germany; SmithKline Beecham in the UK, and Novartis Pharmaceuticals in Switzerland. The era of consolidation and realignment is drawing near to its close, and the era of functional genomics is not too far away. Quite a career scenario for the next century and millennium.

Bayer AG: Growing Markets and Technological Leadership

LEVERKUSEN, GERMANY—"Genomics, bioinformatics, combinatorial chemistry, high-throughput screening, molecular biology." Those are the five scientific fields that Susanne Leyer and Jörg Traber of Bayer AG say are especially in demand at the moment at their company. Leyer and Traber say that within pharmaceuticals, the departments of chemical research, bioinformatics, and molecular biology are in greatest need of scientists.

The near future for Bayer AG reflects the trends all across Europe. Like many large pharmas, Bayer AG is forging ties with biotechs and investigating avenues by which it can strengthen its already great expertise in the hot fields of the moment. "Collaboration with biotechnological companies will continue to grow," Leyer and Traber write. "An even bigger portion of the R&D budget will be spent externally. Investment into key technologies such as functional genomics, bioinformatics, combinatorial chemistry, and high-throughput screening will continue."

The outlook from Leverkusen is optimistic. "Markets will continue to grow," Leyer and Traber write, "and innovative drugs will provide a return on investment. The proportion of elderly people in the general population will increase, thereby increasing the need for treatments of age-related diseases."

John Timpane, PhD, writes frequently on the biotechnology and pharmaceutical industries.

continued ►



GSF, the National Research Center for Environment and Health

Leyer and Traber's wish list for the successful industrial scientist in Europe sums up all the things we've been hearing in this article: The successful industrial scientist "develops innovative methods and ideas; shows flexibility, initiative, and stability; takes business risks and responsibility; fosters teamwork; communicates very effectively; and claims leadership."

GSF: Looking for Scientists Who Can "Play the Piano"

NEUHERBERG, GERMANY—"Scientists today—in Europe, in Japan, in the United States, everywhere—have to learn to play the piano," says Ernst-Günter Afting. "By that I mean they have to know how to use their network of contacts, understand something about the financial and industrial aspects of making products from basic research, and even understand a little about the law behind it all."

Afting is president of GSF, the National Research Center for Environment and Health, and if he seems to be asking for a lot from his scientists (who make up about half of the 1,600 staff at GSF), he is in fact voicing a wish list being heard more and more often in the world of science.

Somewhere between a company and a university, GSF is supported by both the local government of Bavaria and the federal government. Biotechnology is a major focus at GSF. "The name of the institute reflects this," says Afting. "We have to work out new therapies while also finding ways to preserve the environment." Research thus ranges from gene therapy and

bone marrow transplantation to bioremediation.

What kinds of scientists is Afting looking to hire? Because GSF comprises 20 separate research efforts, the range of expertise is quite broad, including biologists, molecular biologists, mathematicians, statisticians, MDs, and physicists. "We want people with all the latest

skills, people with excellent training who can start doing good science right away," says Afting.

According to Afting, the health and prospects for European biopharma is very good indeed. Large pharmas will be purchasing more and more vanguard technologies from smaller companies, which in turn will be outsourcing most of their basic research discoveries for development and marketing.

World science turns over every seven years, leaving a bewildering and exciting world in its wake. As Germany and Europe take a more and more vigorous role in world science, Afting and GSF are looking for the pianists who can play the right music for the dance.

SmithKline Beecham Attracts a New and Evolving Type of Scientist

Genomics and informatics have revolutionized the way research is carried out at SmithKline Beecham (SB), resulting in a new breed of scientists equally at home at the bench and using computers. Particularly highlighted are the areas of bio-, gene- and chem-informatics. These are the groups that are mining the vast amounts of data being generated from SB's genome-based research. As a result, SB is at the forefront of generating pioneer healthcare products that are targeted at prevention, treatment, and cure.

Nigel Broom, recruitment manager R&D, credits the leadership at SB that has, in Broom's words, "re-engineered the discovery process and established our commitment to new platform technologies—genomics, high-throughput screening, informatics, and com-

binatorial chemistry." In addition, the presence of newly recruited research leaders, such as Peter Goodfellow, senior vice president, biopharmaceutical R&D, ensures that SB will maintain its leadership in genomic research.

The new approach to drug discovery means new career opportunities for researchers. A range of positions are being filled in many areas, including molecular and clinical genetics; transgenic research, including application of transgenics to neuroscience; informatics; high-throughput screening; sequencing and interpretation of DNA; and miniaturized robotics.

In all these fields, computer competence is a must for the present and future scientist. "Information technology plays an ever-expanding role in industry, both generally, in presentation and communications, the use of networked information sources on Inter- and intranets" Broom says, "and in the use of specific software applications, such as those needed for bioinformatics and molecular modeling. Any state-of-the-art application is highly computer-driven today."

Beyond discovery research, informatics and genomics have had a wide influence throughout the company. "The adoption of these new techniques and skills in our departments of drug metabolism, pharmacokinetics, safety assessment, and chemical development has had a major impact, and has contributed to cycle time reduction in drug development," Broom says.

Genomics will also affect how science is carried out in clinical development. "Because we're evolving totally novel compounds for the pioneer targets," Broom says, "we need new evaluation strategies. We're preparing ourselves in advance for the downstream consequences of the genomics explosion through partnering with clinical research establishments in Cambridge and at Presbyterian Hospital in Philadelphia in the United States."

In connection with this expanded clinical effort, SB is looking for another important type of scientist: the clinician with both clinical and laboratory research training. As compounds

Future-bending technologies.

The quantum leap in the evolution of analytical technologies at SmithKline Beecham will revolutionise the ever-earlier prevention, treatment and cure of disease. This remarkable progress will be possible because of the commitment to these new platform technologies, such as genomics, high-throughput screening, informatics and combinatorial chemistry.



Stephen Hald, *Loop*, Acrylic on Canvas

The application of novel technologies in a computer-driven environment creates new opportunities for research professionals throughout the organisation. Molecular and clinical genetics, transgenic research, including application of transgenics to neuroscience, sequencing, interpretation of DNA and miniaturised robotics will define the role of pharmaceuticals into the next century.

If you have skills in gene sequence analysis, bioinformatics, advanced computing and large-scale systems, artificial intelligence and fuzzy logic, opto-electronics and biosensor design, robotics, design of automated and miniaturised screening systems, computational chemistry, structural biology, biomaterials, macromolecular and surface chemistry technologies or macrocyclic chemistry, and would like to work in an advanced, interdisciplinary research environment dedicated to leadership in genetic medicine, please send your resume to: SmithKline Beecham Pharmaceuticals, Job Code A10/10-NB, (UK positions) P.O. Box 192, Brentford, Middlesex TW8 9XB or (US positions) P.O. Box 2645, Bala Cynwyd, PA 19004. For more information on SmithKline Beecham visit our Web site at www.sb.com/careers. We are an Equal Opportunity Employer, M/F/D/V.

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come through in greater numbers and with greater rapidity, the goal is a seamless transfer from discovery to clinical development.

Job-seekers should keep in mind that as science and the market have changed, so companies have changed as well. "Organizations are now broader and flatter," Broom says. "There is much more collaboration between departments, research groups, and levels of responsibility." These facts of life help determine the general profile desirable in the contemporary job-seeker. "Excellence in science, innovation, good communication skills, flexibility, and a dynamic, entrepreneurial spirit are essentials for the successful scientist today," Broom says. "We want people who think outside the box and can communicate that thinking throughout the company. Those are the people that will drive us into the next century."

Universities in Europe and the UK are turning out such people, but not in great numbers. "We generally see them among people who have taken a science degree and have become more involved in the computational side of genomics as part of a postdoc or further project work," Broom says. "With that combination they evolve a new speciality for themselves."

Broom advises students to get exposure to the pharmaceutical industry. He recommends the "sandwich course," gaining popularity in Britain, in which a student spends twelve months out of a four-year academic course at a pharmaceutical company. SB now has 100 sandwich students, along with 150 joint-sponsored (with the BBSRC, MRC) PhD students. Broom also speaks highly of the Framework IV sponsorships, which bring postdocs from France, Germany, and other European countries into foreign labs.

"A lot of people are talking about the European pharmaceutical industry coming into a new era of prosperity in the next decade," says Alan Chandler, director of pharmaceutical communications for SB. "We believe it will, too, not so much through the mergers and acquisitions that have taken place recently, but through the application of

new technologies. The genomics and informatics era will bring new, useful medicines onto the market. They will also help us make discovery and development more efficient, by leading us to better targets and better ways to utilize them."

Broom shares Chandler's excitement about the present and the future: "Under financial, political, and governmental pressure, our industry has been changing rapidly," he says. "Add to that this influx of new skills and technology and you have an extremely exciting, extremely challenging field"

Ready for the Flood: Nervous System Research at Novartis Pharma

BASEL, SWITZERLAND—Tage Honoré, head of nervous system research at Novartis Pharmaceuticals, says, "There's a really good interaction right now among industry, academia, and small biotech companies." In that atmosphere, nervous system research is booming at Novartis. Five subgroups examine mental health (psychosis and depression), Alzheimer's disease, stroke and epilepsy, chronic pain, and degenerative diseases (other than stroke and Alzheimer's).

"While we still have important programs supporting symptomatic approaches," Honoré says, "our main goal ultimately is to treat the disease rather than the symptoms. Now we're trying to look more into the causes of the disease, trying to block or reverse degeneration." In Alzheimer's disease, Novartis has just launched a cholinergic esterase inhibitor. It is hoped that future approaches will address the degenerative process within Alzheimer's. In Parkinson's disease, the approach is similar.

Molecular biology and genomics are very hot at the moment. Novartis supports a considerable amount of genomic research externally. Genomic research is more descriptive than functional at the moment. The trick is to be ready when the anticipated flood of functional information is loosed. "We're preparing for when susceptibility genes appear for schizophrenia," Honoré says. "When that happens—



Pharmaceutical research at Novartis laboratories

and it will happen, I'm sure—we will be prepared to step in."

His advice for job-seekers is "to regard quality as the key issue." That is, the better the research, the better the job prospects. A second crucial aspect is networking. "We want people who bring with them an excellent set of contacts," Honoré says, "people well-connected with their colleagues in academe. It's important to have good connections with colleagues to tap into the latest insights right away."

In closing, Honoré brings up the saying that "creativity and innovation aren't the same." The creative person merely has ideas; the innovator does something new with them. Honoré is looking for scientists who have both talents: "I like to see people who can transform their new ideas into something useful." ■

November Career Workshops:

Join us for an online discussion group on European Careers at the Science Professional Network Web page (www.sciencemag.org). Click on Science Professional Network, and then click on Career Workshops. An expert in the field of European Careers in Biotechnology and Pharmaceuticals will be our guest for the month of November.



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Will be responsible for design, construction, operations, maintenance, and upgrades of the accelerator systems. Successful candidates must have a PhD in physics or engineering or equivalent experience in accelerator physics. Positions available for both junior- and senior-level candidates who desire to work on technically challenging projects and have demonstrated records of outstanding achievement in the design, construction, development, and operation of accelerator facilities, commensurate with their experience.

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Will participate in scientific research and lead multi-laboratory teams to design, construct, test, install, and operate new neutron scattering instruments. Successful candidate must have a PhD or equivalent experience in science or engineering with professional experience in neutron scattering and scientific research. A demonstrated record of accomplishments in design, development, and operation of neutron scattering instruments, and experience with pulsed spallation neutron sources is desirable.

The initial assignment for these positions may be at a collaborating laboratory or university. Qualified candidates should identify the position of interest and submit a curriculum vitae with a list of 3 or more references to: **SNS Selection Committee, Attn: Dr. Bill R. Appleton, Oak Ridge National Laboratory, PO Box 2008, Dept-SCI, Oak Ridge, TN 37831-6240 or e-mail to gxb@ornl.gov.**

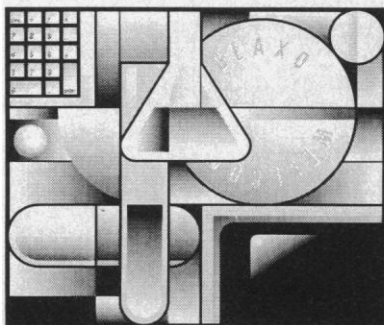
More information about ORNL and the SNS is available by visiting our web sites at:

www.ornl.gov and www.ornl.gov/~nsns/nsns

ORNL, a multipurpose research facility managed by Lockheed Martin Energy Research Corp for the U.S. Department of Energy, is an equal opportunity employer committed to building and maintaining a diverse work force.

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SENIOR SCIENTIST/ RESEARCH INVESTIGATOR II Pharmacology

Selected individual will develop new exploratory approaches for the discovery of hepatitis B therapeutics. This position requires a background in molecular and cellular virology with direct experience with hepatitis B virus. Ph.D with post-graduate experience is preferred. Excellent communication and teamwork skills are required, as is the ability to work effectively within a large and diverse drug development team.

In exchange for your considerable skills, we offer an excellent salary and benefits package and the opportunity for career growth. For confidential consideration, send your resume, which must include position title and salary history to: **Human Resources Department, Job # ASC4028-1, Glaxo Wellcome, P.O. Box 13398, Research Triangle Park, NC 27709.** (No Phone calls or Agency Referrals, Please) An Equal Opportunity Employer M/F/D/V

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At Berlex, we've built our reputation on FDA-approved product successes and a proven track record in the pharmaceutical industry. Currently, we are seeking an Associate Scientist to participate molecular biology studies in our Cardiovascular Department and join our team in the beautiful San Francisco Bay Area.

Associate Scientist

The candidate we seek will have an MS degree and at least 3-4 years of laboratory experience. We will also consider those with a BS degree with equivalent laboratory experience. Skills in molecular biology (PCR, DNA and RNA manipulations, site-directed mutagenesis, gene expression) and protein biochemistry (protein purification, Western blotting, ELISA, enzyme assays) are essential. Previous experience in transgenic or knockout mouse models would be advantageous. Knowledge of thrombosis and hemostasis is also a plus. The successful candidate will be a highly motivated individual who is willing to work on various team projects. Good communication and computer skills are expected.

As a US subsidiary of an international Fortune 500 company, Berlex is proud to offer competitive salaries and a generous benefits package. To apply, send your CV/resume to: **BERLEX, HUMAN RESOURCES EMPLOYMENT, DEPT. QW, 15049 SAN PABLO AVE., RICHMOND, CA 94804-0099.** Principals only, please. EOE.

BERLEX

THE BEST IS YET TO COME

Center for Advanced Research in Biotechnology/ National Institute of Standards and Technology NRC/NIST Postdoctoral Fellowships in Experimental and Theoretical Structural Biology

The Center for Advanced Research in Biotechnology (CARB), in conjunction with the National Research Council (NRC) and the National Institute of Standards and Technology (NIST), is offering postdoctoral fellowships in experimental or theoretical structural biology. Qualified applicants working in the broad areas of biochemistry, biophysics, and theory that relate to macromolecular structure and function are encouraged to apply. Research areas include:

Protein crystallography, ribonucleases, hemoglobin, GSTs

Gary L. Gilliland

Computational chem., molecular recognition, electrostatics

Michael K. Gilson

Quantum chemistry, enzyme mechanism

Morris Krauss

Bimolecular NMR, RNA structure, RNA-protein interactions

John P. Marino

Biochemistry, membrane protein folding, visual pigments

Kevin D. Ridge

Biothermodynamics, calorimetry, molecular recognition

Frederick Schwarz

DNA repair mechanisms, topoisomerases, NMR spectroscopy

James T. Stivers

CARB, a research center of NIST and the University of Maryland Biotechnology Institute, provides state-of-the art research facilities and a stimulating environment for postdoctoral training in macromolecular structure, function, and theory. The NRC Associateships pay \$45,500/yr plus benefits and the application deadline is January 15, 1998. *U.S. citizenship is required.* For more information, see <http://indigo15.carb.nist.gov/carb/carb.html>, and <http://rap.nas.edu/>. To initiate an application, please contact the faculty members listed above via e-mail or write to: **CARB, 9600 Gudelsky Dr., Rockville, MD 20850.** The Department of Commerce/NIST is an Equal Employment/Affirmative Action Employer.

Postdoctoral Research Fellowships for Physicians

1998 Competition

30 Fellowships will be awarded to physicians by the Howard Hughes Medical Institute for three years of training in fundamental biomedical research. Awards, based on an international competition, focus on research directed to understanding basic biological processes or disease mechanisms. Fellowships may be held at academic or nonprofit research institutions, including but not limited to Hughes laboratories.

Fellowship Terms

- Three years of support
- Full-time fundamental research
- \$40,000–\$60,000 annual stipend
- \$16,000 annual research allowance
- \$13,000 annual institutional allowance

Eligibility

- M.D., M.D./Ph.D., M.B.B.S., or D.O., with the first medical degree awarded no earlier than 1988
- At the start of the fellowship
 - at least two years of postgraduate clinical training completed
 - no more than two years of postdoctoral research training completed
- Applicants (and fellows) may not have faculty appointments
- Fellows may not be enrolled in graduate degree programs
- No citizenship requirements for application; U.S. citizens may study abroad, but others must study in the United States

Schedule

- Application deadline: December 4, 1997
- Awards announced: July 1998
- Fellowships start: September 1, 1998–September 1, 1999

1998 Program Announcements and Applications

Howard Hughes Medical Institute
Office of Grants and Special Programs
Department CC98
4000 Jones Bridge Road
Chevy Chase, MD 20815-6789, United States of America
Telephone (301)215-8889
Fax (301) 215-8888
E-mail <fellows@hq.hhmi.org>
<http://www.hhmi.org/fellowships/>

The Howard Hughes Medical Institute, an Equal Opportunity Employer, welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.

POSITIONS OPEN

CHAIR

PATHOLOGY AND LABORATORY MEDICINE

The University of Texas M.D. Anderson Cancer Center is seeking a Chair for a new combined Division containing the Departments of Pathology and Laboratory Medicine. The Chair will be responsible for surgical pathology, cytopathology, electron microscopy, flow cytometry, hematopathology, histopathology, immunocytochemistry, molecular pathology, neuropathology, clinical and special chemistry, cytogenetics, hematology laboratory, histocompatibility, laboratory information systems, microbiology/virology, transfusion medicine/blood bank, experimental laboratory medicine, and satellite laboratories. Innovative research and molecular diagnostics are included to provide the most comprehensive and sophisticated pathology services.

Applicants should have an M.D. degree and should be certified in anatomic or clinical pathology by the American Board of Pathology or have equivalent qualifications. Applicants should have a recognized professional status with significant accomplishments in pathology, and in leadership and administrative responsibilities at a large academic medical center. Candidates must satisfy academic requirements for professorial rank. Dedication to the pursuit of excellence in patient care, research, education, and prevention as it relates to diagnosis, monitoring, and therapy of the cancer patient is essential. Curricula vitae from interested candidates will be accepted until December 1, 1997, or until the job is filled.

Qualified applicants should submit a curriculum vitae to:

James D. Cox, M.D.
Chairman, Search Committee for Chair
Pathology and Laboratory Medicine
The University of Texas
M.D. Anderson Cancer Center
1515 Holcombe Boulevard, Box 97
Houston, TX 77030

Women and minorities are encouraged to apply. Equal Employment Opportunity/Affirmative Action, smoke-free environment.

FACULTY POSITION VETERINARY MICROBIOLOGY

Tenure-track, twelve-month position for a Veterinary Microbiologist. The successful candidate will supervise the microbiology section of the Veterinary Diagnostic Center (VDC) and develop a research program that relates to pre-harvest food safety and/or infectious diseases of animals. Will also serve as the coordinator and primary teacher for an undergraduate/graduate pathogenic microbiology course offered annually. Candidates must have a Ph.D. in an appropriate field. A D.V.M. or equivalent degree and postdoctoral experience is desirable. Essential that candidate have appropriate background and ability to communicate effectively with VDC clientele, who are oriented primarily to agricultural animals. Appointment will be either **ASSISTANT** or **ASSOCIATE PROFESSOR** in the Department of Veterinary and Biomedical Sciences. Applications will be accepted until December 1, 1997 (or until position is filled). Qualified applicants should send letter of intent and curriculum vitae and arrange submission of three letters of reference to: **Dr. John A. Schmitz, Department of Veterinary and Biomedical Sciences, University of Nebraska-Lincoln, P.O. Box 830905, Lincoln, NE 68583-0905.** UNL is committed to a pluralistic campus community through Affirmative Action and Equal Opportunity; is responsive to the needs of dual career couples; and assures reasonable accommodation under the Americans With Disabilities Act. Contact: **Dr. Schmitz at Telephone: 402-472-2952** for additional information.

FACULTY POSITIONS IN IMMUNOLOGY DUKE UNIVERSITY MEDICAL CENTER

The Department of Immunology invites applications for tenure-track faculty positions at all levels.

Candidates working in lymphocyte signal transduction, general lymphocyte biology, or lymphocyte development are encouraged to apply.

Interested individuals should send a curriculum vitae, a statement of research interest, and the names of three references to:

Dr. Thomas F. Tedder
Department of Immunology
P.O. Box 3010
Duke University Medical Center
Durham, NC 27710

Duke University Medical Center is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

UIC

FACULTY POSITIONS

The Department of Microbiology and Immunology, in the College of Medicine at the University of Illinois at Chicago (UIC) is seeking to fill several tenure/tenure-track faculty positions at the level of **ASSOCIATE** or **ASSISTANT PROFESSOR**. UIC is the largest institution of higher learning in the Chicago area and is a significant center for international education and research. UIC's College of Medicine is part of the Westside Medical Center, and is the largest medical school in the United States.

The successful faculty candidate will be expected to develop and maintain a vigorous independent research program and participate in the multifaceted research and graduate training programs in the Department. Generous laboratory space and start-up funds are available. Applicants are required to have a Ph.D., M.D., or equivalent doctorate-level degree and at least two years of postdoctoral research experience. Preference will be given to individuals whose research interests are focused on virology and/or immunology.

For fullest consideration, please send applications, including a curriculum vitae, at least three letters of recommendation, and a brief statement of future research plans, by December 15, 1997, to:

Search Committee
Department of Microbiology and
Immunology
University of Illinois at Chicago
College of Medicine
835 South Wolcott (M/C 790)
Chicago, IL 60612-7344

The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

CHAIR, DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

The School of Medicine of The University of North Carolina at Chapel Hill is reopening the search for an individual to chair the Department of Pathology and Laboratory Medicine and to provide academic and administrative leadership in programs of laboratory medicine, anatomic pathology, teaching, and research. **Dr. Joe Grisham**, who ably chaired the Department for 23 years, is retiring, and we seek an outstanding leader to continue the tradition of excellence in this fine department. Minimum qualifications include an M.D. degree and a distinguished record of performance in research and teaching, with potential or demonstrated abilities to lead and manage a complex and multifaceted academic department. Experience in hospital laboratory medicine is desirable. Research interests may be in any relevant areas of anatomic pathology, pathobiology, or the biomedical sciences. Review of applications will begin on November 1, 1997, and continue until the position is filled. Reply by sending a current curriculum vitae, a letter of interest, and the names and addresses of four references to: **P. Frederick Sparling, M.D., Chair, Pathology and Laboratory Medicine Search Committee, Office of the Dean, School of Medicine, University of North Carolina at Chapel Hill, CB# 7000, 125 MacNider Building, Chapel Hill, NC 27599-7000, ATTN: Jane Teeter.** Affirmative Action/Equal Opportunity Employer. Women and minority applicants are encouraged to voluntarily identify themselves.

FACULTY POSITIONS. New Jersey Neuroscience Institute, Seton Hall University invites applications for positions at **ASSISTANT** and **ASSOCIATE PROFESSOR** levels. Positions are available for scientists holding a Ph.D. with interest in fMRI (especially with application to vision, cognition, or epilepsy), brain slice recording (related to epilepsy), optical imaging (for human or animal cortex), or human vestibular physiology. New Jersey Neuroscience Institute has excellent facilities for all of these areas. Prospective candidates should send a curriculum vitae and summary of research plans to: **Martin Gizzi, M.D., Ph.D., New Jersey Neuroscience Institute, 65 James Street, Edison, NJ 08818.** JFK Medical Center is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

EARTH AND ATMOSPHERIC SCIENCES AT GEORGIA TECH ATMOSPHERIC CHEMISTRY POSITIONS

We invite highly qualified candidates to apply for up to two **TENURE-TRACK FACULTY POSITIONS** that will complement our existing program and enhance interactions among faculty within the school. Applicants should have an earned Ph.D. and be quantitative scientists with broad interests in earth system science. Successful candidates will develop strong independent research programs and participate in both the graduate and undergraduate education programs. The Atmospheric Chemistry positions will focus on individuals having strong experimental backgrounds. Of special interest will be those involved in the development and application of advanced instrument technology for airborne field measurements. Measurements of tropospheric trace gases and aerosols that can support current local, regional, and global modeling efforts will be given the highest consideration. Both junior and senior positions will be considered.

Applicants should send a résumé, selected reprints, a statement of professional research and teaching goals, plus the names, addresses/e-mail, and telephone numbers of three persons whom we may contact for references, to:

Douglas Davis
Search Committee
School of Earth and Atmospheric Sciences
Georgia Institute of Technology
Atlanta, GA 30332-0340

We anticipate that these positions will become available in 1998-99. Candidate evaluations will begin October 1, 1997, and continue through December 1, 1997.

Georgia Tech is an Equal Opportunity/Affirmative Action Employer and a Unit of the University System of Georgia.

EXECUTIVE VICE PRESIDENT/ CHIEF ACADEMIC OFFICER

The University of Texas M.D. Anderson Cancer Center, recognized as one of the world's most respected centers devoted to excellence in cancer patient care, research, education, and prevention, announces a search for the Executive Vice President/Chief Academic Officer (EVP/CAO). This individual will report directly to the President and will be responsible for developing and implementing a superior academic vision for M.D. Anderson. The EVP/CAO will be responsible for the overall integrity and quality of medical and scientific faculty activities within the research, prevention, and education missions of M.D. Anderson. The EVP/CAO will provide overall leadership to over 1,700 faculty and trainees and will have ultimate responsibility for M.D. Anderson Cancer Center's faculty divisions and departments.

Candidates must possess a strong academic background with a degree in medicine and/or an academic doctorate in one of the biomedical sciences. The successful candidate will have an established record of leadership in a senior academic administrative position and possess expertise in the field of biomedical research, preferably oncology.

For confidential consideration, please send curriculum vitae to: **John H. Moxley, III, M.D., Korn/International, 1800 Century Park East, Suite 900, Los Angeles, CA 90067.**

Equal Employment Opportunity/Affirmative Action, smoke-free environment. Women and minorities are strongly encouraged to apply.

FACULTY POSITION ASSISTANT PROFESSOR

The Department of Cell Biology and Anatomy has an Assistant Professor-level position available July, 1998. The successful candidate will have an active, funded research program in cell biology. Teaching responsibility will be in gross and developmental anatomy. Current departmental research includes: extracellular matrix and membrane trafficking, connective tissue disorders, pharmacology of GABAergic systems, retinal neurobiology, molecular biology, and myogenesis.

The Chicago Medical School is located north of Chicago in an attractive suburban setting. Send letter of interest, curriculum vitae, and names of referees to:

Dr. David McCandless
Department of Cell Biology and Anatomy
Finch University of Health Sciences/
The Chicago Medical School
3333 Green Bay Road
North Chicago, IL 60064

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Advanced scientific technologies at SmithKline Beecham have made a fundamental impact on the work of the Safety Assessment (SA) function. Major activities of the group include toxicological assessment of compounds supporting regulatory approval and conduct of investigative toxicology and pharmacology using modern approaches in biological sciences. Utilising new technologies such as molecular toxicology, telemetry, magnetic resonance imaging, biofluid NMR and bioinformatics, SA at SmithKline Beecham is continuing to develop as a centre of excellence in the application of investigative toxicology, risk assessment and hazard identification to the successful development of new medicines. SA currently has a number of exciting opportunities for talented professionals to join a team working towards this goal.

If you have skills in molecular biology, genetic technology, pathology, pharmacology or bioinformatics and would like to work in a creative and innovative environment dedicated to pioneering drug development, please send your full career details, quoting Ref: SA/SC to (UK positions) Sharon-Carter Jones, Salisbury Consulting Group, Salisbury House, Beaconsfield Close, Hatfield, Hertfordshire AL10 8YE, fax: 01707 222002, e-mail: sharon@salcongp.co.uk, or (US positions) PO Box 2645, Bala Cynwyd, PA 19004, USA. For more information on SmithKline Beecham visit our Web site at www.sb.com/careers. We are an Equal Opportunity Employer, M/F/D/V.

THE UNIVERSITY OF LEEDS

DEPARTMENT OF PHYSIOLOGY RESEARCH FELLOW - MOLECULAR BIOLOGY OF ION CHANNELS

This postdoctoral position, funded by the British Heart Foundation (BHF), is available immediately for a fixed period of 3 years. As part of a small team, the appointee will study the structure - function relationships of the cardiac muscarinic K⁺ channel and will be responsible for measuring currents ("whole cell" and single channel) through wild-type and mutant channels expressed in oocytes.

Applicants should have a Ph.D in an appropriate biological science and relevant electrophysiological research experience.

Salary will be on the scale for Research Staff Grade 1A (£15,159 - £22,785 p.a.) according to qualifications and relevant experience.

Informal enquiries may be made to and application forms and further particulars obtained from :

**Professor M R Boyett, Department of Physiology,
The University of Leeds, Leeds LS2 9JT.**

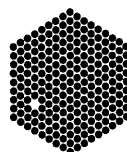
**Tel: +44(0)113 233 4298, fax: +44 (0) 113 233 4224
email m.r.boyett@leeds.ac.uk**

In all enquiries please quote the reference number 104/55.

Closing date for applications: **7 November 1997.**

The University of Leeds promotes an equal opportunities policy.

CONFERENCE



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ONCOGENES AND GROWTH CONTROL

18-22 APRIL 1998, at EMBL in Heidelberg

Speakers:

K. Basler, R. Beddington, M. Bienz, H. Clevers, S. Cohen, S. Cory, J. Downward, R. Eisenman, G. Evan, M. Freeman, A. Hall, C. Harley, E. Harlow, B. Hogan, A. Israel, S. Jackson, A. Kimchi, R. Klein, P. Krammer, D. Lane, R. Laskey, D. Livingston, M. van Lohuizen, C. Marshall, A. McMahon, Y. Nakatani, R. Paro, J.M. Peters, R. DePinho, T. Rabbitts, E. Ruoslahti, J. Schlessinger, T. Taniguchi, K. Vousden, X. Wang, R. Weinberg, E. Wieschaus, A. Wolffe, M. Yaniv.

Organizers:

T. Graf, H. Land, D. Bohmann, T. Hunter, J. Smith.

The deadline for applications is **31st January 1998**. The total number of participants will be limited to 250. Registration fee: **DM 1000,-** and for corporate participants **DM 2000,-** (includes accommodation, local transport and meals). The registration fee should NOT be sent before acceptance to the conference. About 10 abstracts will be selected for oral presentations. There will also be two poster sessions. All poster abstracts will be published in the conference booklet. Application and abstract forms can be obtained from: **Servane Leillard, EMBL, Postfach 10.2209, 69012 Heidelberg, Germany. Tel: +49-6221-387411 (afternoon); Fax: +49-6221-387516. E-mail: leillard@embl-heidelberg.de**

POSITIONS OPEN

FACULTY POSITIONS IN MICROBIOLOGY UNIVERSITY OF MINNESOTA

The Department of Microbiology and the Biological Process Technology Institute at the University of Minnesota invite applications for two tenure-track positions in Microbiology at the **ASSISTANT PROFESSOR** level. Candidates carrying out research addressing important aspects of the biology of prokaryotes are urged to apply. We are particularly interested in outstanding candidates who will establish independent research programs in areas of microbial biology such as physiology, diversity, development, ecology, genetics, or pathogenesis. In addition, applicants for these positions should be well qualified to contribute to the teaching of general microbiology and prokaryotic structure, function, and metabolism in the undergraduate, graduate, or medical curriculum. Both of the individuals selected for these positions will hold their academic appointment in the Department of Microbiology. For more information about microbiology at the University of Minnesota, please visit our website: <http://www.microbiology.med.umn.edu>.

Minimum Qualifications: Ph.D. in microbiology or a related biological science discipline or an M.D. degree, plus postdoctoral experience. Closing date for applications is December 15, 1997, but early applications are encouraged and will be considered promptly. To apply, submit a curriculum vitae, summary of research interests and plans, and arrange to have three letters of recommendation sent to: **Gary M. Dunphy, Ph.D., Search Committee Chair, Department of Microbiology, Medical School, University of Minnesota, Box 196, 420 Delaware Street S.E., Minneapolis, MN 55455.**

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

FACULTY POSITION SAN DIEGO STATE UNIVERSITY

PLANT POPULATION GENETICIST, tenure-track, **ASSISTANT or ASSOCIATE PROFESSOR**, to begin fall 1998. Ph.D., active research program required, postdoctoral experience desirable. Preferred expertise should center on the use of genetic and molecular techniques to address evolutionary problems of land plants at and below the species level, including questions of genetic variation, plant breeding systems, conservation biology, and speciation. Teaching to include undergraduate and graduate courses in genetics, evolution, and an area of expertise. Candidate should be able to interact with a diverse student body and with an active group of faculty interested in whole-organism biology, systematics, ecology, and evolution. Send curriculum vitae, research/teaching statement, three representative publications, and have three letters of reference sent to: **Plant Population Geneticist Search Committee, Department of Biology, San Diego State University, San Diego, CA 92182-4614.** Applications accepted until 1 December 1997. More information available at website: <http://www.sci.sdsu.edu/fac-recruitment>. *San Diego State University is an Equal Opportunity Title IX Employer and does not discriminate against persons on the basis of race, religion, national origin, sexual orientation, gender, marital status, age, or disability.*

TWO FACULTY POSITIONS DEPARTMENT OF BIOCHEMISTRY AND BIOPHYSICS

Iowa State University

The Department seeks to fill two tenure-track appointments at the level of **ASSISTANT PROFESSOR**. Successful applicants will be expected to develop independent research programs that emphasize biochemical and/or biophysical aspects of important biological problems. Interest in graduate and undergraduate teaching also is required. Departmental areas of research focus are detailed at website: <http://molebio.iastate.edu/bbhtml/homepage.htm>.

Applicants should send a curriculum vitae and description of research accomplishments and interests, and have three letters of recommendation to:

**Faculty Search Committee
Donald Graves, Chairman
Department of Biochemistry and Biophysics
1210 Molecular Biology Building
Iowa State University
Ames, IA 50011**

To ensure full consideration, all materials should be received by December 15, 1997. *Iowa State University is an Affirmative Action/Equal Opportunity Employer. Applications from women and minority candidates are especially encouraged.*

POSITIONS OPEN

ASSOCIATE DEAN FOR CLINICAL RESEARCH

Applications are invited for the position of Associate Dean for Clinical Research at the Texas Tech University Health Sciences Center (HSC) School of Pharmacy. The Associate Dean will be charged with spearheading the development of clinical research at the School of Pharmacy, as well as fostering research collaborations between faculty at the School and all regional campuses of the Texas Tech University HSC. The School, which started its first class in August 1996, is located in a new 102,000-plus square foot building on the Harrington Regional Medical Center in close proximity to the School of Medicine, School of Allied Health, and Veterans Affairs Medical Center in Amarillo, Texas. Visit our website: www.ismo.ama.ttuhsc.edu. The position requires a senior-level Pharm.D., Ph.D., or M.D. scientist with extensive experience in clinical research, a strong history of independent grant funding, and solid administrative and leadership skills. Interested applicants should submit curriculum vitae, bibliography, summary of research accomplishments and future goals, and names, addresses, and telephone numbers of three references to: **Dr. Quentin Smith, Texas Tech University HSC, School of Pharmacy, 1300 S Coulter Drive, Amarillo, TX 79106.** E-mail: quentin@cortex.ama.ttuhsc.edu. Application review will begin December 1, 1997.

Texas Tech University Health Sciences Center is an Equal Opportunity/Affirmative Action Institution. Minorities and women are encouraged to apply.

NORTHWESTERN UNIVERSITY DEPARTMENT OF NEUROBIOLOGY AND PHYSIOLOGY

TWO TENURE-TRACK FACULTY POSITIONS are available in the areas of: Molecular, Cellular, and Integrative Neurobiology.

The Department expects to hire two new faculty members with interests in areas such as (but not restricted to) the molecular, genetic, or cellular basis of neuronal signaling, signal transduction, plasticity, development, or learning. These positions are likely to be filled at the junior level, but outstanding senior candidates will also be considered. Faculty will be expected to maintain a strong independent research program, and to participate in graduate and undergraduate teaching. Applicants should send a curriculum vitae and statement of research interests by December 1 and have at least three letters of reference sent to the address below:

**Jon E. Levine, Ph.D.
Chair, Search Committee
Department of Neurobiology and Physiology
Northwestern University
2153 North Campus Drive
Evanston, IL 60208**

Women and members of minority groups are especially encouraged to apply. Northwestern University is an Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION IN ANATOMY AND PHYSIOLOGY

Heidelberg College, a small liberal arts college in northwestern Ohio, seeks an enthusiastic, student-centered teacher/scholar to fill a **TENURE-TRACK** position in anatomy and physiology within the Biology Department. A Doctorate in physiology or anatomy is expected; a background working with live animals in physiology lab exercises, and with cats and cadavers in anatomical studies is desirable. Applications will be reviewed beginning November 15, 1997, and should include a cover letter outlining teaching and research goals, a complete curriculum vitae, graduate transcripts, and three letters of recommendation. Submit materials to: **Anatomy and Physiology Search, Department of Biology, Heidelberg College, 310 East Market Street, Tiffin, OH 44883-2462.** *Affirmative Action/Equal Opportunity Provider.*

VERMONT LAW SCHOOL seeks a **FACULTY MEMBER** to strengthen its interdisciplinary approach to teaching law and science, with emphasis on environmental regulation and natural resource management. Both a J.D. and a Ph.D., or equivalent, in one of the biological or ecological sciences are required as well as a demonstrated ability to integrate scientific principles and methods with the legal process. Contact: **Associate Dean Stephanie J. Willbanks, Vermont Law School Chelsea Street, South Royalton, VT 05068.** *Women and minorities are strongly encouraged to apply.*

POSITIONS OPEN

LAB DIRECTOR. Center for Molecular Imaging, Diagnosis and Therapy. The Department of Radiology, Beth Israel Deaconess Medical Center, Harvard Medical School, seeks a highly motivated researcher at the faculty level to direct a research laboratory in molecular imaging, diagnosis, and therapy with the aim of developing an independent grant-funded program in oncologic interventions. Anticipated projects include tumor imaging, intratumoral delivery of novel gene therapeutics, and establishment of preclinical models. The successful candidate should have a record of successful grantwriting experience and be eager to develop his or her own research program. Harvard Medical School appointment possible. Candidates should have a Ph.D. with three to five years of postdoctoral experience in independent laboratory research and a strong background in molecular and cell biology. Estimated start date: January 1, 1998. Send a curriculum vitae and three letters of reference to: **Melvin E. Clouse, M.D., Vice Chairman and Director of Research, Department of Radiology, Beth Israel Deaconess Medical Center—West Campus, 1 Deaconess Road, Boston, MA 02215.** Telephone: 617-754-2526; e-mail: mclouse@bidmc.harvard.edu. *The Beth Israel Deaconess Medical Center is an Equal Employment Opportunity/Affirmative Action Employer.*

DEPARTMENT OF PSYCHIATRY FACULTY POSITION TENURE-TRACK

The Department of Psychiatry at the Uniformed Services University of the Health Sciences is seeking to fill a tenure-track research and teaching position (**ASSISTANT/ASSOCIATE PROFESSOR**). The Department is comprised of twenty full-time faculty and seeks an individual with research interests to complement ongoing neuroscience research in: neurobiology of stress, anxiety (particular acute stress responses, PTSD, and dissociation); psychiatric responses to traumatic events; neurochemical and behavioral correlates of drugs and drug abuse; psychoimmunology. Individuals who hold M.D. or Ph.D. degrees and have active research interests that complement or expand upon the above areas are invited to apply. Send curriculum vitae, description of current and anticipated research interests, and three references to: **Uniformed Services University of the Health Sciences, ATTN: Harry C. Holloway, M.D., Department of Psychiatry, 4301 Jones Bridge Road, Bethesda, MD 20814-4799.** *The University is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION DEVELOPMENTAL AND CELL BIOLOGY University of California-Irvine

We are seeking applicants at the **ASSISTANT or ASSOCIATE PROFESSOR** level to complement existing programs in molecular genetics, cell biology, developmental biology, plant biology, and neurobiology. Emphasis is on excellence and an integrative approach rather than a particular area although existing programs in the department emphasize cell signaling, growth, and differentiation, and molecular bases of cell behavior. Successful applicants are expected to maintain an active, funded research program and to participate in teaching at the undergraduate and graduate levels. Please submit a curriculum vitae, synopsis of research and teaching interests, and three letters of reference to: **Search Committee, Department of Developmental and Cell Biology, 5207 Bio Sci II, University of California-Irvine, Irvine, CA 92697-2300** by December 1, 1997.

Please visit our departmental website: <http://www.bio.uci.edu/units/dc/faculty/>.

UCI is an Equal Opportunity Employer committed to excellence through diversity.

FACULTY—RHEUMATOLOGY

The University of Illinois at Chicago, Section of Rheumatology invites applications for a faculty position at the **RESEARCH ASSISTANT PROFESSOR** level. We seek an outstanding scientist, M.D. or Ph.D., with a background in the cell and molecular biology of inflammation, cytokines, and connective tissue. Send curriculum vitae, statement of current and future research plans, and list of three references to: **John Varga, M.D., Chief, Section of Rheumatology, Department of Medicine, University of Illinois at Chicago, 900 South Ashland (M/C 733), Chicago, IL 60607.**

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

ROYAL NETHERLANDS ACADEMY OF ARTS AND SCIENCES CALLS FOR NOMINATIONS FOR THE

HEINEKEN PRIZES 1998

The Royal Netherlands Academy of Arts and Sciences (KNAW) selects the recipient of the

- Dr H.P. Heineken Prize for Biochemistry and Biophysics 1998
- Dr A.H. Heineken Prize for Medicine 1998
- Dr A.H. Heineken Prize for Environmental Sciences 1998

These biennial prizes, offered by the Dr H.P. Heineken Foundation and the 'Alfred Heineken Fonds' Foundation, reward outstanding scientific achievement in the field of biochemistry and biophysics, medicine and environmental research.

Along with a permanent token each Prize consists of Dfl. 250,000.- (about US \$ 125,000.-) to be spent at will.

Nominations are restricted to individual, active scientists whose contributions to biochemistry and biophysics, medicine or environmental research should be outstanding and a source of inspiration to others.

Nominations must include a description of the research work and publications on which the nomination is based,

a curriculum vitae, bibliography, and one or two key publications. The deadline for nominations is January 1, 1998.

Nomination forms and general information are available from the:

Secretariat of the Heineken Prizes,
Royal Netherlands Academy of Arts and Sciences,
P.O.Box 19121, 1000 GC Amsterdam, The Netherlands.

Telephone: 31 (0) 20 55 10 769, telefax: 31 (0) 20 6 20 49 41.



ROYAL NETHERLANDS ACADEMY
OF ARTS AND SCIENCES

NFR Naturvetenskapliga forskningsrådet

Swedish Natural Science Research Council

invites applications for
SENIOR RESEARCH POSITIONS in

Evolutionary Studies on Innate- and Acquired Immunity (Ref: 702-274/97)

Experimental Nuclear Physics far from Beta-Stability (Ref: 702-275/97)

Hydrometeorological Processes (Ref: 702-277/97) The Scope of the position is the study of energy and water exchange processes with particular emphasis on the interaction between land, ocean, and the atmosphere at different scales.

Life History Biology (Ref: 702-279/97)

Metabolic Studies of Microorganisms with Relevance for the Production of Biofuels (Ref: 702-282/97) The position is aimed for molecular studies and design of relevant metabolic processes in organisms such as bacteria, yeast, and algae which can potentially be used for the production of various kinds of biofuels.

Molecular Aspects on Energy Conversion in Biological and Biomimetic Systems (Ref: 702-283/97)

Protein Structure and Folding (Ref: 702-284/97)

Synthetic Glycochemistry (Ref: 702-286/97)

Tropical Biodiversity (Ref: 702-287/97)

The Council's intention in creating these positions is to contribute to the recruitment of researchers and to the renewal of research in Sweden. The programme is aimed primarily at scientists with a doctorate and several years of postgraduate research. The positions are held for three plus three years and are placed at appropriate university departments in Sweden to be chosen in consultation between the candidates, NFR, and the universities. The applicant is kindly requested to state where he wants the position to be placed. The universities decide on tenure. Duties can commence from July 1, 1998. The salary range will correspond to that of an Assistant/Associate Professor (SEK 300,000–390,000 per year, i.e., USD 39,000–50,000 per year).

A curriculum vitae including a list of publications, a short research plan plus a description of scientific achievements (max 5 pages), and a maximum of 10 reprints of scientific papers should be appended. Other documents that the applicant wants to refer to could also be included. Four copies of the application and all appendixes and reprints should be submitted.

Applications, quoting Ref, should reach the **Swedish Natural Science Research Council, Box 7142, S-103 87 Stockholm, Sweden**, by December 1, 1997.

Further information can be obtained from **Ms. Natalie Lunin at the Secretariat of NFR**, phone no. +46 8 454 42 32, fax no. +46 8 454 42 50.



University of Zurich

The Department of Zoology
invites applications for a

Research Position in Ecology

behavioral ecology, population genetics, or evolutionary biology. Our research projects aim at combining theoretical and empirical as well as ultimate and proximate approaches to the study of adaptation in vertebrates, especially amphibians and birds. Further information can be found on our home page: <http://www.unizh.ch/zool/depts/ecol/index/html>.

Applicants must possess a Ph.D.; some postdoctoral experience is advantageous. The successful candidate is expected to participate in ongoing research and teaching programs and to develop his/her own program. The position is available from January 1998 to December 1999 for a period of two years. Continuation thereafter cannot be guaranteed.

If you are interested, please send me your application with curriculum vitae, list of publications, summary of research goals, and three letters of reference until November 15, 1997.

Prof. Dr. Heinz-Urich Reyer

Zoologisches Institut der Universität Zürich

Winterthurerstrasse 190, CH-8057

Zürich, Switzerland

FAX: ++41-635 68 17, E-mail: ulireyer@zool.unizh.ch

POSITIONS OPEN

FACULTY POSITION IN MOLECULAR/ CELLULAR BIOLOGY

The Department of Biological Sciences of the Bayer School of Natural and Environmental Sciences invites applications for a full-time, tenure-track position at the rank of **ASSISTANT PROFESSOR**. Applicants must have a Ph.D., postdoctoral research experience, and a commitment to both research and teaching. The successful candidate will receive a competitive start-up package and salary, and is expected to develop an extramurally funded research program involving undergraduate and graduate students. Teaching responsibilities will include an introductory biology course and a course in an area of expertise. Deadline for submission of applications is November 15, 1997. Send letter of application, curriculum vitae, representative reprints, statement of research and teaching goals, and three letters of reference to: **John Doctor, Department of Biological Sciences, Duquesne University, Pittsburgh, PA 15282-1521.** *Duquesne University, an Equal Opportunity Employer, strongly encourages applications from women and minority candidates.* Duquesne University website: <http://www.duq.edu>.

FACULTY POSITION—FOREST ECOLOGY. The School of Natural Resources at the University of Missouri—Columbia is seeking a Forest Ecologist for a tenure-track **ASSISTANT PROFESSOR** position. This individual will be expected to develop a vigorous, externally funded research program in the ecology of natural and managed forest ecosystems and to participate in both undergraduate and graduate teaching programs in forestry. Desirable research areas include forest productivity, fire and disturbance ecology, landscape ecology, and human impacts on forests. A Ph.D. with at least one degree in forestry is required; postdoctoral experience is desirable. Applicants should submit by January 1, 1998, a résumé, transcripts, a two-page statement of research and teaching interests, and the names, addresses, and telephone numbers of three references to: **Dr. Steve Pallardy, School of Natural Resources, 1-30 Agriculture Building, University of Missouri, Columbia, MO 65211.** Telephone: 573-882-3548; FAX: 573-882-1977; e-mail: snrpalla@mucmail.missouri.edu; website: <http://www.snr.missouri.edu/announcement.html>. *An Equal Opportunity Employer/Americans with Disabilities Act Institution.*

BIOLOGY LIMNOLOGIST/FRESH WATER ECOLOGIST ASSISTANT PROFESSOR OF BIOLOGY

Tenure-track position opens fall, 1998. Requires team participation in a freshman science course, courses in area of specialty, occasional seminar leadership, directing research leading to senior theses, and advising students. Ph.D. required and firm commitment to enthusiastic teaching at small liberal arts college. Send letter of application, three letters of reference, curriculum vitae, and a list of references by December 15, 1997, to: **Dr. Donald Toczek, Chair, Biology Department, Hillsdale College, Hillsdale, MI 49242.** Hillsdale College is an independent, traditional college of liberal arts and especially committed to the preservation and transmission of modern man's intellectual and spiritual inheritance from the Judeo-Christian faith and Greco-Roman culture. *Equal Opportunity Employer.*

DEPARTMENT HEAD. Department of Forest Sciences, Colorado State University (CSU). Qualifications: demonstrated leadership in forest biology, or management; Ph.D. or D.F.; quality teaching, research and extension or service experience, academic administrative experience or evidence of potential. Position available July 1, 1998. Applications will be considered until position is filled; submit applications by December 15, 1997, for full consideration. For information contact: **Forest Sciences Search Committee, c/o Alan Covich, College of Natural Resources, CSU, Ft. Collins, CO 80523.** E-mail: alanc@cnr.colostate.edu. *Ethnic minorities and women are encouraged to apply. CSU is an Affirmative Action/Equal Opportunity Employer.*

Technology Policy. **TENURE-TRACK FACULTY** at any level to teach and do research on technical innovation, research and development policy, technology transfer, or similar issues. Research must not treat technology as a black box. Require Ph.D. in science or engineering and demonstrated modern social science research skills. Various joint appointments possible. Résumé to: **Granger Morgan, Head, Department of Engineering and Public Policy, Carnegie Mellon, Pittsburgh, PA 15213 USA.**

POSITIONS OPEN

GROSS ANATOMIST. The Department of Anatomy at The University of Health Sciences College of Osteopathic Medicine seeks to fill an **ASSISTANT or ASSOCIATE PROFESSOR** position. Applicants should have a Ph.D. in anatomy with experience in teaching human gross anatomy (lecture and laboratory dissection). The person filling this position must have strong interest and commitment to teaching medical students. Other duties include scholarly work such as research or writing; active participation in departmental activities and professional development; service to the University on committees; and advising medical students. We are looking for a positive team player with exemplary professional characteristics.

CELL BIOLOGIST. Entry-level **FACULTY** position is available in the Department of Anatomy/Division of Basic Sciences, under the direction of the Department Chair, **Robert E. Stephens, Ph.D.** Candidates must have a doctorate degree, postdoctoral or teaching experience in a relevant field, and a commitment to interdisciplinary teaching. The position will involve teaching histology and genetics to medical students. Primary emphasis is on education, but research and/or other academic activities are expected.

Salary is dependent on qualifications and experience; excellent benefits. Qualified applicants should send their applications including curriculum vitae, a statement of teaching philosophy and scholarly interests, and the names and telephone numbers of three references to: **Dawn M. Harrington, Director of Human Resources, The University of Health Sciences College of Osteopathic Medicine, 1750 Independence Boulevard, Kansas City, MO 64106.** Pre-employment drug screen required. *An Affirmative Action/Equal Opportunity Employer.*

ENVIRONMENTAL CHEMIST

The University of South Carolina seeks applications from Environmental Chemists for a nine-month tenure-track position to begin August 1998. We anticipate filling this position at the rank of **ASSISTANT PROFESSOR**, but applications for a more **SENIOR** appointment will be considered. Preference will be given to candidates who work in analytical environmental chemistry with a strong organic chemistry background; however, any candidate who complements our existing strengths in environmental aspects of analytical, biological, or geological chemistry or toxicology will be considered. Ph.D. required; postdoctoral experience preferred. The successful candidate will be expected to establish a vigorous, well-funded research program. Teaching duties will emphasize environmental chemistry courses at undergraduate and graduate levels. Applicants should submit a curriculum vitae and a detailed description of research plans by November 10, 1997, and arrange for at least three letters of recommendation to be sent to: **Professor S. Michael Angel, Chairman of Environmental Chemist Search Committee, Department of Chemistry and Biochemistry, University of South Carolina, Columbia, SC 29208.** Visit our website: <http://www.cosm.sc.edu/chem>. *The University is an Equal Opportunity/Affirmative Action Employer and encourages applications from minorities and women.*

The Department of Pharmacology and Toxicology at the Medical College of Virginia, Virginia Commonwealth University seeks applications for a non-tenure-track **ASSISTANT PROFESSOR**. Primary responsibility will be to conduct immunotoxicological research on the ability of drugs and chemicals to induce hypersensitivity. Applicant will also be required to conduct mechanistic studies, using molecular biology techniques, to study cellular and subcellular effects on the immune system. Must secure extramural research support in immunotoxicology and teach to graduate and professional students. Candidate must have a Ph.D. in pharmacology, toxicology, microbiology, or immunology and at least one year of postdoctoral training (with publications) in the field of immunotoxicology. Send a curriculum vitae, statement of interests, and list of three references by November 15 to: **Brenda Caine (F0648), P.O. Box 980613, Richmond, VA 23298-0613.** Position description available. *VCU is an Equal Opportunity/Affirmative Action Employer and encourages women, minorities, and persons with disability to apply.*

POSITIONS OPEN

DR. D. R. SEMMES DISTINGUISHED PROFESSOR IN CHEMISTRY Trinity University, San Antonio, Texas

Trinity University is seeking a person with a distinguished record of teaching and research involving undergraduates to fill the **Dr. D. R. Semmes Distinguished Professorship in Chemistry**. The endowed Professorship augments a well established and nationally recognized undergraduate program in chemistry, and contributes significantly to the chemical profession through leadership in teaching, research, and interactions within the university and professional communities.

The Semmes Distinguished Professor will be selected from candidates with expertise in any area of chemistry or biochemistry. Candidates must have a distinguished record of undergraduate teaching and research, and must be able and willing to continue these efforts at Trinity. Candidates must have experience and interest in the teaching of courses outside their area of expertise, including introductory courses, and be willing to assume a leadership role in undergraduate curricular developments. Candidates must have external support for their research, and be willing to assist the department in further development of research resources. The ideal candidate will complement the existing strengths in the faculty and resources of the Chemistry Department.

Trinity University is an independent, coeducational, primarily undergraduate institution founded in 1869. Undergraduate enrollment is approximately 2,300, including students from all areas of the United States and many foreign countries. Trinity has highly selective admission standards, and is rapidly moving toward its goal of becoming one of the nation's finest undergraduate institutions. An attractive campus overlooks downtown San Antonio, a city rich in heritage and ethnic diversity with a population of approximately one million.

Candidates are requested to forward a letter of application, curriculum vitae, and a statement of teaching philosophy and research objectives, along with the names, addresses, telephone numbers, and e-mail addresses of at least three people who could provide references if asked, and any other materials of the candidate's choice to: **Professor William E. Kurtin, Chairman, Department of Chemistry, Trinity University, 715 Stadium Drive, San Antonio, TX 78212-7200.** Deadline for applications is December 15, 1997. Letters of nomination are encouraged, as well as nominations by telephone, FAX, or e-mail. Telephone: 210-736-7616; FAX: 210-736-7569; e-mail: wkurtin@trinity.edu. *The University is an Equal Opportunity, Affirmative Action Employer; minority and female candidates are especially encouraged to apply.*

BIOLOGY FACULTY POSITIONS

Lewis & Clark College invites applications for two tenure-track **ASSISTANT PROFESSOR** positions in animal behavior and animal physiology beginning September 1998. Candidates should be committed to excellent teaching and to developing an externally funded research program involving undergraduates. Ph.D. required; postdoctoral experience preferred. Successful applicants will alternate teaching in core courses for biology majors and the College's general education program with upper division courses in biology.

Behavior: We seek an individual who integrates an investigative, field-based approach to the study of vertebrate behavior with a strong foundation in natural history, to teach animal behavior and one or more of the following: vertebrate biology, ornithology, mammalogy.

Physiology: We seek an individual who uses a comparative approach to study animal physiology with an emphasis on underlying mechanisms, to teach animal physiology and one or more additional subjects. Since the College is not currently equipped to house mammals, preference will be given to those who study non-mammalian vertebrates or invertebrates.

Submit letter of application, curriculum vitae, descriptions of research interests and of teaching interests and philosophy, representative reprints, and three letters of recommendation to: **Chair, Behavior (or Physiology) Search Committee, Department of Biology, Lewis & Clark College, Portland, OR 97219.** Review of applications will begin on October 31. Lewis & Clark is a small, private, four-year liberal arts college. For more information, visit our website: <http://www.lclark.edu>. *Lewis & Clark College is an Equal Opportunity/Affirmative Action Employer that strongly encourages applications from women and minority candidates.*

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Pharmaceuticals

Opportunity in CNS Research

F. Hoffmann-La Roche, one of the world's leading pharmaceutical companies, has a long tradition of successful and innovative CNS research. As a part of an expanding commitment in this area, Roche's preclinical CNS department in Basel, Switzerland, is looking for talented, motivated and energetic individual to fill the following position:

Group leader – behavioural neurobiology

We are looking for someone with an outstanding scientific record and experience in behavioural neurobiology, in particular cognitive testing, to work on new models of psychiatric and neurological illness and to examine lesioned and transgenic animals within the department's drug discovery projects. The successful candidate will head his/her own research group in addition to organising the work of 15 – 20 behavioural pharmacologists.

Who to contact

If the above profile fits your background and experience and you are interested in this challenging position then please forward your full application documentation to our Human Resources Department, attn. Mr. W. Aschwanden, F. Hoffmann-La Roche Ltd, P.O. Box, CH-4070 Basel, quoting reference As385. For further information, please contact Dr. G. Kilpatrick, Tel: +41 61 688 82 90.

POSITIONS OPEN

ADULT OR PEDIATRIC TRANSPLANT PHYSICIANS

Baylor College of Medicine Stem Cell Transplantation Program

Houston, Texas. Baylor College of Medicine, Texas Children's Hospital, and The Methodist Hospital have come together to form a large-scale, research-driven Stem Cell Transplantation Program. This state-of-the-art program, under the leadership of **Dr. Malcolm Brenner**, will have close links with the recently established Baylor College of Medicine Shell Center for Cell and Gene Therapy which will provide resources for both basic and clinical research, and will include cGMP vector production and cell culture suites. The Center will provide appointees with ample facilities and opportunities for translational research. Appointments may be made at the **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** level, depending on the experience and abilities of the applicants.

Adult stem cell transplants will be performed in a newly constructed 25,000 sq. ft. facility based at The Methodist Hospital under the leadership of **Dr. Helen Heslop**, while the Texas Children's Hospital Transplant program will take place in a recently constructed nine-bed unit under the leadership of **Dr. Robert Krance**.

Bone marrow transplant physicians will attend on the pediatric and/or adult units and assist with the care of patients in the inpatient and outpatient setting. Candidates must have expertise in autologous and allogeneic bone marrow transplantation and be Board-certified or equivalent in pediatrics or medicine and either hematology/oncology or immunology. They should have an interest in applying research findings in hematology, immunology, and molecular biology to the clinical practice of stem cell transplantation.

Interested candidates should send curriculum vitae or inquiries to:

Malcolm Brenner, M.D.
Shell Center for Cell and Gene Therapy
Texas Children's Cancer Center
6621 Fannin Street, MC 3-3320
Houston, TX 77030

Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.

CELL BIOLOGIST AND WILDLIFE BIOLOGIST/MAMMALIAN ECOLOGIST

The Department of Biology at the University of North Dakota is seeking to fill two tenure-track **ASSISTANT PROFESSOR** positions to begin August 16, 1998. Ph.D. required and postdoctoral experience desirable. Review of applications will begin October 31, 1997, and continue until each position is filled. **CELL BIOLOGIST**. Both plant and animal cell biologists are encouraged to apply. Establishment of a strong, independent research program and direction of graduate students are expected. Will instruct a cell biology course and participate in a team-taught introductory biology course. An upper-level undergraduate and graduate course in area of specialization will be expected in the future. Send curriculum vitae, three representative reprints, list of relevant coursework, statements of teaching and research interests, and have three letters of recommendation sent directly to: **Dr. A. J. Fivizzani**, Chair, Cell Biology Search Committee, Department of Biology, Box 9019, University of North Dakota, Grand Forks, ND 58202-9019.

WILDLIFE BIOLOGIST/MAMMALIAN ECOLOGIST. We seek a colleague interested in developing an extramurally funded research program preferably focused on the ecology/conservation biology of mammals of north central North America. Teaching responsibilities will include mammalogy and participation in team-taught introductory biology. An additional upper-level undergraduate or graduate course in area of specialization will be expected in the future. Other responsibilities include participation in the Fisheries and Wildlife program, direction of graduate students, and curation of a modest regional mammal collection. Send curriculum vitae, three representative reprints, list of relevant coursework, statements of teaching and research interests, and three letters of reference to: **Dr. Robert Newman**, Chair, Wildlife Biologist/Mammalian Ecologist Search, Department of Biology, University of North Dakota, Grand Forks, ND 58202-9019. Telephone: 701-777-2621; FAX: 701-777-2623. The University of North Dakota is an Affirmative Action/Equal Opportunity Employer. For additional information on the positions and our department, consult our website: <http://www.und.nodak.edu/dept/biology/jobs.html>.

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR OXIDATIVE STRESS IN ISCHEMIC BRAIN INJURY University of Maryland

Research Assistant Professor. Creative, dedicated Ph.D. or M.D. Investigator with an excellent publication record will work with a multidisciplinary team on mechanisms of neurodegenerative disorders with emphasis on oxidative stress, calcium, and metabolic failure. Experience in free radical biochemistry, neurobiology, and membrane biology preferred. Competitive salary commensurate with experience and benefits package. Send curriculum vitae, a summary of research interests, and the names of three references to: **Dr. Gary Fiskum, Department of Anesthesiology, University of Maryland-Baltimore, 22 South Greene Street, Baltimore, MD 21201. E-mail: gfskum@anestlab.ab.umd.edu; FAX: 410-706-2550. The University of Maryland is an Affirmative Action/Equal Opportunity Employer. Minorities and women applicants are encouraged to apply.**

POSTDOCTORAL FELLOW MOLECULAR MECHANISMS OF NEURODEGENERATION University of Maryland

Postdoctoral Fellow. Postdoctoral Investigator with experience in either mitochondrial bioenergetics, membrane biology, ion transport, neural cell biology, or mechanisms of cell death. Will work with a multidisciplinary team on mechanisms of neurodegenerative disorders with emphasis on oxidative stress, calcium, and metabolic failure. Competitive salary commensurate with experience and benefits package. Send curriculum vitae, a summary of research interests, and the names of three references to: **Dr. Gary Fiskum, Department of Anesthesiology, University of Maryland-Baltimore, 22 South Greene Street, Baltimore, MD 21201. E-mail: gfskum@anestlab.ab.umd.edu; FAX: 410-706-2550. The University of Maryland is an Affirmative Action/Equal Opportunity Employer. Minorities and women applicants are encouraged to apply.**

ASSISTANT PROFESSOR OF BIOMETRY available in Department of Crop Sciences, University of Illinois at Urbana-Champaign. Agricultural Biometry position emphasis on teaching of statistics and research in biometry, ecology, quantitative genetics, geostatistics, or another crop sciences subdiscipline. Nine-month tenure-track position; opportunity for summer appointment. Responsibilities 50 percent research, 50 percent teaching. Ph.D. in statistics or biometry with interest and experience in agronomic crop productivity, or a Ph.D. in crop science, or related area, with proven expertise in biometry. Postdoctoral experience preferred. Clear ability and desire to excel in classroom teaching at both undergraduate and graduate levels; excellent interpersonal communication skills; and demonstrated ability to design, conduct, and report independent research required. Salary commensurate with training and experience. Start date May 21, 1998, or when available. For full consideration, applications accepted until December 2, 1997. Submit application dossier consisting of statements of teaching philosophy and research goals; a curriculum vitae; and copies of undergraduate and graduate transcripts. Arrange for receipt of three letters of reference and the completed dossier by: **Professor G. H. Heichel**, Head, Department of Crop Sciences, University of Illinois at Urbana-Champaign, 1102 South Goodwin Avenue, Urbana, IL 61801-4798. Telephone: 217-333-9480. For additional information and full job announcement contact: **Dr. Donald G. Bullock**, Telephone: 217-244-8221; FAX: 217-244-8222; e-mail: dbullock@uiuc.edu. Affirmative Action/Equal Opportunity Employer. Cite announcement #09/97A-5771 when applying.

BIOLOGY—TENURE-TRACK

ASSISTANT PROFESSOR or ASSOCIATE PROFESSOR to begin September 1998. Seeking Zoologist with strong commitment to teaching embryology, comparative anatomy, and evolution courses at undergraduate and Master's level. Research interest at organismal or population level is an asset. Research start-up funds available. Small liberal arts college in a suburban setting on 300-acre campus approximately 25 miles from New York City. First review cycle will commence December 15. Please send curriculum vitae, names of at least three references, and any supporting material to: **Search Committee, Department of Biology, Long Island University, C.W. Post Campus, 720 Northern Boulevard, Brookville, NY 11548. Equal Opportunity Employer.**

POSITIONS OPEN

MICHIGAN STATE UNIVERSITY DEPARTMENT OF BIOCHEMISTRY

The Department of Biochemistry seeks applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. Applicants should have demonstrated productivity and evidence of potential for independent research in the general area of biochemical mechanisms of nucleic acid function. We are particularly interested in candidates who are developing research programs on chromatin or RNA structure and dynamics, multi-protein machinery, and nuclear architecture. The successful applicant will be expected to participate in the Program on the Biochemistry of the Cell Nucleus, an area of emphasis in the Biochemistry Department developed with support from the Michigan State University Cancer Center. We seek to recruit a colleague who will strengthen existing research programs on transcription, replication, mutagenesis and repair, recombination, and RNA/RNP structure, processing, and transport.

The Department of Biochemistry has a large faculty conducting research in most areas of contemporary biochemistry and molecular biology, providing both a stimulating scientific atmosphere and opportunities for research collaboration. The Department occupies a modern research building with well equipped research and teaching laboratories, and has vigorous undergraduate, graduate, and postdoctoral training programs.

Applicants should submit a curriculum vitae and a description of research accomplishments and future interests, and have three letters of recommendation sent on their behalf, to: **Dr. William L. Smith, Chairperson, Department of Biochemistry, Box S, Michigan State University, East Lansing, MI 48824-1319.** To ensure consideration, applications should be received by December 15, 1997. Information about the Department is available at website: <http://www.bch.msu.edu>. Michigan State University is an Affirmative Action/Equal Opportunity Employer. The Biochemistry faculty has explicitly endorsed efforts to increase the diversity of its ranks, and accordingly, candidates from groups currently underrepresented in academic science are encouraged to apply.

ASSISTANT PROFESSOR ECOLOGICAL OR EVOLUTIONARY MICROBIOLOGY—SEARCH EXTENDED

The Department of Biology at New Mexico State University is extending its search for a tenure-track Assistant Professor position. The successful candidate is expected to establish an independently funded research program in (1) the evolution of prokaryotes, (2) population/community genetics of prokaryotes, or (3) use of prokaryotes as models of fundamental evolutionary and ecological processes to complement existing departmental strengths in microbiology, evolution, and ecology. Candidates must hold an earned doctorate in an appropriate field. Postdoctoral experience strongly preferred. Teaching responsibilities will include general or public health microbiology, microbial physiology or microbial genetics, and participation in the department's introductory biology sequence. The department offers B.S. degrees in biology and microbiology as well as M.S. and Ph.D. degrees in biology and participates in the Molecular Biology Graduate Program. For more information on the department see website: <http://www.cs.nmsu.edu/~biology/>. Submit curriculum vitae, concise statements of research and teaching interests, reprints/preprints of up to three of your most significant papers, and have at least three letters of reference sent to: **Dr. Peter Herman**, Microbiology Search Committee, Department of Biology, New Mexico State University, Box 30001, MSC 3AF, Las Cruces, NM 88003. Review of applications will resume 10 days after the appearance of this ad and continue until the position is filled. New Mexico State University is an Equal Employment Opportunity/Affirmative Action Employer. Offer of employment contingent upon verification of individual's eligibility for employment in the United States.

ASSISTANT PROFESSOR

The University of Illinois, Section of Cardiology invites applications for a tenure research faculty position at the Assistant level. We seek an outstanding researcher with several years of experience in the area of molecular biology of cardiac hypertrophy. Address inquiries along with current curriculum vitae to: **Peter Buttrick, M.D., Chief, Section of Cardiology, The University of Illinois at Chicago, 840 South Wood (M/C 787), Chicago, IL 60612.**

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

Postdoctoral Positions in Cancer Research at The Wistar Institute

Two postdoctoral positions are available to: 1) Develop and apply new methods for analyzing complete protein profiles in human cancer cells to identify for critical proteins that define tumor phenotypes and/or will lead to development of improved diagnostic reagents.

Approaches will include 2D PAGE, image analysis, HPLC, and mass spectrometry. 2) Study structure and function of cell-cell adhesion proteins implicated in development of human melanoma and colon carcinoma. Approaches will primarily involve mutagenesis strategies coupled with biochemical and cell transfection analyses. Experience with molecular biology, mammalian cell culture, and protein purification/characterization methods preferred.

Interested applicants should send a C.V., e-mail address, and names of 3 references to: **Dr. David Speicher, THE WISTAR INSTITUTE, 3601 Spruce Street, Philadelphia, PA 19104.** The Wistar Institute, an independent non-profit research organization located on the campus of the University of Pennsylvania, is an Equal Opportunity Employer. Minority candidates are strongly encouraged to apply.



GLOBAL CAREER OPPORTUNITIES

Bureau of Resource Sciences



a professionally independent scientific bureau in the Australian Department of Primary Industries and Energy

Fellowships in Resource Sciences

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The Bureau of Resource Sciences is offering Fellowships to scientists who can make a significant contribution to our work in the following project areas:

- Biotechnology and intellectual property;
- Plant pests and pathogens;
- Energy and Greenhouse studies;
- Decision support systems and integrating social sciences;
- Water, forest, fisheries and agricultural resource management;
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Human Resources Manager:

ph: 61 2 6272 5056, fax: 61 2 6272 5050,

email: fellow@brs.gov.au,

PO Box E11 Kingston ACT 2604, Australia.

Closing date: 21 November 1997.

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GLOBAL CAREER OPPORTUNITIES



THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF BIOCHEMISTRY Faculty Positions

The Department of Biochemistry invites applications for a Professorship and for 1-2 faculty positions at the Associate Professor or Assistant Professor level. Applicants for Professor should be established scholars in a professorial capacity, with demonstrated academic leadership qualities. For the post of Associate Professor or Assistant Professor, a Ph.D. degree and relevant research experience are required.

Three major research areas are active in the Department: "Genetic Engineering & Structural Biology," "Molecular and Cellular Biochemistry," and "Biotechnology and Plant & Medicinal Biochemistry." Scientists eminent in other areas will also be considered. Teaching responsibilities include undergraduate and graduate courses.

Starting rank and salary will depend on qualifications and experience. Generous fringe benefits including medical and dental benefits, annual leave, and children's education allowance are provided; housing benefit will also be provided where applicable. Initial appointment will normally be on a three-year contract, immediate tenure may be considered for appointment at professorial level. A gratuity of an amount equal to 25% of the total basic salary drawn will be payable upon successful completion of contract. Re-appointment will be subject to mutual agreement.

Applications/nominations should be sent with a curriculum vitae, together with the names and addresses of three referees, to:

Dr. James Hackett, Chairman of Search Committee, Department of Biochemistry, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong (Fax No: 852 2358-1552) before 31 December 1997.



Professor & Head of Department Medical Laboratory Science

**Package around \$110,000
5 Year Contract**

Royal Melbourne Institute of Technology, RMIT University is the largest multi-level technological University in Australia with an international reputation for providing quality educational programs. It offers courses ranging from sub-degree to doctorate-level and has a total enrolment of approximately 40,000 students.

The Faculty of Biomedical & Health Sciences seeks a Professor & Head of Department for this senior role within the Department of Medical Laboratory Science. The Department is responsible for teaching and research in the disciplines of biochemistry/molecular biology, haematology/immunohaematology, immunology, pathology/cytology and pharmacology/toxicology. Conducting undergraduate courses leading to a Bachelor of Applied Science (Medical Laboratory) and coursework programs leading to Masters degrees in Applied Science (Medical Science) and (Toxicology), the Department also offers research-based honours, Masters and PhD programs.

Presently based at the central Melbourne campus (and relocated in three years to the Bundoora campus approximately 20kms north of Melbourne), this post requires a distinguished, relevant record in teaching and research, and highly developed leadership and management skills. A PhD or an equivalent qualification is regarded as essential.

Enquiries may be made by contacting Professor David Story, Dean of the Faculty on (61 3) 9660 2612, by fax on (61 3) 9663 5873 or by email: story@rmit.edu.au

For an information package please contact the Human Resources Management Group on (61 3) 9660 4600, fax: (61 3) 9660 4531 or via the Internet at the address below.

When submitting your application, you should include the names of three academic referees and quote reference number 779. Applications should be forwarded to: The Head, Executive Services Group, Human Resources Management Group, GPO Box 2476V, Melbourne, Victoria 3001, Australia, by Friday 14 November, 1997.

<http://www.rmit.edu.au/departments/hr>

YOUR FUTURE STARTS HERE

POSITIONS OPEN

TWO ASSISTANT PROFESSOR POSITIONS GENETICS AND INVERTEBRATE PHYSIOLOGY

Eckerd College seeks Ph.D. applicants for two tenure-track Assistant Professor positions to begin fall, 1998. In addition to teaching in the major, both positions require development of a research program accessible to undergraduates and occasional participation in the College's interdisciplinary, values-oriented, general education program. Eckerd College has recently completed a new marine science building and, through grants from HHMI and the Keck and Kresge Foundations, has developed state-of-the-art teaching/research labs in biology and marine science. Applicants should send a letter describing qualifications, curriculum vitae, undergraduate and graduate transcripts, three confidential recommendations, and teaching evaluations (if available) by 3 November 1997 to faculty listed below at: **Eckerd College, 4200 54th Avenue South, St. Petersburg, FL 33711.**

Marine Invertebrate Physiologist. Teaching will include an introductory-level marine invertebrate zoology course, and a junior-level, comparative and/or environmental physiology course that utilizes cellular and sub-cellular approaches. Send applications to: **Dr. Peter A. Meylan.**

Geneticist. Teaching will include undergraduate courses in genetics and cell biology utilizing modern molecular approaches in eukaryotes. Send applications to: **Dr. Guy Bradley.**

Equal Opportunity Employer, women and minorities are encouraged to apply.

PHARMACEUTICAL SCIENCES FACULTY POSITION

The Department of Pharmaceutical Sciences at North Dakota State University invites applications for a tenure-track position at the rank of **ASSISTANT PROFESSOR**, with appointment beginning July 1, 1998. The successful candidate will be expected to establish an externally funded research program, teach and mentor graduate students, as well as participate in team-taught Departmental courses offered in the professional pharmacy curriculum. Qualified candidates must hold a doctoral degree in the pharmaceutical sciences (e.g., pharmacology, pharmaceuticals, etc.). In addition, postdoctoral experience with a strong record of scholarship is required. The candidate must also have a strong commitment to teaching as well as good interpersonal and communication skills. The area of research interest is open, with preference given to investigators working at the cellular or molecular level. Current active areas of research in the department include: cardiovascular and neuropharmacology, drug delivery systems, pharmacokinetic modeling, and rational drug design. A professional pharmacy degree is desirable, but not required.

Application deadline is December 1st, 1997, or thereafter until the position is filled. Candidates should submit a curriculum vitae, statements of teaching and research interests, and request that three letters of reference be sent to: **Dr. John J. Wagner, College of Pharmacy, 123 Sudro Hall, Fargo, ND 58105.** *North Dakota State University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR DEPARTMENT OF NEUROBIOLOGY Stanford University School of Medicine

The Department of Neurobiology invites applicants for the position of Assistant Professor. Preference will be given to applicants using molecular, cellular, or neurophysiological techniques with research interests in systems level issues such as memory, learning, cognition, sensation, or movement control. This position offers outstanding scholarly and scientific resources and the opportunity to teach graduate and medical students with strong interests in neurobiology.

Applicants should submit, as soon as possible but prior to December 1, 1997, a curriculum vitae, bibliography, a brief (less than 500 words) description of research interests, and three letters of recommendation to:

Dr. Eric Knudsen
Chair of Search Committee

Department of Neurobiology
Stanford University School of Medicine
299 Campus Drive, Fairchild D257
Stanford, CA 94305-5125

Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.

POSITIONS OPEN

CARCINOGENESIS AND PREVENTION ASSISTANT OR ASSOCIATE PROFESSOR LEVEL

The Cancer Institute of New Jersey and the Department of Medicine and Surgery at the University of Medicine and Dentistry of New Jersey (UMDNJ)—Robert Wood Johnson Medical School are looking for M.D. or M.D.-Ph.D. physician scientists with research interests and a record of accomplishments in laboratory or clinical research in carcinogenesis and prevention. The successful applicant must be a Board-certified physician who can participate in the care of patients in a teaching hospital setting. Responsibilities will include interfacing between a strong laboratory research program in carcinogenesis and cancer prevention and the clinical services of The Cancer Institute of New Jersey. The candidate will have an academic appointment in an appropriate department (e.g., Medicine, Surgery) with a joint appointment in a basic science department. Applicants should submit curriculum vitae to: **Joseph Aisner, M.D., Chair, Search Committee, UMDNJ—Robert Wood Johnson Medical School, The Cancer Institute of New Jersey, 195 Little Albany Street, New Brunswick, NJ 08901.** *UMDNJ is an Affirmative Action/Equal Opportunity Employer, minorities/females/disabled/veterans, and a member of the University Health System of New Jersey. Minorities and women are encouraged to apply.*

ANIMAL MOLECULAR BIOLOGY POSITION UNIVERSITY OF NEBRASKA

The School of Biological Sciences and the Department of Veterinary and Biomedical Sciences invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level in the area of animal molecular biology. Candidate interests should include a background in molecular virology, molecular genetics, or regulation of development and differentiation. Candidates will be expected to develop a vigorous research program and assume teaching responsibilities in both undergraduate and graduate-level courses in animal molecular and cellular biology with agricultural and/or biomedical relevance. Scientists with a Ph.D. and postdoctoral experience are encouraged to apply by sending a curriculum vitae, statement of research interest and arrange for three letters of reference to be sent by November 30th to: **Animal Molecular Biology Search Committee Chair, School of Biological Sciences, 348 Manter Hall, University of Nebraska—Lincoln, Lincoln, NE 68588-0118.** The position will be open until a suitable candidate is selected. *UNL is committed to a pluralistic campus community and is responsive to the needs of dual career couples. We assure reasonable accommodation under the Americans with Disabilities Act; contact: Charles Wood at Telephone: 402-472-4550 for assistance.*

ANIMAL PHYSIOLOGISTS. Two positions pending funding, fall 1998; tenure-track; **ASSISTANT PROFESSOR**; awarded Ph.D., postdoctorate preferred. Teach vertebrate and human physiology and course in specialty; one will coordinate Clinical Laboratory Sciences Program; research program in animal physiology involving undergraduate and M.S. students. Commitment to innovative teaching including use of instructional technologies. Please send curriculum vitae, separate teaching and research statements, and three letters of reference to: **Physiology Search, Department of Biology, MSC 7801, James Madison University, Harrisonburg, VA 22807.** Applications received by November 15 will be assured consideration. *James Madison University is an Equal Opportunity/Affirmative Action/Equal Access Employer and especially encourages applications from minorities, women, and persons with disability. See website: <http://www.jmu.edu/biology/jobs.html> for details.*

The Section of Biochemistry, Molecular and Cell Biology at Cornell University seeks to hire a tenure-track **ASSISTANT PROFESSOR** in the area of molecular and cell biology, with a preference for research on mammalian systems. Applicants should have outstanding research credentials and an interest in teaching. Applicant research areas of particular interest include, but are not limited to, nuclear architecture and function, RNA molecular biology, and cellular signal transduction. Applicants should send a description of research interest, a curriculum vitae, and three letters of reference to: **BMCB Search Committee, Biotechnology Building, Cornell University, Ithaca, NY 14853.** We will begin to evaluate applications on December 10 and will continue to entertain applications until the position is filled. *Cornell is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR ECOLOGIST

The Department of Biology at East Carolina University seeks applications for a tenure-track appointment in the area of ecology effective 17 August 1998. The applicant should be committed to undergraduate and graduate (M.S.) teaching, developing an externally funded research program, and rendering appropriate professional service. Teaching obligations include responsibility for undergraduate ecology and at least one graduate course in area of interest. Minimum qualifications include a doctoral degree (Ph.D., or equivalent) in ecology or a related field, and postdoctoral experience. Applicants should mail a curriculum vitae, statement of teaching and research interests, and three letters of recommendation to: **Professor Terry L. West, Chair, Ecologist Search Committee, Department of Biology, East Carolina University, Greenville, NC 27858-4353.** Further inquiries, Telephone: 919-328-1845; e-mail: west@mail.ecu.edu. For information about the University and the Department see website: <http://www.ecu.edu>. Closing date for applications is November 15, 1997.

East Carolina University is an Equal Opportunity/Affirmative Action University. Accommodates individuals with disabilities. Applicants must comply with the Immigration Reform and Control Act. Official transcripts are required upon employment.

Beloit College seeks a Ph.D. Biologist with strong interdisciplinary and international interests to fill a tenure-track position at the **ASSISTANT PROFESSOR** level for fall, 1998. The successful candidate will teach introductory courses in human biology and microbiology, an issues-oriented course for non-science majors, an advanced course in the candidate's specialty, and participate in an interdisciplinary health care studies program. Candidates should be strongly committed to innovative, student-centered, liberal arts education, should have demonstrable research interests, and the ability to include undergraduates in research. Participation in interdisciplinary all-college programs, advising health professions students, and arranging field experiences for students in community and research settings are expected. Applications including a curriculum vitae, teaching and research statements, transcripts, three letters of recommendation, and several reprints should be sent to: **Marc Roy, Biology Search Chair, Beloit College, 700 College Street, Beloit, WI 53511** by November 7, 1997, for full consideration. Beloit College is a selective, residential, liberal arts, institution located on the Wisconsin/Illinois border, close to Chicago, Milwaukee, and Madison. *Beloit College is an Affirmative Action/Equal Opportunity Employer and particularly welcomes applications from women and minorities.*

MICROBIAL ECOLOGIST UNIVERSITY OF RICHMOND

The Department of Biology at this highly selective liberal arts university invites applications for a tenure-track **ASSISTANT PROFESSOR** position to begin August 1998. We seek Ph.D. applicants with broad interests in the area of microbial ecology. Primary teaching responsibilities include microbial ecology, general microbiology, and participation in the biology core program. Development of a research program that actively engages both undergraduates and Master's students is expected. Applicants should submit by December 10, 1997, a curriculum vitae, statements of teaching philosophy and research interests, copies of graduate and undergraduate transcripts, recent publications, and three letters of recommendation to: **Dr. W. John Hayden, Department of Biology, University of Richmond, Richmond, VA 23173-9998.** *The University of Richmond is an Equal Opportunity/Affirmative Action Employer and strongly encourages women and minorities to apply for its positions.*

ASSISTANT PROFESSOR BIOLOGY (TWO). Biology Department of Ithaca College seeks Ph.D.'s for two tenure-eligible positions: environmental toxicology and plant systematics, both to start August, 1998. Candidates will teach and direct undergraduates in research in their specialty and introductory biology. The toxicology position has responsibilities in environmental studies. Teaching and research experience desired. Send curriculum vitae and three letters of recommendation that address teaching and research to: **Search Committee—Toxicology, or Search Committee—Systematics, Biology Department, Ithaca College, Ithaca, NY 14850-7278.** E-mail: (Toxicology) confer@ithaca.edu or (Systematics) tamas@ithaca.edu. Deadline: December 1, 1997. *Ithaca College is an Affirmative Action/Equal Opportunity Employer.*



Yale UNIVERSITY

FULL PROFESSOR IN ECOLOGY

The recently formed **Department of Ecology and Evolutionary Biology at Yale University** seeks to recruit an ecologist at the rank of Full Professor and we invite **applications and nominations** for this new position. Individuals working in any subdiscipline will be considered. Most important criteria in evaluation will be innovative research, leadership qualities, and excellence in teaching. We anticipate further appointments in ecology and the senior ecologist is expected to play a lead role in building strength in this field. Interested candidates should submit a CV including list of publications, a cover letter indicating direction of research, and the names and addresses of four potential evaluators. Both applications and nominations should be sent to:

**Chair, Ecologist Search Committee
Department of Ecology and Evolutionary Biology
Yale University, New Haven, CT 06520-8106**

Yale University is an affirmative action, equal opportunity employer.



Department of Biology Ecologist Animal Physiologist

The Department of Biology of the University of Waterloo invites applications for two **TENURE-TRACK** positions at the **ASSISTANT PROFESSOR** level, one in animal physiology and one in ecology. Applicants must have a Ph.D. and be prepared to establish an active research program. Duties include research, teaching at the undergraduate and graduate levels, and graduate student supervision. In addition to being able to teach either animal physiology or ecology, candidates should be able to teach at least one of environmental toxicology, quantitative ecology/modelling, fisheries, genetics, or immunology.

For the animal physiology position, we are particularly interested in candidates in the areas of environmental toxicology or environmental physiology, or using molecular approaches to explore an aspect of animal physiology.

For the ecology position, we are looking for someone to complement our strong research group in aquatic ecology.

Salary will be commensurate with qualifications and experience. Applicants should send their curriculum vitae, the names of three individuals willing to furnish letters of reference, and an outline (1-2 pages) of their proposed research program to: **Dr. William D. Taylor, Professor and Chair, Department of Biology, Faculty of Science, University of Waterloo, Waterloo, Ontario, N2L 3G1 CANADA.**

The closing date for applications is November 30, 1997.

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities. These appointments are subject to the availability of funds.

Additional information on the Department is available at <http://www.science.uwaterloo.ca/biology/biology.html>.

Ph.D. Scientists are sought in the following areas:

Cancer Pharmacology

We are seeking an individual to supervise a laboratory working as part of a multi-disciplinary team focused on the discovery of novel antitumor agents. Demonstrated experience in pharmacology required, with significant expertise in cell signaling, growth regulation, apoptosis or angiogenesis. Working knowledge of contemporary tumor models/pharmacodynamic endpoints a plus. Strong communication skills expected, as is demonstration of significant achievement as member of a team. Minimum qualifications are 3 years of post-doctoral work in cancer pharmacology or biology; industrial experience a plus. **Job Code: 2275**

Pfizer scientists are involved in some of the most critical research in the world today. As a Fortune 100 company, we have established a product pipeline that is unparalleled, and an intellectual, collaborative environment that inspires scientific achievement. Join us and become a part of the cure.

In addition to a fast-paced, yet collegial environment, we offer very competitive salaries and excellent benefits including relocation assistance. For confidential consideration, please forward resume to: **Employee Resources, Pfizer Inc., Job Code # _____, Central Research Division, Eastern Point Road, Groton, CT 06340. For more information about Pfizer, see us on the Internet at: <http://www.pfizer.com>. We are an equal opportunity employer M/F/D/V.**

Neuroscience/Pharmacology

A position is available for a research scientist with a Ph.D. in Neuroscience, Pharmacology or related discipline, to join a group engaged in the discovery of novel agents to treat neurodegenerative diseases, especially Alzheimer's and Parkinson's disease. We seek an individual skilled in either whole cell or in vivo models of neurodegenerative diseases, with an emphasis on biochemical endpoints. At least 2 years of post-doctoral experience are required, with preference given to applicants having strong written and verbal communication skills who demonstrate potential for project leadership. **Job Code: 2277**



We're part of the cure.



**St. Jude Children's
Research Hospital**

ALSAC • Danny Thomas, Founder

POSTDOCTORAL TRAINING IN IMMUNOLOGY

Immunology Department Faculty:

Peter C. Doherty (Chair)

Immunity in acute and persistent viral infections.

William S. Walker (Vice Chair)

Immunobiology of macrophages and microglia.

Mary Ellen Conley

Identification and characterization of genes involved in B cell Development.

Marcy Blackman

Effects of superantigens on viral immunity.

Chris Coleclough

Regulation of antibody responses.

Julia L. Hurwitz

Vaccine development and immunotherapy.

David L. Woodland

T cell immunity to viral infection.

Dario A.A. Vignali

T cell ontogeny and subset development, TCR structure and signal transduction.

Applicants should have a Ph.D. or M.D., expertise in basic immunology, virology, animal cell biology and/or molecular genetics, and fluency in English. Please send curriculum vitae, statement of research interest, and names, addresses and phone numbers of three references to: **Department of Immunology, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38105. SJCRH is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT PROFESSORS DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY University of British Columbia

Applications are invited for two tenure-track positions of Assistant Professor in the Department of Microbiology and Immunology.

The successful applicant for the first position should have research interests in either bioinformatics, protein engineering, or antibiotics and will be expected to teach courses in either microbial physiology or biotechnology.

The successful applicant for the second position should have research interests in molecular virology and will be required to participate in teaching both introductory and advanced courses in virology. It is possible that a more senior appointment can be made jointly with the Department of Pediatrics for someone with an established research program and research interests in pediatric virology. The successful candidate for both positions will be expected to interact with existing members of the Department.

Starting date of appointment for both positions will be July 1, 1998. The positions are subject to final budgetary approval.

Please submit application, curriculum vitae, together with the names of three referees to:

Dr. Gerald Weeks, Professor and Head
Department of Microbiology and Immunology
University of British Columbia
300—6174 University Boulevard
Vancouver, British Columbia
V6T 1Z3 Canada

Applications should be received by November 15, 1997. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents. The University of British Columbia hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply.

TWO ASSISTANT PROFESSOR POSITIONS GENETICS AND INVERTEBRATE PHYSIOLOGY

Eckerd College seeks Ph.D. applicants for two tenure-track Assistant Professor positions to begin fall, 1998. In addition to teaching in the major, both positions require development of a research program accessible to undergraduates and occasional participation in the College's interdisciplinary, values-oriented, general education program. Eckerd College has recently completed a new marine science building and, through grants from HHMI and the Keck and Kresge Foundations, has developed state-of-the-art teaching/research labs in biology and marine science. Applicants should send a letter describing qualifications, curriculum vitae, undergraduate and graduate transcripts, three confidential recommendations, and teaching evaluations (if available) by 15 November 1997 to faculty listed below at: Eckerd College, 4200 54th Avenue South, St. Petersburg, FL 33711.

MARINE INVERTEBRATE PHYSIOLOGIST. Teaching will include an introductory-level marine invertebrate zoology course, and a junior-level, comparative and/or environmental physiology course that utilizes cellular and subcellular approaches. Send applications to: **Dr. Peter A. Meylan.**

GENETICIST. Teaching will include undergraduate courses in genetics and cell biology utilizing modern molecular approaches in eukaryotes. Send applications to: **Dr. Guy Bradley.**

Equal Opportunity Employer; women and minorities are encouraged to apply.

MOLECULAR BIOLOGY/BIOCHEMISTRY

The Department of Biology at the University of Missouri-St. Louis invites applications for a tenure-track **ASSISTANT PROFESSOR** position beginning fall 1998. The successful candidate must have a Ph.D. and postdoctoral experience in molecular biology/biochemistry, will be expected to establish a vigorous extramurally funded research program, and participate in teaching graduate and undergraduate courses in these areas. Please submit a curriculum vitae, statements of research plans and teaching interests, and have three letters of reference sent to: **Molecular Biology Search Committee, Department of Biology, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, MO 63121-4499.** Review of applicants will begin on December 1, 1997. *The University of Missouri-St. Louis is an Affirmative Action, Equal Opportunity Employer committed to excellence through diversity.*

POSITIONS OPEN

ASSISTANT PROFESSOR BIOLOGICAL SCIENCES

The Department of Biological Sciences at Southern Methodist University seeks a candidate to fill a tenure-track position at the level of Assistant Professor beginning in the fall of 1998. Preference will be given to individuals trained in molecular biology/biochemistry. Candidates must have completed a Ph.D. in a relevant field, have substantial postdoctoral experience, and clear potential for excellence in research and teaching. The successful candidate will be expected to develop and maintain a vigorous research program supported by extramural funding, train graduate students, and participate in teaching an undergraduate course in animal physiology. Women and minority candidates are especially encouraged to apply. Applicants should submit curriculum vitae, a statement of future research interests, and request three letters of recommendation be sent to: **Dr. John Ubelaker, Department of Biological Sciences, P.O. Box 750376, Dallas, TX 75275-0376.** Review of applications will start December 1, 1997. To ensure full consideration for the position, the application must be postmarked on or before December 1, 1997, but the committee will continue to accept applications until the position is filled. The committee will notify applicants of its employment decision after the position is filled. For more information about the department, please visit our website: <http://www.smu.edu/~biology>. *Southern Methodist University is an Affirmative Action/Equal Opportunity Employer.*

ZEBRAFISH DEVELOPMENTAL BIOLOGIST

The Department of Biology at Emory University, having successfully recruited one faculty member in this area, is seeking an additional applicant who studies vertebrate development in the zebrafish. The position is for a tenure-track appointment at the **ASSISTANT PROFESSOR** level although an appointment at a higher rank will be considered in exceptional circumstances. A state-of-the-art fish-rearing facility is under construction and the successful applicant will be provided with competitive start-up funds. The candidate must establish a strong research program and will teach undergraduates in the Biology Department and graduate students in appropriate programs of the interdepartmental Graduate Division of Biological and Biomedical Sciences. Applicants should submit a curriculum vitae, a statement detailing their current research and future plans, and arrange for three letters of recommendation to be sent to: **Dr. Steven L'Hernault, Zebrafish Search, Department of Biology, Emory University, 1510 Clifton Road, Atlanta, GA 30322.** Telephone: 404-727-4234; FAX: 404-727-2880; e-mail: zebra_srch@biology.emory.edu. Review of completed applications will begin January 2, 1997. Information on the Biology Department and Emory's graduate programs can be obtained from the following websites: <http://www.emory.edu/BIOLOGY/index.htm> and <http://www.service.emory.edu/BIOMED/GDBBSHomePage.html>.

Emory is an Equal Opportunity/Affirmative Action Employer.

TENURE-TRACK ASSISTANT PROFESSORSHIP IN SCIENCE WRITING AT MIT

MIT's Program in Writing and Humanistic Studies, in the School of Humanities and Social Science, is seeking a person for a tenure-track Assistant Professorship in science writing, beginning in September 1998. Candidates should have demonstrated high accomplishment in newspaper journalism, magazine essays, or full-length books on science, aimed at the educated public. Also desirable but not required are teaching experience and some academic education in a field of science. We are seeking a person who can not only communicate science to the public, but also connect science to broad humanistic, historical, and social concerns. The new Assistant Professor will be expected to teach various courses in science writing and conduct an active professional career in science writing. In addition to science writing, our Program offers courses in creative writing, general expository writing, and digital communication. Our faculty includes poets, novelists, essayists, journalists, historians, biographers, and scientists. Please send a letter of application, curriculum vitae, and the names of three people familiar with your work, by December 1, 1997, to: **Professor Alan Lightman, Room 14E-303, Massachusetts Institute of Technology, Cambridge, MA 02139.** MIT is an Affirmative Action, Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOCHEMISTRY AND MOLECULAR BIOLOGY Indiana University, Bloomington

The Medical Sciences Program of the Indiana University School of Medicine in Bloomington invites applications from candidates with at least two years of postdoctoral experience and a strong publication record for a 12-month, tenure-track position as Assistant Professor of biochemistry and molecular biology starting July, 1998. The successful applicant is expected to participate in teaching biochemistry to medical and graduate students and to establish an extramurally funded, independent research program asking questions of fundamental importance to human neoplastic disease. The Program is seeking an individual with interest in all aspects of the molecular basis of signal transduction or membrane biochemistry in mammalian systems. The Program also wants to strengthen existing ties with the NCI-designated Cancer Research Institute of Indiana University. Preference will be given to those candidates who can document both teaching and research expertise and whose research interests complement those of current faculty. More information may be obtained from website: <http://www.indiana.edu/~medsci/>. Applicants should send a curriculum vitae, a statement of teaching commitment and philosophy, a summary of current and anticipated research activities, and arrange to have three letters of reference sent by November 15, 1997, to: **Search Committee, Medical Sciences Program, Indiana University School of Medicine, Myers Hall, Bloomington, IN 47405-4201.**

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

RESEARCH ASSISTANT PROFESSORS NMR SPECTROSCOPY OF PROTEINS University of Pennsylvania School of Medicine Department of Biochemistry and Biophysics

The Department of Biochemistry and Biophysics invites applications for one to two non-tenure-track Research Assistant Professor positions. Candidates must have a Ph.D. and at least two years of relevant postdoctoral experience in the application of high resolution NMR and related methods to the analysis of biopolymer structure and dynamics. The candidates are expected to participate in the research program of the sponsoring faculty member which focuses on NMR-based studies of structure-function relationships in calcium and heme binding proteins, protein folding, stability, design and dynamics, and development of NMR methodologies. The candidates are also expected to establish their own independently funded research effort and to facilitate the maintenance of an advanced capability in NMR spectroscopy in the School of Medicine. Candidates should provide a curriculum vitae, a statement of research interests and goals, and arrange to have three letters of reference sent by December 1, 1997, to: **Ms. Ruth Keris, Department of Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, PA 19104-6059.** Appointments are anticipated to begin on or about April 1, 1998. *The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer and invites applications from minority and women candidates.*

GENETICIST

Applications are invited for a tenure-track position at the **ASSISTANT PROFESSOR** level beginning September 1998. We seek a Eukaryotic Geneticist with a background in cell and molecular biology to teach lecture and laboratory courses in genetics, cell and molecular biology, and specialty courses in the candidate's area of expertise. The individual should be committed to teaching undergraduates and graduates at an ethnically and culturally diverse campus. The candidate will develop an externally funded, student-oriented research program and participate in our M.S. program. A Ph.D. is required; postdoctoral research and teaching experience are preferred. Send curriculum vitae, statement of research and teaching interests, copies of recent publications, and three letters of recommendation to: **Genetics Search Committee, Department of Biological Sciences, California State University, Hayward, CA 94542.** Application review begins November 17, 1997. Website: <http://www.csuhayward.edu>. *California State University, Hayward, is an Equal Opportunity Employer and does not discriminate on the basis of age, race, color, national origin, sex, sexual orientation, or disability.*



University of Maine
The State's Center of Learning, Discovery,
and Service to the Public

The School of Marine Sciences, with >40 faculty in various marine disciplines, seeks five new faculty in the areas of aquaculture and fisheries to complement existing strengths in oceanography and marine biology. All are expected to contribute to undergraduate and graduate curricula, develop externally funded research programs, and provide service to the state. Brief descriptions are provided below. Refer to "News & Events" at web site: (<http://www.ume.maine.edu/~marine/marine.html>) for complete information. Review of applications will begin 15 November and continue until suitable candidates are identified. Send cover letter, vitae, and names and addresses of three referees to the appropriate search committee chair listed below at: **School of Marine Sciences, University of Maine, 5741 Libby Hall, Orono, ME 04469-5741.**

Pathogenic Microbiologist: Tenure-track, academic year, Assistant/Associate Professor with broad training in microbiology, virology, immunology, and experience working with diseases of marine organisms. Contact: **Dr. John Singer** (jsinger@maine.maine.edu).

Biological or Chemical Oceanographer: Tenure-track, academic year, Assistant/Associate Professor with background in biological or chemical oceanography applicable to aquaculture. Contact: **Dr. David Townsend** (davidt@maine.maine.edu).

Quantitative Geneticist: Tenure-track, academic year, Assistant/Associate Professor focusing on quantitative genetics of commercially important marine organisms. Contact: **Dr. Irv Kornfield** (irvk@maine.maine.edu).

Resource Economist: Non-tenure-track (2-yr. appointment), academic year, rank open. Experience in commercial fisheries co-management. Contact: **Dr. James Wilson** (jwilson@maine.maine.edu).

Population Dynamicist: Non-tenure-track (2-yr. appointment), academic year, rank open. Strong background in fisheries assessment, ecology, or population biology. Contact: **Dr. James McCleave** (mccleave@maine.maine.edu).

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**Manager of Bioinformatics
Research/Information Systems**

As Manager of Bioinformatics, you'll supervise computer infrastructure support to Genomics and Molecular Biology, as well as serve as the primary focal point between the scientific community and information technology services, (data center, desktop computing and information engineering). In addition, you'll provide appropriate staffing, project management and applications support within a matrix organization of several scientific groups; and plan, initiate, develop and support systems activities for Molecular Biology and other scientific venues to ensure client satisfaction.

Qualifications include a MS in Computer Science, a scientific discipline or equivalent education/experience in Science and Information Technology, along with nine years' IT experience. Qualified candidates must possess extensive project management experience, including MicroSoft client/server applications, relational databases, UNIX, C, PERL and Internet/Intranet Development. A background in standard sequence analysis methods/programs, GCG is desirable.

Interested individuals mail, fax or e-mail your resume* to: **Parke-Davis Pharmaceutical Research, Human Resources Department, Job Code: DB-97317, 2800 Plymouth Road, Ann Arbor, MI 48105. Fax: (313) 998-3394. E-mail: resume@aa.wl.com**

*Submit resume on laser-quality white paper, with legible 10 point or larger type, and avoid boldface, italics, borders, etc.

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**UCLA Faculty Position
Molecular and Cellular
Cardiovascular Biology**

The Cardiovascular Research Laboratory at the UCLA School of Medicine invites applications for an In Residence faculty position, preferably at the level of Assistant Professor, for an individual with a Ph.D. and/or M.D. degree interested in applying molecular approaches to the cardiovascular system. The appointment will be in the appropriate academic department in the School. Candidates are expected to have strong training and background in the biomedical sciences. The successful candidate will be expected to develop an independent research program as part of the UCLA Cardiovascular Research Laboratory and to participate in the teaching mission of the School. The Laboratory is well supported by endowed funds, and provides an excellent environment to build an academic career. This includes laboratory space, set-up funds, core resources, and other active research programs in molecular, membrane, cell, and cardiovascular biology. Applicants should send a letter with a statement of research interests and goals, their curriculum vitae, and names of three references to: **Chair, Cardiovascular Search Committee, 3641 MRL Building, UCLA School of Medicine, 675 Circle Drive South, Los Angeles, CA 90095-1760. E-mail: kimberly@cvrl.ucla.edu.**

Review of applications will begin November 1, 1997, and will continue until a suitable candidate has been identified.

The University of California, Los Angeles is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

**ASSISTANT
PROFESSOR**

The MIT Department of Brain and Cognitive Sciences anticipates making a

tenure-track appointment in computational brain and cognitive sciences at the Assistant Professor level.

Candidates should have a strong mathematical background and an active research interest in the mathematical modeling of specific biophysical, neural or cognitive phenomena. Individuals whose research focuses on learning and memory at the level of neurons and networks of neurons are especially encouraged to apply. Responsibilities include graduate and undergraduate teaching and research supervision. Applications should include a brief cover letter stating the candidate's research and teaching interests, a vita, three letters of recommendation, and representative reprints.

Send applications by December 21, 1997 to: **Chair, Faculty Search Committee/Computation, Department of Brain and Cognitive Sciences, E25-406, MIT, 77 Massachusetts Avenue, Cambridge, MA 02139. Qualified women and minority candidates are especially encouraged to apply.**



Massachusetts Institute of Technology
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**CELLULAR AND VIRAL IMMUNOLOGY:
BARBARA REHERMANN**

Postdoctoral position to study the immunopathogenesis of hepatitis B and C (helper and CTL response, viral mechanisms of escape from immune surveillance). Experience in cellular and molecular immunology, especially in animal models, antigen processing or signal transduction strongly preferred.

**IRON METABOLISM AND TOXICITY:
CAROLINE PHILPOTT**

Postdoctoral position to study the effects of excess iron uptake in human cells and yeast. We utilize a genetic model of iron intoxication in yeast to investigate the mechanism by which excess iron leads to cell cycle arrest and DNA damage. Research efforts will be expanded to include the human disease of iron overload, hemochromatosis. Experience in yeast genetics and/or molecular biology required.

Candidates should have a Ph.D. with less than 5 years of postdoctoral experience. Application should be sent to:

LIVER DISEASES SECTION, NATIONAL INSTITUTE OF DIABETES, DIGESTIVE & KIDNEY DISEASES, NATIONAL INSTITUTES OF HEALTH, BLDG. 10, ROOM 9B16, 10 CENTER DRIVE, BETHESDA, MD 20892-1800; FAX: 301-402-0491.

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POSITIONS OPEN

NUTRITIONAL SCIENTIST UNIVERSITY OF WISCONSIN-GREEN BAY

The Human Biology department invites applications for a tenure-track position as **ASSISTANT PROFESSOR**. Candidates must have a Ph.D. in nutrition or related field. R.D. desired. Responsibilities include teaching undergraduate courses in human nutrition and nutritional biochemistry in an interdisciplinary program that offers two CAADE/ADA-approved dietetic programs. The successful candidate will demonstrate potential for excellence in teaching and ability to establish a research program and guide undergraduate research. Normal teaching load is 21 credits per year. Review of applications will begin on December 1, 1997, and position will remain open until filled. Send letter of application describing teaching and research interests, curriculum vitae, transcripts of graduate work, names, addresses, and telephone numbers of three current references, and recent reprints to: **Nutritional Scientist Search Committee, ES 301, University of Wisconsin-Green Bay, 2420 Nicolet Drive, Green Bay, WI 54311-7001. Telephone: 920-465-2681; FAX: 920-465-2769.**

UWGB is an Affirmative Action/Equal Opportunity Employer. Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality.

Miami University-Oxford Campus, Department of Chemistry and Biochemistry invites applicants with Ph.D. degree for a tenure-track **ASSISTANT PROFESSOR** position in experimental physical chemistry starting in August 1998. The successful candidate will have a demonstrated research interest in biophysical chemistry with interests in areas such as spectroscopy or surface science. The applicant should have a strong commitment to developing an externally funded research program and to teaching at the undergraduate and graduate levels, including modernizing the experimental physical chemistry lab course. Qualified persons should submit their curriculum vitae and a detailed description of their research interests, and arrange for three letters of recommendation to be sent to: **Physical Chemistry Search Committee, Department of Chemistry and Biochemistry, Miami University, Oxford, OH 45056.** More information concerning the department and requirements for this position can be found at our website: <http://miavx1.muohio.edu/~CHEMCWIS/>. Review of complete applications will begin November 14, 1997. The search will continue until the position is filled. *Because Miami University is an Equal Opportunity/Affirmative Action Employer, women and minorities are particularly encouraged to apply for this position.*

ASSISTANT PROFESSOR DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY Medical College of Ohio

Applications are invited for a tenure-track, full-time faculty position from individuals who have a doctoral degree, postdoctoral experience, and record of research productivity. The successful candidate is expected to develop an independent, extramurally funded research program and participate in teaching. We are particularly interested in applicants who are focused on microbial pathogen-host interactions at the cellular level. Competitive salary, space, and start-up funds will be provided. Applicants should send a statement of research goals with representative reprints, a curriculum vitae, and three letters of recommendation to: **Garry T. Cole, Ph.D., Chairman, Department of Microbiology and Immunology, Medical College of Ohio, 3055 Arlington Avenue, Toledo, OH 43614-5806.** Deadline is November 1, 1997. Visit our website: <http://www.mco.edu:80/micro/index.html>. *Affirmative Action/Equal Opportunity Employer.*

INFECTIOUS DISEASES

ASSISTANT PROFESSOR-level position available. Board-eligible/Board-certified in internal medicine and infectious diseases required. Majority of time involves clinic work including Minority Outreach Intervention Project. Will participate in teaching, committees, and medical staff meetings. Serve as an attending physician in internal medicine; participate in infectious diseases residency program. Interested candidates should submit curriculum vitae to: **Sharon Gaik, Department of Medicine, The University of Illinois at Chicago, 840 South Wood Street (M/C 787), Chicago, IL 60612.** *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

BIOCHEMIST ST. OLAF COLLEGE

Tenure-track biochemistry position (**ASSISTANT or ASSOCIATE PROFESSOR**) beginning September 1998. The St. Olaf College Chemistry Department invites applicants with strong interest in quality undergraduate teaching, commitment to liberal arts education, and promise of continued scholarly activity and professional growth (including a research program that involves undergraduates). Candidates with interdisciplinary teaching and research interests are especially encouraged to apply. Ph.D. in biochemistry or chemistry required. Send curriculum vitae, statement of teaching philosophy, summary of research interests and goals, undergraduate and graduate transcripts, and three letters of reference to: **Gary Miessler, Chair, Chemistry Department, St. Olaf College, Northfield, MN 55057-1098.** Review of completed applications will begin on November 24 and will continue until the position is filled. *A liberal arts college of the Lutheran Church (ELCA), St. Olaf is an Equal Opportunity Employer and actively seeks diversity in its students, faculty, and staff.*

EVOLUTIONARY ECOLOGIST, tenure-track **ASSISTANT PROFESSOR** position to begin September, 1998. The Department of Biology at the College of New Jersey (formerly Trenton State College) is seeking an Evolutionary Ecologist who is trained in and applies molecular techniques and the principles of population genetics to the study of the conservation and/or evolution of natural populations. Earned Ph.D. required along with a demonstrated potential for excellence in teaching. Candidate must have a strong commitment to undergraduate education and a proven potential to establish an active research program involving students. Teaching areas will include ecology, evolution, and population/conservation biology. Send curriculum vitae, statement of research interests, description of teaching experience and philosophy, transcripts, and three letters of recommendation to: **Dr. Kayne, EE Search Committee, Department of Biology, The College of New Jersey, P.O. Box 7718, Ewing, NJ 08628-0718.** Résumé review begins December 8 and continues until position is filled. *The College is an Equal Opportunity Employer.*

ASSISTANT PROFESSOR. Tenure-track position open: primary qualification in vertebrate anatomy and physiology; experience in human anatomy and physiology desirable. Candidate should be able to teach in the general biology sequence and be qualified to offer courses in the core science sequence. Supervise undergraduate research projects. Ph.D. required, postdoctoral teaching experience is desirable. Experience in an urban academic setting is a plus. Applications, including curriculum vitae, letters of three references, and all transcripts should be submitted to: **Dr. Michael E. Held, Chair, Biology, Saint Peter's College, Jersey City, NJ 07306.** Application deadline is October 20, 1997. *Saint Peter's College is an Equal Opportunity/Affirmative Action Employer and complies with Title IX of the Education Amendments of 1972 and with Section 504 of the Rehabilitation Act of 1973.*

FACULTY CHEMIST

A Chemist with interest and experience in synthesizing PET/SPECT compounds for cancer research is urgently needed. A working skill in iodination and chelation is desirable. Excellent facilities and resources are available for productive and interdisciplinary research activities. Appointment at **ASSISTANT to ASSOCIATE PROFESSOR** depending on qualifications. Qualified applicants should contact: **Dr. Abass Alavi, Chief of the Division of Nuclear Medicine, Department of Radiology, Hospital of the University of Pennsylvania, Room 117-Donner Building, 3400 Spruce Street, Philadelphia, PA 19104.** *The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.*

The Department of Chemistry of The University of Chicago invites applications from outstanding individuals for the position of **ASSISTANT PROFESSOR OF CHEMISTRY**. This search is in the areas of theoretical, physical, inorganic, organic, and polymer chemistry. Postdoctoral experience is preferred. Applicants should submit a curriculum vitae, a list of publications, and a succinct outline of their research plans. Candidates should arrange for three letters of recommendation to be sent directly to: **James R. Norris, Jr., Chairman, Department of Chemistry, The University of Chicago, 5735 South Ellis Avenue, Chicago, IL 60637.** Deadline for application materials is October 31, 1997. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

CELL/MOLECULAR BIOLOGIST FORDHAM UNIVERSITY

Individuals are invited to apply for a tenure-track position at the **ASSOCIATE PROFESSOR** level. The department has an active research program and provides excellent physical facilities, state-of-the-art equipment, a stimulating research environment, start-up funds, and competitive salaries and benefits. Candidates should possess expertise in the area of cell/molecular biology and have a grant-supported research effort underway. Individuals with research programs in immunology are especially encouraged to apply. The appointee will be expected to establish an active research program and to participate in teaching at the graduate and undergraduate levels. Please submit a curriculum vitae and the names and addresses of three references by December 1, 1997, to: **Dr. Berish Y. Rubin, Chairman, Department of Biological Sciences, Fordham University, Bronx, NY 10458.** *Fordham University is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT RESEARCH PROFESSOR

The Department of Biochemistry and Molecular Biology at Marshall University School of Medicine invites applications for a non-tenure-track faculty position. Requirements include a Ph.D. in biochemistry or related area and three to four years of postdoctoral experience in the area of RAR/RXR, PPAR, VDR, or PKC function in the regulation of growth and differentiation. The appointee will interact with a funded laboratory studying the role of retinoids in tumor cell differentiation and will have the opportunity to develop their own independent research program. Please send curriculum vitae and names of three references to: **Dr. Richard M. Niles, Chair, Search Committee, Department of Biochemistry and Molecular Biology, Marshall University School of Medicine, 1542 Spring Valley Drive, Huntington, WV 25755.** *Marshall University is an Equal Opportunity/Affirmative Action Employer. Position will be open until filled.*

The Department of Pharmacology and Toxicology at the Medical College of Virginia, Virginia Commonwealth University seeks applications for a non-tenure-track **ASSISTANT PROFESSOR**. Primary responsibility will be to conduct immunotoxicological research on the ability of drugs and chemicals to induce hypersensitivity. Applicant will participate in and assist in directing the NIEHS-sponsored immunotoxicology research program. Must secure extramural research support in immunotoxicology and teach to graduate and professional students. Candidate must have a Ph.D. in pharmacology, toxicology, or immunology and at least two years of related postdoctoral training. Send a curriculum vitae, statement of interests, and list of three references by November 15 to: **Dr. George Kunos (F6150), P.O. Box 980613, Richmond, VA 23298-0613.** Position description available. *VCU is an Equal Opportunity/Affirmative Action Employer and encourages women, minorities, and persons with disability to apply.*

UNIVERSITY OF SOUTH CAROLINA- SPARTANBURG COLLEGE OF ARTS AND SCIENCES 800 University Way Spartanburg, SC 29303

ASSISTANT PROFESSOR OF BIOLOGY to begin August 16, 1998. Ph.D. required for tenure-track position. Preference given to candidates in anatomy and physiology background in introductory biology (for both majors and non-majors) and experience participating in a research program for undergraduates desirable.

Send curriculum vitae, official undergraduate and graduate transcripts, and three letters of reference to: **Dean's Office.** *University of South Carolina is an Affirmative Action/Equal Opportunity Institution.* Review of applications begins October 15, 1997, and will continue until positions are filled. Salary is competitive.

TENURE-TRACK ASSISTANT PROFESSOR

Teaching responsibilities include bacteriology, immunology, an introductory course, and other courses in the person's specialty. Other service includes advising and serving on faculty committees. Active involvement of undergraduates in ongoing research is encouraged. Ph.D. in an appropriate area of biology and a commitment to undergraduate teaching and research in a liberal arts setting are required. Send letter of application, résumé, and names, addresses, and telephone numbers of three references to: **Dr. Maureen Franklin, Interim Academic Dean, Doane College, Crete, NE 68333.** Review of applications will begin October 31. *Doane College is an Equal Opportunity/Affirmative Action Employer.*

BIOLOGICAL SCIENCES

ASSISTANT PROFESSOR/ MICROBIOLOGIST

Fall 1998-Tenure Track; Teach Microbiology and introductory Biology; develop and teach courses in areas of specialization; and conduct research appropriate to the involvement of Undergraduate and Master's level students. Must have earned Ph.D. or award of Ph.D. no later than August 1998. Commitment to undergraduate and graduate education required. Credentials and experience comparable to the above will also be considered.

Please send letter of application, statement of teaching and research goals, and resume, with names, addresses, and telephone numbers of 3 references to: **Dr. Leeds M. Carluccio, Chairperson, Department of Biological Sciences, CENTRAL CONNECTICUT STATE UNIVERSITY, New Britain, CT 06050-4010.**

CCSU aggressively pursues a program of equal employment and educational opportunity and affirmative action. Members of all underrepresented groups, women, veterans, and persons with disabilities are invited and encouraged to apply.



Seton Hall University Assistant Professor Molecular Biologist

The Department of Biology is seeking applications for a tenure track position beginning September 1998. The successful candidate must have a Ph.D., post-doctoral experience, demonstrated expertise in molecular biology and microbiology and will be expected to establish an independent research program. Teaching responsibilities include two courses and one lab per semester; courses will include undergraduate and graduate molecular biology and other appropriate courses in microbiology according to area of expertise.

Interested candidates should send or fax curriculum vitae, research plans and needs, as well as a list of three references by November 24, 1997 to:

**Chair, Search Committee
Biology Department
Seton Hall University
400 South Orange Avenue
South Orange, NJ 07079
FAX: 973-761-9772**

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NATIONAL INSTITUTES OF HEALTH

Undergraduate Scholarship Program (UGSP)

Qualified undergraduates can train and be mentored at the cutting edge of biomedical research while receiving scholarship support.

The UGSP is sponsored by the National Institutes of Health (NIH), the Federal Government's lead biomedical research and research training agency. NIH offers scholarships to qualified individuals who are committed to a career in biomedical research.

Scholarships up to \$20,000 per year support tuition, educational, and qualified living expenses (room, board, transportation) while students pursue an undergraduate degree.

During each year of the award, scholars serve for 10 weeks (with salary/benefits) as employees in NIH research laboratories. They are assigned mentors, participate in seminars and programs available to all NIH researchers, and are provided with housing and transportation. After graduation, they serve 1 year of full-time employment at NIH for each year of scholarship support.

Interested students should apply if they:

- Are committed to a career in biomedical research;
- Are from a disadvantaged background;
- Have a GPA of 3.5 or are in the top 5 percent of their class;
- Are a U.S. citizen, national, or permanent resident;
- Are enrolled or accepted for enrollment as a full-time student at a qualified accredited institution.

This is a special opportunity for special students.

For more information, contact

NIH/OD/OIR/OLRS
UGSP
7550 Wisconsin Avenue, Room 604
Bethesda, MD 20892-9121

Phone: 800-528-7689

Fax: 301-402-8098

e-mail: ugsp@nih.gov

TTY: 1-888-352-3001

<http://ugsp.info.nih.gov>



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W
In the thirteen years since our opening, the Whitehead Institute has become a prominent resource in the world of biological research, and an integral part of MIT's teaching community. We attract the brightest scientists with promising research agendas, and then give them the freedom to pursue their own dreams. The results are nothing short of extraordinary. Join us.

Electron Microscopy Technician

• Seeking an experienced light and electron microscopy technician to manage a state-of-the-art microscope facility. Requires a BS in biological sciences or equivalent education and experience. Must have experience with sample preparation and sample sectioning for transmission electron microscopy including negative stain and immunoEM and have experience with fluorescence, confocal, and time-lapse microscopy.

We offer excellent salaries, generous benefits (including tuition reimbursement), interaction with the MIT community, and a convenient location.

Please send resumes to: Whitehead Institute for Biomedical Research, Human Resources Department, Ref. EM-97, Nine Cambridge Center, Cambridge, MA 02142. Equal Opportunity Employer.

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WHITEHEAD INSTITUTE

Assistant Professor Massachusetts General Hospital Cancer Center Harvard Medical School

The Massachusetts General Hospital Cancer Center and Harvard Medical School have an opening for a tenure-track appointment at the level of Assistant Professor. The MGH Cancer Center continues to expand its interactive basic research program as well as its efforts in translational research. Applicants should hold the degree of Ph.D., M.D./Ph.D., or M.D. and should have sufficient research experience to demonstrate a strong promise of continued success. Resources are available to develop a strong program in contemporary cellular and molecular biology, and all areas that relate to cancer research will be considered.

The position will be a joint appointment between the Department of Pathology at Harvard Medical School and the MGH Cancer Center. The successful candidate will become a member of the Biology and Biomedical Sciences Program, one of the graduate training programs at Harvard Medical School.

Applicants should submit a curriculum vitae, bibliography, and a brief statement of past research experience and future goals. Four letters of recommendation should be sent separately. Deadline is November 30, 1997. All inquiries should be addressed to:

**Ed Harlow
Search Committee Chair
MGH Cancer Center, 149-7330
Building 149, 13th Street
Charlestown, MA 02129**

Harvard University/Massachusetts General Hospital are Equal Opportunity/Affirmative Action Employers. Qualified women and minorities are encouraged to apply.

POSITIONS OPEN

FACULTY POSITION in molecular neurobiology. The Department of Veterinary and Comparative Anatomy, Pharmacology and Physiology (VCAPP), Washington State University, seeks to fill one or two tenure-track positions. Candidates must have or demonstrate the ability to establish and continue a strong, extramurally funded research program. They must provide service to the department by participating in teaching and departmental and/or college committees. Rank, tenure status, and terms of appointment will depend on qualifications and experience. Candidates must have a Ph.D. or D.V.M.-Ph.D. or equivalent, extensive training and research experience in molecular neurobiology, a minimum of two to three years of postdoctoral training, and evidence of accomplishment in research and teaching. VCAPP has 25 full-time and 47 adjunct faculty and has a strong research focus in sleep research, drug abuse, feeding research, neuroendocrinology, neuroimmunology, animal behavior, and reproduction and in cellular, cardiovascular, and exercise physiology. Courses in anatomy, pharmacology, physiology, toxicology, and neuroscience are offered to undergraduate, veterinary, and graduate students. To apply for position send letter of application which indicates which rank you are applying for (ASSISTANT, ASSOCIATE, FULL PROFESSOR), curriculum vitae, list of publications, description of teaching experience, summary of research interest, and the names, addresses, and telephone numbers of three references to: Search Committee, Department of VCAPP, Washington State University, Pullman, WA 99164-6520 by January 1, 1998. Additional information can be obtained from e-mail: bmorton@vetmed.wsu.edu. WSU is an Equal Opportunity/Affirmative Action Employer. Members of ethnic minorities, women, and persons of disability, Vietnam-era and disabled veterans, and/or persons age 40 and over are encouraged to apply.

DIRECTOR PURDUE CANCER CENTER

Purdue University seeks an individual with vision and demonstrated leadership of the position of Director of the Purdue Cancer Center. The Director should hold a Ph.D. or equivalent degree in a physical or life science and must be a well-established scientist with a distinguished record of scholarly and scientific accomplishment in basic cancer research. Administrative experience in the leadership of a multi-investigator research program is desirable. The Director reports to the Vice President for Research and works closely with academic Deans, Department Heads, and the Cancer Center leadership in the administration of the program. The position carries a 12-month appointment at the rank of Professor and includes an academic appointment in a department appropriate to the individual's research and teaching expertise. The Purdue Cancer Center, an NCI-designated basic/laboratory Center, focuses the diverse basic research strengths of the university on elucidating the molecular events involved in cell transformation as the basis for new approaches to the prevention, diagnosis, and therapy of cancer. Research is focused in four major program areas: cell growth and differentiation, experimental therapeutics and diagnostics, structural biology, and carcinogenesis.

Applicants should submit a complete curriculum vitae and the names of three references to: Search Committee, Purdue University Cancer Center, Hansen Life Sciences Building, Purdue University, West Lafayette, IN 47907-1524. Purdue University is an Equal Opportunity/Equal Access University.

RESEARCH BIOLOGIST

USDA, Agricultural Research Service—Tropical Fruit, Vegetable, and Ornamental Crop Research Laboratory, in Hilo, Hawaii, is seeking a full-time Research Biologist, GS-0414-11/12, to research and develop integrated pest management systems and quarantine treatment methods for Hawaii ornamental crops of economic and export importance. The incumbent selects important and promising areas of research, and develops research objectives and plans within guidelines and with input from clientele. The research assignment is considered one-half time commodity quarantine treatments and one-half time biology and control. Salary range \$35,766 to \$55,760 per annum (plus 15 percent COLA). The application deadline is October 27, 1997. Additional information on job requirements and application procedures can be obtained from the ARS website: www.ars.usda.gov, or call Barbara Ueda at Telephone: 808-959-4301 between 8:00 a.m. and 12 noon, Hawaiian time, Monday through Friday. ARS is an Equal Opportunity Employer; women and minorities are encouraged to apply. U.S. citizenship is required.

POSITIONS OPEN

BioGenex, a leader in development, manufacture, marketing of high quality cellular and molecular diagnostic systems, is expanding. We have positions available for dedicated Research Scientists, in the areas of cell pathology (ref.# CP) and DNA probe technologies (ref.# DPT).

RESEARCH SCIENTISTS

These positions require a Ph.D. degree, and postdoctoral experience in cell biology, molecular biology, immunology, and biochemistry. Working knowledge of molecular cloning, protein expression, antibody development and characterization, immunohistochemistry, and *in situ* hybridization is essential. Requires significant experience in oligonucleotide probe-based diagnostics and signal amplification. Research experience in identification, enrichment, and immobilization of rare cells is a plus. Industrial experience is highly desirable.

BioGenex offers competitive salary and excellent benefits package with 401(k) plan. Send résumé to: Human Resources, BioGenex, 4600 Norris Canyon Road, San Ramon, CA 94583. FAX: 510-275-0580.

FLOW CYTOMETRY SPECIALIST THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

The Flow Cytometry Facility, a multi-user core facility supporting the research of over 60 biomedical laboratories, has an immediate opening for a Flow Cytometry Specialist. Principal functions are to oversee, maintain, and operate two B-D FACScans and provide flow cytometry training and interface to a diverse group of investigators. Operation of a Cytomation, Inc. MoFlo will be a secondary function. The successful applicant needs to have excellent interpersonal and communication skills as well as experience with analytical flow cytometry. Experience with Windows-based computers and software, flow cytometry applications software, and other laboratory skills, e.g., cell culture, protein purification, immunofluorescence staining of cells, microscopy, and DNA technology, is also considered an advantage. Applicants must have at least a B.S. degree preferably in a biological science. The position will initially be a full-time temporary position with the possibility of consideration for appointment to a full-time permanent position to be created. Interested individuals should send their résumé/curriculum vitae and salary requirements to:

Larry W. Arnold, Ph.D.
Department of Microbiology and Immunology
CB#7290
School of Medicine
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599

The University of North Carolina at Chapel Hill is an Equal Opportunity Employer.

RESEARCH SCIENTIST—RESEARCH SOIL SCIENTIST (CHEMISTRY). U.S. Department of Agriculture, ARS, Appalachian Soil and Water Conservation Research Laboratory, (Beckley location), Beaver, West Virginia. Permanent full-time scientist to conduct research projects in the areas of soil nutrient cycling; transformations of soil carbon, nitrogen, and other minerals; and root/soil interactions occurring in disturbed and hill-land soils. Specifically, this position will be to develop and apply concepts and methodology, and study chemical limitations to crop and agroforestry productivity associated with hill-land agriculture. The major focus will be to develop the understanding of the interactions among roots, soil organic matter, minerals, and microflora. Incumbent must have knowledge of rhizosphere ecology, soil and physical chemistry, soil mineralogy, surface and ion precipitation chemistry, metal-organic complexation chemistry; transformation of soil organic matter; modeling and differential calculus; and mathematical and computer methods to understand complex root and soil reactions. A Ph.D. is desirable. U.S. citizenship is required. Salary commensurate with experience \$44,953 to \$69,492 per year (GS 12/13). For information on the research project, contact: Dr. William Clapham, Research Leader on Telephone: 304-256-2858. For copy of application procedures and vacancy announcement, contact: Janie Carr, Telephone: 301-344-4569. ARS is an Equal Opportunity Employer, women and minorities are encouraged.

POSITIONS OPEN

Magainin Pharmaceuticals Inc.

Magainin Pharmaceuticals Inc. is a rapidly developing biopharmaceutical company engaged in research and development of pharmaceuticals against serious diseases. We are seeking a scientist to expand our drug research and development efforts in the following area:

MICROBIOLOGY

Microbiologist needed to supervise laboratory involved in pharmaceutical development, and to participate in microbiology and molecular biology research program.

Ph.D. required, experience in the pharmaceutical industry and molecular biology research preferred.

For consideration, please submit your curriculum vitae to: Human Resources, Magainin Pharmaceuticals Inc., 5110 Campus Drive, Plymouth Meeting, PA 19462. MPI offers excellent compensation and benefits. No phone calls, please. Equal Opportunity Employer.

CO-DIRECTOR FOR TRANSPLANT UNIT

The Section of Hematology/Oncology, University of Illinois at Chicago, is seeking a dynamic individual to assume the role of Co-Director of the bone marrow and stem cell transplantation program. This individual will assume responsibility for innovative treatment strategies in allogeneic transplantation and for the development of clinical and translational research in this area. This person will also be involved in clinical research studies relating to autologous transplantation and cytokine research. This person will have administrative responsibility for the development of an outpatient transplant center.

The individual considered should have extensive experience in the fields of autologous and allogeneic transplantation and should also have experience in the care of recipients of alternative donor transplantation. Experience in the administration of a transplant unit and in dealing with referring physicians and insurance companies in a professional manner is also desired.

The Hematology/Oncology Section at the University of Illinois at Chicago is going through a phase of rapid expansion. The bone marrow transplant unit is dedicated to providing high quality tertiary care and to contributing to the progress of the field by developing innovative treatment approaches and research protocols.

Interested candidates should submit their curriculum vitae and list of references to:

Ronald Hoffman, M.D.
Chief, Section of Hematology/Oncology
Department of Medicine
University of Illinois at Chicago
900 South Ashland (M/C 734)
Chicago, IL 60607

UIC is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSISTANT PROFESSOR MOLECULAR VIROLOGY

This position offers the opportunity to study the molecular mechanisms responsible for the pathogenesis of human parainfluenza viruses. The successful applicant will be expected to work independently on our laboratory's NIH-funded projects focusing on the interaction of human parainfluenza virus type 3 with the host cell, and to participate in postdoctoral and graduate training. A strong background in molecular and cell biology research is essential, and experience in either receptor biology, virology, protein chemistry, or biochemistry would be important. Applicants should have a Ph.D. and at least two years of postdoctoral experience. Please submit a curriculum vitae and the names of three references to: Dr. Anne Moscona, Chief of Pediatric Infectious Diseases, Mount Sinai School of Medicine Box 1198, 1 Gustave L. Levy Place, New York, NY 10029-6574. E-mail: a_moscona@smtplink.mssm.edu. We are an Equal Opportunity Employer fostering diversity in the workplace.

WRITER/EDITOR

The American Institute of Biological Sciences seeks a Science Writer for its monthly journal, BioScience. Individual will write feature articles on a wide range of biological topics and edit articles by freelance writers. A strong background in both biology and journalism is required. Salary commensurate with experience; excellent benefits. Send résumé and three writing samples to: Editor Search, American Institute of Biological Sciences, 1444 Eye Street N.W., Suite 200, Washington, DC 20005.

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UT Southwestern is pleased to announce a new Endowed Program for Scholars in Biomedical Research. The Program, which is fully funded from private endowment, will provide \$600,000 over four years to support the research activities of each new **Assistant Professor** (tenure track) appointed to the Program; five will be appointed annually. In addition, regular funding for salary, as well as research space, will be provided by the medical school department or research center offering the appointment. Positions in both **basic science** and **clinical departments** are available. The goal of the program is to assure a successful beginning of the research careers of an ever-growing cadre of outstanding young investigators at UT Southwestern.

For detailed information about currently available faculty positions, please access our web page: <http://www.swmed.edu>

Or contact:
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Endowed Biomedical Scholars Program
UT Southwestern Medical Center
5323 Harry Hines Boulevard
Dallas, Texas 75235-9004
Telephone: (214) 648-2174
FAX: (214) 648-2102

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POSITIONS OPEN

ASSISTANT PROFESSOR—ETHNOBOTANY.

A joint tenure-track appointment in anthropology and botany at Connecticut College, a highly selective, independent liberal arts college. This position will complement strong programs in anthropology, botany, and environmental studies; specific areas of training and research are open. Applicants should have ethnographic fieldwork experience and a focus on plant systematics and use of indigenous species. Teaching includes courses in an ethnographic area, ethnobotany, and offerings of the candidate's own design. Faculty teach five courses for the academic year; laboratory sections count as a course. The College is committed to research as an important component of undergraduate education; the successful candidate will be expected to develop a research program involving undergraduates. A Ph.D. required; postdoctoral work and teaching experience desirable. Applications should include a curriculum vitae, list of potential referees, and statements of the candidate's philosophy on teaching and research at the undergraduate level. Application review will begin December 1, 1997. Address material to: **R. Scott Warren, Chair, Ethnobotany Search Committee, c/o Box 5213, Connecticut College, 270 Mohegan Avenue, New London, CT 06320-4196.** E-mail inquiries to e-mail: rsrwar@conncoll.edu. Connecticut College website: <http://camel.conncoll.edu/>.

Connecticut College is actively seeking to increase faculty diversity, Affirmative Action/Equal Opportunity Employer.

SENIOR RESEARCH SCIENTIST

BIOCHEMICAL ENGINEERING U.S. Army Edgewood Research, Development and Engineering Center Aberdeen Proving Ground, Maryland

Responsibilities: Conduct research on scale-up biomanufacture of recombinant and natural cellular products; evaluate emergence of new biomanufacturing technologies; conduct and oversee original research; serve as national/international authority in various areas of bioprocessing.

Required: A Ph.D. in biochemical engineering, chemistry, physics, or equivalent doctoral degree related to the work of the position or an equivalent combination of education and research experience.

Salary range: \$91,122 to \$123,100 commensurate with experience.

Applications: Telephone: 703-617-9415. Other information: U.S. Army Materiel Command, ATTN: AMCEP-CS (D. Harrigan), 5001 Eisenhower Avenue, Alexandria, VA 22333-0001. Telephone: 703-617-3660. Applications must be postmarked by November 17, 1997.

Equal Opportunity Employer. U.S. citizenship required.

DEVELOPMENTAL MECHANISMS

The Department of Biology at the University of North Carolina at Chapel Hill invites applications for a tenure-track position at the level of **ASSISTANT PROFESSOR** in the area of cell and developmental biology. We particularly encourage applications from individuals using biochemical, molecular, or genetic approaches to analyze developmental mechanisms using model organisms such as *C. elegans*, *Drosophila*, *Arabidopsis*, zebrafish, or mice. In addition to establishing a vigorous research program, the successful candidate will contribute to the teaching mission of the department. The appointment will be effective July 1, 1998. Please submit a curriculum vitae, a two-page statement of research interests, a summary of teaching interests, and four letters of recommendation to: **Chairman, Faculty Search, Department of Biology, CB# 3280, Coker Hall, University of North Carolina, Chapel Hill, NC 27599-3280.** Priority will be given to applications received by November 21, 1997. The University of North Carolina is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from women and minorities.

RESEARCH INSTRUCTOR

A Research Instructor position is available at the University of Illinois at Chicago, Section of Hematology/Oncology for a Ph.D. with extensive experience in the area of cloning human genes for tumor suppression. Duties include collaborative research. Interested candidates should submit curriculum vitae and list of references to: **Sharon Gaik, Department of Medicine, The University of Illinois at Chicago, 840 South Wood (M/C 787), Chicago, IL 60612.**

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

POSITIONS OPEN

HARVARD MEDICAL SCHOOL MASSACHUSETTS GENERAL HOSPITAL

Immunobiology Laboratory at the Massachusetts General Hospital

Monoclonal antibody production and biochemical characterization. (M.S., B.S., or Ph.D. required.) Candidate most importantly must have track record in monoclonal antibody production and characterization on biochemical or immunologic level. Position has benefit of learning flow cytometry techniques on a state-of-the-art cytometer. Possibility for advancement as lab manager.

Applicants should send a curriculum vitae, brief statement of research interests, and have at least two letters of recommendation sent to:

**Director/Immunobiology Laboratory
Massachusetts General Hospital-East
Building 149, 13th Street, CNY-3601
Charlestown, MA 02129**

MICROBIOLOGIST/IMMUNOLOGIST. The Biology Department of Albion College anticipates a full-time, tenure-track opening in microbiology/immunology to begin in August, 1998. A Ph.D. is required, and teaching experience is preferred. The successful candidate will be expected to teach upper-level undergraduate courses in general microbiology with lab and immunology with lab. The candidate will also share responsibilities in introductory biology courses. Opportunities exist to teach environmentally related topics. A research program incorporating undergraduate students is expected. Facilities include standard molecular biology equipment (including thermal cycler, DNA sequencer apparatus, and ultra-low freezer), TEM and SEM, and a 135-acre nature center. Further information is available at website: <http://www.albion.edu/fac/biol>. Send letter of application, including teaching philosophy and research interests, current curriculum vitae, graduate and undergraduate transcripts, and three letters of reference to: **Dr. Ruth E. Schmitter, Chair, Biology Department, Albion College, Albion, MI 49224.** Deadline for applications is November 15, 1997. *Albion College is an Equal Opportunity Employer and encourages applications from women and minority candidates.*

AQUATIC ECOLOGY. The Department of Biology, Kenyon College, invites applications for a **TENURE-TRACK POSITION** in aquatic ecology. The successful candidate will teach in the introductory sequence for undergraduates; teach advanced aquatic biology and other topics in their field of expertise; and advise undergraduate, independent research projects. Kenyon provides start-up support and offers excellent field opportunities through access to a center for environmental study. Applicants should hold a Ph.D. degree and be able to demonstrate both teaching excellence and the potential to maintain research involvement by undergraduates. Statements of teaching and research interest, curriculum vitae, undergraduate and graduate transcripts, and three letters of reference should be sent directly to: **Search Committee, Biology Department, Kenyon College, Gambier, OH 43022.** Review of applications will begin 30 October.

An Equal Opportunity Employer, Kenyon affirms the values and goals of diversity; therefore, the applications of minorities and women are especially encouraged.

RESEARCH POSITIONS. A Biotechnology company is accepting applications for research in two areas of expertise. The successful applicant will have a Ph.D. or equivalent training in either evaluating antisense compounds in animal tumor models, or oligonucleotide chemistry. To apply please send curricula vitae including reference names and telephone numbers to: **Dr. Wright and Dr. Young, GeneSense Technologies Inc., Room ON 222 100 Olivia Street, Winnipeg, Manitoba R3E 0V9 Canada. FAX: 204-787-2938; Telephone: 204-787-2190.**

BIOCHEMISTRY GROUP LEADER

Biochemist with antibody characterization and purification experience, including affinity col DEAE, FPLC, SDS-PAGE, and blots. Ph.D. with three-plus years of industrial diagnostic experience mandatory. Benefits and Seattle site. Send curriculum vitae and salary history to: **Bio Control Systems, Inc., 19805 North Creek Parkway, Bothell, WA 98011. FAX: 425-486-2591.**

POSITIONS OPEN

PROTEIN CRYSTALLOGRAPHY FACILITY MANAGER

The new structural biology program at the Mount Sinai School of Medicine seeks a Biophysicist to work with a team of investigators and their scientific staff. The successful candidate will oversee both X-ray facility and other biophysical instrumentation including an analytical ultracentrifuge, microcalorimeter, etc. The X-ray equipment includes two Rigaku rotating anode X-ray generators, several imaging plate area detectors, and crystal freezing devices. Experience with specific instrumentation, as well as computer hardware and software is preferred. Please send résumé and at least two letters of reference to: **Dr. Aneel Aggarwal, Department of Physiology and Biophysics, Box 1677, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** We are an Equal Opportunity Employer fostering diversity in the workplace.

RESEARCH FELLOWSHIP in nephrology. Two research training positions, funded by a NIH National Research Service Award, are available July 1, 1998, in the Division of Nephrology at Mount Sinai School of Medicine New York, New York for individuals seeking an academic career in nephrology. Applicants must have M.D. or M.D.-Ph.D. degrees, completed residency training, and be U.S. citizens or holders of permanent resident cards. Training will be under the direction of faculty from Nephrology and multiple other Departments in the School of Medicine. Training will be available in five major areas: molecular genetics and development; immunology, virology, and gene therapy; cell cycle and signal transduction; adhesion molecules and matrix; and molecular basis of transport. Further information about the Division of Nephrology, the training grant faculty, and research training opportunities may be found at our website: <http://www/mssm.edu/medicine/nephrology/home-page.html>. For applications Telephone: 212-241-8004.

GENETICIST. The Department of Biology at the University of North Carolina-Greensboro is seeking a Geneticist at the **ASSISTANT PROFESSOR** level. Applicants should have a Ph.D. and postdoctoral experience with a strong research record. The Department offers competitive start-up funding and seeks excellence in teaching, research, and service. The successful candidate will be expected to teach genetics and specialty courses, and develop a research program that involves undergraduate and M.S. students. For more information, visit our website: <http://www.uncg.edu/bio>. Deadline for applications is November 19, 1997. Send cover letter, curriculum vitae, statements of research and teaching interests, and arrange for three letters of reference to be sent to: **Dr. Vincent Henrich, Chair, Genetics Search Committee, Department of Biology, 312 Eberhart, University of North Carolina-Greensboro, Greensboro, NC 27412-5001.** Equal Employment Opportunity/Affirmative Action: Women/Minorities/Veterans/Disabled.

FACULTY POSITION

Seeking **PRINCIPAL SCIENTIST** for Program in Gastrointestinal Cancer at the University of California, San Francisco. Prerequisites M.D. or Ph.D., established laboratory-based research program in cancer biology related to the gastrointestinal tract. Incumbent will be appointed in Cancer Research Institute, Department of Medicine, and member of the Biomedical Sciences Graduate Program. Title and salary commensurate with experience and accomplishments. Please send a curriculum vitae to: **D. M. Bissell, M.D., c/o Erica Gorman, University of California, San Francisco, GI Division S-357, 513 Parnassus, San Francisco, CA 94143-0538.** University of California, San Francisco undertakes Affirmative Action to assure Equal Employment Opportunity for underutilized minorities, women, persons with disability, Vietnam-era veterans, and special disabled veterans.

ASSISTANT/ASSOCIATE PROFESSOR

The Department of Neurological Surgery at the Medical College of Ohio seeks a Neuroscientist, Neuropharmacologist, or Neurophysiologist with an interest in the somatosensory system to pursue the study of chronic pain. Candidates should have a Ph.D. and will be expected to establish an externally funded research program. Applications should include a curriculum vitae and a summary of research interests. Send to: **Jeffrey A. Brown, M.D., Professor and Chairman, Department of Neurological Surgery, Medical College of Ohio, Dowling Hall, 3065 Arlington Avenue, 43614-5807.**

METABOLISM AND STRUCTURAL BIOLOGY RESEARCH PROGRAM SCIENTIFIC PROGRAM MANAGER NIH RESEARCH ADMINISTRATION

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) seeks a scientist with expertise in cell and/or structural biology (Ph.D. or equivalent) to serve as **Director, Metabolism and Structural Biology Research Program**. The successful candidate will have independent research experience, excellent interpersonal and written communications skills, and the ability to identify research priorities and opportunities. The position involves scientific administration of grants and contracts, program planning and development, close interaction with leading researchers, and the opportunity to organize and/or attend scientific meetings. The position (GS-13/14) salary range for this position is \$54,529 to \$83,922 per annum depending on qualifications. The position will be available in early 1998.

A position description which delineates the areas of science encompassed by the program and qualifications for the position are available from Ms. Virginia Kreamer in the Office of Human Resource Management, NIDDK. **The deadline for applications is November 3, 1997.** Submit a CV, bibliography, application background survey (optional) and supplemental qualifications statement to:

Mr. Ronald Sleyo, Office of Human Resource Management, NIDDK, NIH, Building 31, Room 9A34, 31 Center Drive MSC 2560, Bethesda, MD 20892-2560; Email: sleyor@extra.niddk.nih.gov

Applicants may also apply to this position via the Internet. The full text vacancy announcement and on-line application for this position is available at <http://ohrm.cc.nih.gov/nihhrm/ANNOUNCEMENT/ON-LINE.html>

U.S. Citizenship is Required. NIH is an Equal Opportunity Employer. Minority and Women Applicants are Encouraged to Apply.

Career Opportunities at GCG

A wholly owned subsidiary of Oxford Molecular Group, Inc.

User Education Specialist / Technical Support

Genetics Computer Group is seeking an individual with a minimum of a master's degree in molecular biology/biochemistry, knowledge of sequence analysis software, and experience with UNIX operating systems and terminal emulation software. This position requires 50% travel presenting training seminars on the use of bioinformatics products at customer sites and assisting the Technical Support staff. *Application deadline is October 31, 1997.*

Software Engineers

GCG is also seeking motivated Software Engineers interested in working as part of an expert team recognized around the world for innovative solutions to bioinformatics problems. Experience with at least three of the following is essential: C/C++ programming, Fortran programming, UNIX shell programming, X Windows/Motif GUI development, CGI WWW programming, RDBMS programming and SQL (ORACLE preferred), and database design.

Please send CV or resume with references to



Genetics Computer Group, Inc.
575 Science Drive
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SCIENCE AND MEDICINE AT FOX CHASE

Research conducted by scientists and physicians at Fox Chase has led to ground-breaking discoveries that have an impact on science and medicine today.

Current research interests of our faculty are wide-ranging and include gene expression; molecular aspects of oncogenesis; viral molecular biology and pathogenesis; molecular structure and function analysis; pharmacology and therapeutics; regulation and development of the immune system; cell cycle control; and human genetics, including the Human Genome Project.

An energizing environment with research as its major focus, the Center has more than 70 independent laboratories where investigators enjoy a unique advantage—to pursue their passion for discovery full-time, with minimal distractions by administrative or teaching responsibilities.

Tenure Track Faculty Positions:

At this time we are welcoming applications from outstanding independent investigators to fill Assistant and Associate Professor-level positions in HUMAN GENETICS; GENOMICS; CELLULAR, MOLECULAR AND DEVELOPMENTAL BIOLOGY; MOLECULAR ONCOLOGY; VIRAL PATHOGENESIS; AND IMMUNOBIOLOGY. We are interested in people using model experimental systems capable of exploiting the exploding genetic data bases. Fox Chase offers excellent shared core facilities, such as transgenic mouse, hybridoma, tissue culture, cell sorting and electron microscopy facilities, and a wide range of biotechnology and computational support services.

As a new faculty member, you will receive a generous start-up package, including funds for equipment, technical assistance and operating expenses. You will have the opportunity to recruit postdoctoral trainees from our intramural program and to obtain adjunct faculty positions at nearby medical and scientific centers.

Interested candidates should send a C.V., summary of research interests and at least three references to: Search Committee, c/o Dr. A.M. Skalka, Director, Institute for Cancer Research, Fox Chase Cancer Center, 7701 Burholme Ave., Philadelphia, PA 19111.

Fox Chase Cancer Center is an
Affirmative Action/Equal Opportunity Employer.

FOX CHASE CANCER CENTER

POSITIONS OPEN

GENE TARGETING LABORATORY CORE POSTGRADUATE RESEARCHER

Position available in the University of California-Davis Center for Comparative Medicine's Gene Targeting Laboratory core facility for the generation of genetically altered mice through random transgene insertion and targeted insertion of genetic material. Specific duties will include transgenic pronuclear injection of foreign DNA, RNA, and/or proteins; embryonic stem (ES) cell injection of blastocysts; production of aggregation chimeras; embryo rederivation and freezing. Incumbent will be expected to perform all ancillary activities necessary to complete these tasks including superovulation of donor mice; harvesting of oocytes and blastocysts; surgical transfer of microinjected oocytes and blastocysts into recipient mice; preparation of transfer and holding needles; management, record keeping, and husbandry of generated mouse lines. Incumbent will work within a team and interact directly with Principal Investigators and their support staff, visiting scientists, and other technical staff. Incumbent must have exceptional technical ability, outstanding fine-motor skills, the ability to pay strict attention to detail, and consistently produce timely results. Experience in micromanipulation of mouse or other vertebrate embryos is preferred. Salary dependent upon experience and qualifications. Review of applications will commence immediately and continue until November 30, 1997, or until position is filled. Submit application with letter of interest and curriculum vitae to: **Center for Comparative Medicine, University of California, Davis, CA 95616.** The University of California is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT DIRECTOR CYTOGENETIC DEPARTMENT

Children's Mercy Hospital is a nationally recognized pediatric specialty hospital serving the Midwest. We are currently seeking an Assistant Director for the Cytogenetic Department. Qualified candidates will be Ph.D. or M.D. and eligible or recently certified in clinical cytogenetics by the American Board of Medical Genetics. Experience in the cytogenetics of all specimen types and fluorescence *in situ* hybridization. Research experience and publications in human cytogenetics is also required. Please send inquiries to: **Linda M. Pasztor, Ph.D., Biomolecular Laboratories, Children's Mercy Hospital, 2401 Gillham Road, Kansas City, MO 64108.** E-mail: lpasztor@cmh.edu. Equal Opportunity Employer.

NEUROPHYSIOLOGY AND SOFT TISSUE BIOMECHANICS

POSTDOCTORAL POSITION available immediately to study the neural population response of cutaneous nociceptors to controlled mechanical stretch and compression. Two- to three-year project involves developing a new apparatus for mechanical testing of a skin-nerve *in vitro* prep, modeling continuum stress-strain state in skin, and recording from isolated peripheral neurons. Small animal surgery, engineering background, and programming experience in LabView or C will be assets. Send letter of interests, curriculum vitae, and three references to: **P. S. Khalsa, Ph.D., Department of Biomedical Engineering, SUNY at Stony Brook, HSC T18-030, Stony Brook, NY 11794-8181.** E-mail: partap.khalsa@sunysb.edu.

RESEARCH ASSOCIATE position is available. This position is responsible for organizing and performing studies relating to electrochemical treatment of cancer. Applicants must possess a Ph.D. and/or M.D. degree and a strong background in electrochemical treatment, tumor biology, and animal studies. Applicant who understands Chinese literature is preferred. Salary is negotiable based on experience. Send curriculum vitae to: **Dr. C. K. Chou, Department of Radiation Research, City of Hope National Medical Center, 1500 East Duarte Road, Duarte, CA 91010 USA.** The City of Hope is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION(S) to study structure-function of chemokines and their receptors, enzymology and molecular biology of hydrocarbon synthesis. Send curriculum vitae and three letters of reference to: **P. E. Kolattukudy, Ohio State University, Neurobiotechnology Center, Rightmire Hall, 1060 Carmack Road, Columbus, OH 43210.** The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

WASHINGTON UNIVERSITY DEPARTMENT OF ANESTHESIOLOGY

The Anesthesiology Research Unit has immediate openings for dedicated and enthusiastic **POSTDOCTORAL ASSOCIATES** to join a unique and multidisciplinary team investigating problems relevant to signal transduction, cell death, anesthesia, and anesthesiology. The following laboratories participate:

Walter A. Boyle: Anesthetic actions on contraction, $[Ca^{2+}]_i$, and myosin phosphorylation in vascular smooth muscle. Specific interest/expertise in permeabilized muscle preparations desirable.

C. Michael Crowder: Molecular genetic analysis of anesthetic sensitivity in *C. elegans*. It would involve genetically mapping, positionally cloning, and molecularly characterizing genes that alter sensitivity to general anesthetics. Expertise in molecular biology techniques and quantitative and classical genetics desired.

Alex S. Evers: Photoaffinity labeling of anesthetic steroid binding sites. Novel photoaffinity labeling reagents have been synthesized in the lab and are being used to identify the protein binding sites of steroid anesthetics. Experience in protein chemistry is required; experience in photolabeling and protein microsequencing is desirable.

Narasimhan Gautam: Molecular biology of G protein mediated signaling.

Richard S. Hotchkiss: Mechanisms of cell death during infection with particular emphasis on apoptosis and potential modifiers of the cell death pathway. Candidate should have considerable background in apoptosis research. NIH-funded position available for one to three years.

Christopher J. Lingle: Function and physiological roles of Ca^{2+} -dependent K^+ channels; anesthetics and Ca^{2+} channels.

Joseph H. Steinbach: Physiology and pharmacology of expressed recombinant nicotinic and GABA-A receptors; mechanism of action of anesthetics on transmitter-gated channels.

Min Zhuo: Neural plasticity and pain modulation. Experimental approaches are: regulation of Ca^{2+} channels/synaptic transmission/plasticity in sensory cells or spinal slices, *in vivo* electrophysiology and behavioral tests in rats and transgenic mice. Expertise in electrophysiology and/or Ca^{2+} imaging desired.

Applications will be accepted until the positions are filled. Applications, including curriculum vitae, a statement of experience and research interest, and the names of three references, should be sent to individual PIs at: **The Anesthesiology Research Unit, Washington University School of Medicine, 660 South Euclid Avenue, Box 8054, St. Louis, MO 63110.**

POSTDOCTORAL POSITIONS METAL ION TRANSPORT AND GENE REGULATION

Two positions are available to study the molecular biology of metal ion transport in *Saccharomyces cerevisiae* and other eukaryotes. Projects include structure/function analysis of transport proteins, analysis of the transcriptional and post-translational regulation of transporter activity, and characterization of metal transporters from plants and mammals ([website: www.missouri.edu/~nutsci/eide.htm](http://www.missouri.edu/~nutsci/eide.htm)). Submit a curriculum vitae and the names of three references to: **Dr. David Eide, Nutritional Sciences Program, University of Missouri-Columbia, 217 Gwynn Hall, Columbia, MO 65211.** Telephone: 573-882-9686; FAX: 573-882-0185; e-mail: deide@showme.missouri.edu.

RESEARCH ASSOCIATE. Ph.D. in organic synthesis with strong background in polyazaheterocyclic chemistry to design, synthesize, and develop novel propellants. In addition to skills in the isolation, purification, and characterization of materials, candidate should have a minimum of two years of experience dealing with energetic materials. Send curriculum vitae to: **Dr. Theodore Axenrod, Department of Chemistry, The City College of the City University of New York, New York, NY 10031.** Equal Opportunity Employer.

RESEARCH ASSISTANT in tissue culture/biochemistry. B.S. degree required, with tissue culture experience. Studies will be in the areas of metal carcinogenesis and the biochemistry and molecular biology of cell matrix components. Send curriculum vitae and three letters of recommendation to: **Thomas Meehan, Department of Biopharmaceutical Sciences and Division of Toxicology, Box 0446, University of California, San Francisco, CA 94143.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATES IMMUNOBIOLOGY

Postdoctoral Research Associate positions in cellular and molecular immunobiology available at East Carolina University School of Medicine ([website: http://med.ecu.edu/micro/mddept.htm](http://med.ecu.edu/micro/mddept.htm)). Immunobiology faculty offer research opportunities in the following areas: **Dr. Richard A. Franklin**, molecular and biochemical analysis of lymphocyte signaling pathways; **Dr. Kelly P. Kearse**, quality control of immune receptor assembly and regulation of T-cell development and activation; **Dr. Mark D. Mannie**, regulation of T-helper cell function, antigen-specific tolerance, and autoimmunity; **Dr. James A. McCubrey**, roles of oncogenes in apoptosis and abrogation of cytokine dependency in malignant transformation of hematopoietic and breast cells. Youthful department of 65 faculty, graduate students, and staff offers active research training and seminar programs in modern laboratories with excellent research support facilities. Salaries and benefits are nationally competitive.

Preferred candidates will have recent Ph.D. degree and records of research productivity in molecular cell biology, biochemistry, cancer biology, and/or basic immunology. Send application letter citing area(s) of research interest, curriculum vitae, and names of three references with complete addresses and telephone and FAX numbers to: **Postdoctoral Committee, Department of Microbiology and Immunology, School of Medicine, East Carolina University, Greenville, NC 27858-4354.** Telephone: 919-816-2700; FAX: 919-816-3104; e-mail: hmoore@brody.med.ecu.edu. East Carolina University is an Equal Opportunity/Affirmative Action Institution that accommodates individuals with disabilities. Applicants must comply with the Immigration Reform and Control Act.

WAYNE STATE UNIVERSITY/KARMANOS CANCER INSTITUTE POSTDOCTORAL FELLOW

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately to study mechanisms of cancer metastasis. Project involves molecular and cellular investigations into the interaction of prostate carcinoma cells and bone marrow elements. The work will involve state-of-the-art molecular and cellular biological techniques. Candidates should have at least two years of demonstrated semi-independent postdoctoral research experience. Preference will be given to candidates with strong written communication skills. Minimum salary \$27,000, dependent upon experience. **Dr. Michael L. Cher** and **Dr. David P. Wood** of the Urologic Oncology Program are the project directors. Please send brief statement of research interests, capabilities and goals, curriculum vitae, addresses, FAX and telephone numbers, and three references to: **Dr. Michael L. Cher, M.D., Departments of Urology and Pathology, Wayne State University, 540 East Canfield, Room 9105, Detroit, MI 48201.** E-mail: mcher@med.wayne.edu. Wayne State University is an Equal Opportunity/Affirmative Action Employer. All buildings, structures, and vehicles at Wayne State University are smoke-free. Wayne State University—people working together to provide quality service.

POSTDOCTORAL POSITIONS AVAILABLE DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS University of Colorado Health Sciences Center

Postdoctoral positions are available immediately to join ongoing projects with the following faculty members:

Yiannis Koutalos: Sensory signal transduction—electrophysiology experience required. **S. Rock Levinson:** Expression and regulation of sodium channel isoforms in the peripheral nervous system; mechanism of sodium channel gating—experience with immunological techniques and/or electrophysiology required. **Sukumar Vijayaraghavan:** Function and regulation of central nervous system nicotinic receptors—experience with electrophysiology, imaging, or biochemistry required. **Adam Zweifach:** Physiology of target cell killing by cytotoxic T lymphocytes—electrophysiology experience required.

Further information about the Faculty and the Department can be found at the following [website: http://www.uchsc.edu/sm/physiol/index.htm](http://www.uchsc.edu/sm/physiol/index.htm). Send curriculum vitae and references to the appropriate faculty at: **Department of Physiology and Biophysics, Box C240, University of Colorado Health Sciences Center, 4200 East 9th Avenue, Denver, CO 80262.**

Equal Employment Opportunity/Affirmative Action.

GLOBAL CAREER OPPORTUNITIES

研究の世界三極体制の一翼を担う京都中央研究所 Scientist, Bioinformatics 募集



世界のパイエルが研究の世界三極体制の一翼として、ドイツ・アメリカに次いで京都に中央研究所を設立した。この研究所では、様々なバックグラウンドを有する研究者で構成された研究チームが内外の科学者と連携しながら、最先端の技術を使って糖尿病の研究・開発を目指している。

職務内容

新規なバイオインフォマティクスの応用とデータベースを開発・導入し、これを他の研究者に提供。分子生物学、細胞生物学、そして免疫学分野の研究と共同によるDNAや蛋白質の専門的分析は、新薬開発におけるターゲットの発見にとって非常に重要である。

Senior Scientist Bioinformatics

- 当研究所の Bioinformatics Team のリーダー
- Informatics 又は分子生物学分野の Ph.D.
- 同領域における成功体験、実績
- 関連するデータベースのソフトウェア及びその動向の深い知識
- ソフトウェア開発の経験があれば尚可

Junior Scientist Bioinformatics

- コンピュータ科学又は分子生物学分野の MS 又は Ph.D.
- DNA、蛋白質の分析経験
- 関連するデータベースに関する知識

- 情熱的で積極的、自主的な方を歓迎します。
- パイエルの世界的研究体制の中で活躍して頂きますので、日本語・英語によるコミュニケーションスキルは必須です。

応募資格: Bilingual (Japanese & English)、入社時期は相談に応じます。

応募方法: 履歴書・研究概要 (何れも日・英双方必要、書式自由)

上記書類を添付の上、下記「問合せ先」宛に送付ください。

選考方法: 1次 書類選考、2次 面接、筆記試験など

勤務地: パイエル薬品中央研究所 (京都府木津町/関西学研都市)

★ 海外留学生セミナー (鯛DISCO主催)

会場: ボストン・ワールドトレードセンタービル (10月24日-26日)

応募資格: 分子生物学、細胞生物学、医学、薬学、化学分野で1998年以内に修士、博士課程修了予定の方。Bilingual (Japanese & English)

応募方法: 当日、会場でパイエル薬品のブースをお訪ね下さい。

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TEL 06(398)1145 担当: 安田 富田

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TYPE 2 DIABETES MELLITUS RESEARCH PROGRAM SCIENTIFIC PROGRAM MANAGER NIH RESEARCH ADMINISTRATION

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) is seeking applicants for the position: **Director for the Type 2 Diabetes Mellitus Research Program**. This position is located in Bethesda, Maryland, and is a permanent full-time position for a Scientific Program Manager (GS-13 or -14) with a salary range of \$54,529 to \$88,396 per annum commensurate with qualifications. Physicians may be eligible for Physician Comparability Allowance ranging from \$5,000 to \$20,000 per year.

The Director for the Type 2 Diabetes Mellitus Research Program is responsible for planning, developing, managing and evaluating a multimillion dollar program of grants and contracts which supports high quality basic and clinical studies throughout the world. This individual will be responsible for identifying research priorities, organizing scientific meetings and closely interacting with leading researchers in the field. This grant portfolio focuses on research related to type 2 diabetes mellitus including insulin resistance, glucose metabolism, and the mechanism of insulin action. Applicant scientists (Ph.D., M.D., or equivalent) should have a track record of accomplishments in biomedical research related to diabetes and excellent interpersonal and written communication skills.

A position description and qualifications for the position are available from Ms. Virginia Kreamer in the Office of Human Resource Management, NIDDK. The deadline for applications is November 3, 1997. Submit a CV, bibliography, application background survey (optional) and supplemental qualifications statement to: **Mr. Ronald Sleyor, Office of Human Resource Management, NIDDK, NIH, Building 31, Room 9A34, 31 Center Drive MSC 2560, Bethesda, MD 20892-2560; Email: sleyor@extra.niddk.nih.gov**. Applicants may also apply to this position via the Internet. The full text vacancy announcement and on-line application for this position is available at:

<http://ohrm.cc.nih.gov/nihhrm/ANNOUNCEMENT/ON-LINE.html>

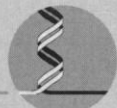
U.S. Citizenship is Required. NIH is an Equal Opportunity Employer. Minority and Women Applicants are Encouraged to Apply.

Postdoctoral Position

To investigate the mechanism and consequences of Ty element retrotransposition in *S. cerevisiae*. These transposable elements are structurally and functionally similar to retroviruses and are widely dispersed in nature.

We seek an individual with experience in genetics, microbiology, molecular biology or biochemistry. Previous experience in yeast genetics is not required. Excellent benefits and work environment; competitive salary. Please send C.V., a brief description of research experience and contact information for three references to:

Dr. David Garfinkel
c/o Human Resources Dept.
ABL-Basic Research Program
NCI-FCRDC
P.O. Box B, Building 428
Frederick, MD 21702-1201



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MEMBRANE BIOLOGY

The DEPARTMENT OF BIOLOGY, SYRACUSE UNIVERSITY invites applications for a **FACULTY POSITION in CELL BIOLOGY**. We

expect to appoint an individual trained in cell biology and who conducts research on an aspect of cell membrane or cell surface function. Fields of interest and expertise to be considered include: mechanisms of signal transduction, function of receptors, protein targeting and establishment of cell polarity. The position can be at the Assistant Professor or Associate Professor level. Teaching responsibilities will be in the area of cell biology. Candidates should have a Ph.D and significant postdoctoral experience. Please send a curriculum vitae, a short description of research interests and a list of three references' names and addresses. References should be asked to send letters directly to the search committee. All materials should be submitted to: Cell Biology Search, Lyman Hall, Room 122, Department of Biology, Syracuse University, Syracuse, NY 13244. Applications completed by January 15, 1998 will be given full consideration. AA/EOE

POSTDOCTORAL POSITIONS



Two Postdoctoral Positions available immediately to:

- 1) Identify novel breast cancer predisposition genes using CGH and LOH studies of breast tumors. Some experience in molecular cytogenetics is necessary.
- 2) Analyze the role of BRCA2 in cell cycle control, DNA repair, and apoptosis by characterization of BRCA2 interacting proteins. Experience in molecular biology, tissue culture, and cell cycle studies is required. A highly competitive salary with full benefits to motivated candidates.

Send a full C.V. with names and addresses of three references to:

Fergus J. Couch, Ph.D.
Division of Experimental Pathology
Guggenheim 5
Mayo Clinic and Foundation
200 First Street SW
Rochester, MN 55905

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POSITIONS OPEN

UNIVERSITY OF PENNSYLVANIA POSTDOCTORAL OPPORTUNITIES IN SEROTONIN RESEARCH

Postdoctoral positions are available for Ph.D.-level scientists in a program of integrative research concerning the biological actions of serotonin. Opportunities exist to work in participating laboratories: (1) Development and characterization of new serotonin ligands, imaging tools: **Dr. Hank F. Kung** (Penn); (2) Serotonin receptor-G protein interactions, signal transduction: **Dr. David R. Manning** (Penn); (3) Serotonin receptors and behavior, regulation of serotonin release, mechanisms of antidepressant drug effects: **Dr. Irwin Lucki** (Penn); (4) Development of biological characterization of serotonin receptor transgenic mice: **Dr. Rene Hen** (Columbia University) and **Dr. Irwin Lucki** (Penn). Send curriculum vitae, names of three references, and indicate research areas of interest to: **Dr. Irwin Lucki**, Department of Psychiatry, University of Pennsylvania, 3600 Market Street, Room 748, Philadelphia, PA 19104. FAX: 215-573-2149; e-mail: lucki@pharm.med.upenn.edu.

A **POSTDOCTORAL POSITION** is available for studying the regulation and function of unconventional myosins and myosin kinases. Current projects include studies of the molecular basis of activation of *Acanthamoeba* myosin I and myosin I heavy chain kinase by phosphorylation, regulation of the kinase by small GTP-binding proteins and phospholipids, and the effects of site-directed mutagenesis and chimeric constructs on the activities of myosin I and the kinase. Candidates should have research experience in molecular biology including protein expression for the purpose of studying structure-function relationships *in vitro* and *in vivo*. Experience with myosins, kinases, and/or small GTP-binding proteins and baculovirus-expression systems is highly desirable. Salary will be appropriate to experience beginning at \$25,000. Send curriculum vitae and names of at least three references to: **Dr. Edward D. Korn**, National Institutes of Health, 9000 Rockville Pike, 3 Center Drive MSC 0301, Building 3, Room B1-22, Bethesda, MD 20892-0301. NIH is an Equal Opportunity Employer.

PALEOECOLOGIST

POSTDOCTORAL RESEARCH ASSOCIATE to work on an interdisciplinary project investigating forest dynamics, disturbance, and human history over the last 1,000 years in Eastern Massachusetts. The project will involve field work, pollen and other stratigraphic analyses, and synthesis of data using multivariate and other approaches. The research requires a strong interest in interdisciplinary studies and the application of paleoecology to ecological questions. The position is grant-funded and available for an initial one-year period with the possibility of renewal. Information on the Harvard Forest can be found at website: <http://lternet.edu/~rlent/hfrhome.htm>. Please send curriculum vitae, cover letter, relevant publications, and three letters of recommendation to: **David R. Foster**, Harvard Forest, P.O. Box 68, Petersham, MA 01366 by November 15, 1997.

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

POSTDOCTORAL POSITION is available at the Hormel Institute, University of Minnesota, Austin, Minnesota, to study the signal transduction in tumor promotion (MCB 16:6427, 1996; JBC 271:9942, 1996; JBC 271:3126, 1996; JBC 272:4187, 1997; JBC 272:9962, 1997; PNAS 94:5826, 1997). We are seeking a self-motivated Ph.D. with experience in biochemistry, molecular and cellular biology. Experience in signal transduction systems is a plus. Please send your curriculum vitae and the names and telephone numbers of three references by November 15, 1997, 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@wolf.co.net. The University of Minnesota is an Equal Opportunity Educator and Employer.

POSTDOCTORAL POSITION EVOLUTIONARY PRIMATOLOGY

The American Museum of Natural History seeks a resident postdoctorate to complement the research of and work with one or more members of its staff for one year from summer 1998, under the auspices of New York Consortium in Evolutionary Primatology (NYCEP). See detailed notice in October and November American Anthropological Association Anthropology Newsletter, or e-mail: nycep@email.gc.cuny.edu.

POSITIONS OPEN

POSTDOCTORAL RESEARCH OPPORTUNITIES IN T-CELL IMMUNOLOGY

The Department of Cancer Immunology and AIDS at the Dana-Farber Cancer Institute seeks to fill several positions at the Postdoctoral level for studies on T-cell development and function. Background or experience in gen targeting/transgenic techniques preferred. A joint appointment will be held in an appropriate department of the Harvard Medical School. Please forward curriculum vitae to: **Harvey Cantor**, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. Dana-Farber Cancer Institute is an Equal Opportunity Employer.

POSTDOCTORAL POSITION/ NEUROBIOLOGY University of Pittsburgh School of Medicine

Ph.D. position to study the structure and function of NMDA receptors channels. Interested in an experienced patch-clamp Electrophysiologist with solid background in single-channel analysis. Research project utilizes both native and recombinantly expressed receptors. Opportunity to learn molecular biological techniques and participate in a highly interactive group focusing on glutamate receptor function and cell injury. Send curriculum vitae and names of three references to: **Elias Aizenman**, Department of Neurobiology, E1456-BST, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261. E-mail: redox+@pitt.edu; website: <http://www.neurobio.pitt.edu>.

Affirmative Action/Equal Opportunity Employer.

TUMOR IMMUNOLOGY

The Laboratory of Transplantation Immunology, Department of Pathology/Microbiology, University of Nebraska Medical Center, Omaha, Nebraska, invites applications to fill a **POSTDOCTORAL RESEARCH ASSOCIATE** or **JUNIOR FACULTY** position. This position will have responsibilities for projects on tumor vaccines, and dendritic cell mobilization, or fas-ligand mediated T cell apoptosis by monocytes during stem cell therapy. Experience in flow cytometry, immunoregulation, and molecular immunology is required.

Send application with curriculum vitae, outline of research interests, and at least three references to: **James E. Talmadge**, Ph.D., Director of Transplantation Immunology, Pathology/Microbiology, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-3135. An Equal Opportunity/Affirmative Action Employer.

FELLOWSHIPS IN MATHEMATICS AND MOLECULAR BIOLOGY

Description: The Program in Mathematics and Molecular Biology (PMMB), with support from the National Science Foundation and the Burroughs Wellcome Fund, offers graduate and postdoctoral fellowships for training and research at the interface between mathematics and molecular biology. PMMB fellowships can be held at any university or college in the United States.

Deadline: February 1, 1998. Funding can begin between July 1, 1998, and December 1, 1998.

Contact: Program in Mathematics and Molecular Biology (PMMB), Department of Mathematics, Florida State University, Tallahassee, FL 32306-4510. Telephone: 904-644-8710; FAX: 904-644-6612; e-mail: pmmmb@math.fsu.edu; website: <http://www.math.fsu.edu/~pmmmb/>. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION IN MOLECULAR HERPESVIOLOGY

Available immediately; to study *in vitro* and *in vivo* aspects of virus infection and replication of a simian homolog of Kaposi's sarcoma-associated herpesvirus (KS-IV). Applicants must have experience in molecular biology and virology. Send curriculum vitae, reprints, names, and telephone numbers of three references to: **Dr. Scott W. Wong**, Division of Pathobiology and Immunology, Oregon Regional Primate Research Center, 505 N.W. 185th Avenue, Beaverton, OR 97006. E-mail: wongs@ohsu.edu. Affirmative Action/Equal Employment Opportunity.

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN SIGNAL TRANSDUCTION Harvard Medical School Massachusetts General Hospital

Several positions are available in the lab of **Joseph Avruch**, M.D., Diabetes Unit, now through spring 1998 for recent graduates with strong skills in mammalian molecular biology and/or protein purification. Ongoing work involves PI-3 kinase effectors, mTOR signaling, Raf and novel Ras effectors, and stress-activated protein kinase pathways. Prior experience with protein phosphorylation desirable. Outstanding scientific environment.

Please send curriculum vitae, the names and addresses of three references to: **Director of Laboratories, Molecular Biology Department**, Massachusetts General Hospital, Boston, MA 02114. FAX: 617-726-5649; e-mail: prendable@helix.mgh.harvard.edu.

POSTDOCTORAL FELLOWSHIP VIRUS-HOST CELL INTERACTION

An immediate opening is available for a Senior Postdoctoral Fellow to study the molecular mechanisms responsible for the pathogenesis of human parainfluenza viruses. Our laboratory's NIH-funded projects focus on the interaction of human parainfluenza virus type 3 with the host cell. Research experience in molecular and cell biology is essential, and experience in receptor biology, virology, protein chemistry, or biochemistry would also be an asset. Please submit a curriculum vitae and the names of three references to: **Dr. Anne Moscona**, Chief of Pediatric Infectious Diseases, Mount Sinai School of Medicine Box 1198, 1 Gustave L. Levy Place, New York, NY 10029-6574. E-mail: a_moscona@smplink.mssm.edu. We are an Equal Opportunity Employer fostering diversity in the workplace.

POSTDOCTORAL POSITION

National Jewish has a position available immediately for a qualified Ph.D. for immunology research focused on human interleukin-10 gene transcription regulation. U.S. citizens or permanent residents only. Candidates should have strong background in molecular biology with immunology desirable. E-mail or FAX a curriculum vitae, research interest, and three references to: **Dr. Larry Borish**, Department of Medicine. FAX: 303-398-1806; e-mail: borishl@njc.org.

National Jewish
Medical and Research Center
1400 Jackson Street
Denver, CO 80206

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POSTDOCTORAL POSITION available for a prokaryotic molecular biologist to develop bacterial strains for the production of amino acids and vitamins. Archer Daniels Midland (ADM), with 13 billion dollars in total sales, is a major producer of amino acids and vitamins for use in animal feeds. ADM has the newest and largest state-of-the-art fermentation facility in the world and is committed to further expansion in the area of fermentation products. Applicants must have experience in bacterial genetics and physiology, and hands-on knowledge of the latest recombinant DNA techniques. Starting salary will be \$45,000. Must be a U.S. citizen or a permanent U.S. resident. Send résumé to: **Thomas P. Binder**, Ph.D., Archer Daniels Midland Co., Fermentation Research, 1001 Brush College Road, Decatur, IL 62526.

POSTDOCTORAL POSITION available in molecular oncology to study mechanisms and regulation of GTPase-activating protein mediated tumor suppression. Candidates should have strong background in molecular, cellular biology, and/or biochemistry. Applicants should have a Ph.D. and not more than five years of postdoctoral experience. Send curriculum vitae and references to: **Dr. Raymond Yeung**, Division of Medical Genetics, University of Washington School of Medicine, Box 357742, Seattle, WA 98195. An Equal Opportunity Employer.

POSTDOCTORAL FELLOW position available for research on Epstein-Barr virus involving regulation of gene expression and antiviral drugs. Experience with molecular biologic techniques and tissue culture required. Interesting projects and excellent training environment. Send letter and curriculum vitae to: **Joseph S. Pagano**, M.D., University of North Carolina, Lineberger Comprehensive Cancer Center, Campus Box #7295, Chapel Hill, NC 27599.

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Allelix Neuroscience Inc. is the U.S. subsidiary of the integrated neuroscience business unit of Allelix Biopharmaceuticals Inc. of Mississauga, Ontario, Canada – an established biopharmaceutical company. With a strong technology platform underlying a balanced pipeline of innovative product candidates, **Allelix Neuroscience** is poised to be a leader in the neuropharmaceuticals marketplace. We are seeking to fill several positions at our U.S. site, located in South Plainfield, New Jersey, approximately 40 minutes from New York City.

Drug Development **Director, Drug Development**

Liaising with drug discovery teams, you will be responsible for the coordination of all development activities and the preparation of the preclinical component of regulatory filings. An advanced degree and at least 5 years' pharmaceutical industry experience are required.

Drug Metabolism and Pharmacokinetics

Pharmaceutical industry experience at the B.S., M.S. or Ph.D. level is essential. You will work closely with drug discovery teams and use state-of-the-art instrumentation.

Drug Discovery **Behavioral Neuropharmacology**

You will play a key role in the characterization of drug candidates at the behavioral and neurochemical levels. Complementing your Ph.D. is previous experience in neuroanatomy, microdialysis and behavioral analysis.

We offer a competitive salary and benefits package, as well as excellent potential for career growth. Please send your resume, indicating position of interest, to: **Human Resources Department, Allelix Neuroscience Inc., 40 Cragwood Rd., South Plainfield, NJ 07080**
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Department of Molecular Medicine/ Institute of Biotechnology University of Texas Health Science Center at San Antonio

The Department of Molecular Medicine invites applications for three tenure-track positions at the Assistant Professor level and above. We are particularly interested in candidates focusing on carcinogenesis, development, tumor suppressor genes, growth factors, and DNA repair, although outstanding scientists in other fields of investigation are also strongly encouraged to apply. Applicants for the Assistant Professorship should have adequate postdoctoral training and a substantial record of contributions to the peer-reviewed literature. Applicants for more senior positions should have an established research program and extensive experience in training graduate students and postdoctoral fellows.

We offer highly competitive salaries and an excellent startup package including modern laboratory space, funds for personnel and supplies, and state-of-the-art core facilities. Successful applicants will also be appointed faculty in the Molecular Medicine Graduate Program. The city of San Antonio offers an unmatched mix of excellent housing, leisure, and cultural opportunities, and is located just south of the scenic Texas Hill Country.

Please send curriculum vitae, reprints of three representative publications, a one-page statement of research accomplishments and objectives, and the names of three or more referees by November 30, 1997 to:

**Patrick Sung, Associate Professor
Department of Molecular Medicine
University of Texas Health Science Center
15355 Lambda Drive
San Antonio, Texas 78245-3207**

*The University of Texas is an Equal Employment Opportunity
Affirmative Action Employer*

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to aid in development of a mouse transgenic model of prion-related disease. Previous experience with transgenics a plus; strong background in molecular biology required. Send or e-mail curriculum vitae to: **Robert B. Petersen, Ph.D., Department of Pathology, Case Western Reserve University, 2085 Adelbert Road, Cleveland, OH 44106. E-mail: rbp@po.cwru.edu.**

POSTDOCTORAL POSITIONS IN MOLECULAR CANCER BIOLOGY

Two positions are immediately available to participate in ongoing research projects involving the mechanisms of tumor cell growth regulation by polypeptide factors, with emphasis on signal transduction, cell cycle regulation, and DNA-repair pathways. Ph.D. in biochemistry/molecular biology is required.

To apply, send curriculum vitae along with the names, addresses, and telephone numbers of three references to: **Rakesh Kumar, Ph.D., Cell Growth Regulation Section, Box 36, University of Texas-M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030. Equal Employment Opportunity/Affirmative Action, smoke-free environment.**

POSTDOCTORAL POSITION. A position is available immediately to study the role of intracellular calcium in the cholinergic regulation of ionic channels in cardiac myocytes. These studies will involve single cell patch clamp recording methods and intracellular calcium imaging including confocal microscopy. Applicants must have a Ph.D. or M.D. degree with expertise in single cell electrophysiological recording methods using patch clamp technology. Experience with intracellular calcium ion measurements using calcium sensitive dyes and fluorescence microscopy is desirable. Please send curriculum vitae and the names and addresses of three references to: **Stephen Lipsius, Ph.D., Loyola University Chicago, Stritch School of Medicine, Department of Physiology, 2160 South First Avenue, Maywood, IL 60154.**

PROTEOMICS/FUNCTIONAL GENOMICS

POSTDOCTORAL POSITIONS available immediately to develop new technologies for high-throughput analysis of complex systems at the molecular level. Highly motivated individuals with solid experience in 2-D gel electrophoresis, mass spectrometry, or bioinformatics are encouraged to apply. Fellows will participate in an intensive team effort to develop new technologies for mass mapping of proteins. Experience with yeast or human tissue a major plus. Contact: **P. C. Andrews, Department of Biological Chemistry, University of Michigan Medical School, Ann Arbor, MI 48109-0674. FAX: 313-936-2638; e-mail: andrewsp@umich.edu.**

Equal Opportunity/Affirmative Action Employer.

SENIOR POSTDOCTORAL FELLOWSHIP opening for Ph.D. in molecular biology. Successful candidate will have completed some training in gene therapy. Requirements include experience in viral and non-viral vector for *in vivo* gene transfer and gene transfer techniques in mammalian cells, good publications record, and good writing skills. Salary and benefits competitive; possible long-term position. Send résumé, cover letter, and the names of three references to: **David Baylink, M.D., P.O. Box 7210, Loma Linda, CA 92354.**

POSTDOCTORAL FELLOWSHIP available to study the host-parasite interaction of *Toxoplasma gondii*. Individuals with experience in microbial immunity and/or molecular biology are encouraged to apply for this two- to three-year NIH-supported Fellowship. Please send cover letter regarding research interests and curriculum vitae to: **Lloyd H. Kasper or Intiaz A. Khan, Dartmouth Medical School, Lebanon, NH 03756. FAX: 603-650-1299; e-mail: lloyd.kasper@dartmouth.edu.**

POSTDOCTORAL POSITION to study *S. aureus* enterotoxin A and its interaction with the immune system in a collaborative project between the University of Maryland and the FDA. Independent and creative candidates with experience in protein characterization and molecular biology send résumé and names of references to: **Dr. Linda Rasooly, 648 Ross Building, 720 Rutland Avenue, Baltimore, MD 21205.**

POSITIONS OPEN

NIH-supported **POSTDOCTORAL TRAINING GRANT POSITION** for scientists or clinicians (Ph.D. and/or M.D., D.D.S., D.V.M.) to conduct research on communication among the nervous, endocrine, and immune systems is currently available. Applicants must be U.S. citizens or permanent residents of the United States. Applicants should submit a letter stating research interests along with curriculum vitae and three references to: **Dr. Ronald Glaser, Department of Medical Microbiology and Immunology, 2175 Graves Hall, 333 West 10th Avenue, Columbus, OH 43210. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era veterans, disabled veterans, and individuals with disability are encouraged to apply.**

POSTDOCTORAL FELLOWSHIP available to study the molecular immunology of dendritic cell function and differentiation from hematopoietic precursors, with particular attention to defects in these pathways in tumor-bearing animals and humans. At least three years of NIH support is available. Experience in molecular biology or molecular immunology is required. Please send a curriculum vitae and the names of three references to: **Dr. David Carbone, The Vanderbilt Cancer Center, 648 Medical Research Building II, Nashville, TN 37232-6838. FAX: 615-936-3322; e-mail: d.carbone@vanderbilt.edu.**

POSTDOCTORAL POSITIONS are available to study the (1) molecular effects of p53 expression in the liver of transgenic mice, to develop liver stem cell/transplantation models and to construct and test a vaccine for syphilis, or (2) the immunomodulation of cells via cell surface modification as applied to transfusion and transplantation medicine. Candidates should have a strong background in molecular biology, tissue culture, or microbiology. Send curriculum vitae and three letters of reference to: **Stewart Sell (position 1) or Mark Scott (position 2), Department of Pathology, Albany Medical College, Albany, NY 12208-3479.**

The Hospital for Sick Children, a health care and research centre, affiliated with the University of Toronto, has a **POSTDOCTORAL POSITION** available in the Lung-Gene Therapy Group to study the intracellular fate of plasmid-DNA and CFTR. Candidates with a strong background in molecular cell biology and biochemistry are encouraged to apply by sending their curriculum vitae and names of three referees to: **Ms. A. Ambrus, c/o Dr. G. L. Lukacs, Hospital for Sick Children, Respiratory Research, 555 University Avenue, Toronto, Ontario M5G 1X8 Canada. E-mail: aambrus@sickkids.on.ca.**

POSTDOCTORAL POSITION to study basic mechanisms of epilepsy and neuronal injury in the immature brain. Project will focus on seizure and injury-induced changes in neurotransmitter receptor subunits, neurotrophins, and signal transduction, to correlate with *in vivo* studies and *in vitro* electrophysiological studies in acute and organotypic brain slices. Strong experience in molecular techniques required. Send curriculum vitae and three references to: **Dr. F. E. Jensen, Division of Neuroscience, Enders 249, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115.**

POSTDOCTORAL FELLOW

To study the role of novel cytokines in viral immunity and pathogenesis, with special emphasis in Herpes virus models. The applicant should have a strong background in immunology and virology. Experience in molecular biology would be an advantage. Please send a curriculum vitae and the names of three references to: **Dr. Sally Sarawar, La Jolla Institute for Allergy and Immunology, 10355 Science Center Drive, San Diego, CA 92121.**

POSTDOCTORAL POSITION available immediately to study the role of mammalian class I myosins. Experience in biochemistry, cell or molecular biology is required. Send curriculum vitae, summary of relevant experience, and names of three references to: **Dr. Lynne Coluccio, Boston Biomedical Research Institute, 20 Staniford Street, Boston, MA 02114. FAX: 617-523-6649; e-mail: coluccio@bbri.harvard.edu. Equal Opportunity Employer.**

POSTDOCTORAL POSITION. Start-up Biotech. January 1st, 1998. Molecular biology. Differential gene expression in cancer. Experience with technology development for two-hybrid, microdissection, *in situ* hybridization, or prostate cancer required. Contact by e-mail preferred: **Bill Raschke, Phenotypics, 3099 Science Park Road, San Diego, CA 92121. E-mail: phenotypic@aol.com.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP in molecular biology available immediately for work on signal transduction mechanism in bone cells involving MAP kinases. Salary and benefits competitive. Possibility of long-term position exists. Send letter of interest, curriculum vitae, and names of three references to: **Dr. W. Lau, Mineral Metabolism Laboratory, P.O. Box 7210, Loma Linda, CA 92354.**

POSTDOCTORAL POSITION available immediately to study the neurochemistry and neurophysiology of dendritic dopamine release in the substantia nigra. The project will involve voltammetric detection of dopamine and whole cell recording from dopamine neurons. Preference will be given to applicants already familiar with one of these techniques. Please send curriculum vitae and names of three references to: **Dr. Margaret E. Rice, Department of Physiology and Neuroscience, New York University School of Medicine, 550 First Avenue, New York, NY 10016. E-mail: ricem01@med.nyu.edu. NYU is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIP is available in a receptor biology laboratory to investigate molecular mechanisms associated with receptor-based growth inhibition of brain tumors. The candidates must have U.S. citizenship/permanent residency with experience in biochemical and molecular biology techniques. Interested candidates should send their curriculum vitae with names of two references to: **Dr. Donald O'Rourke/Prof. Mark I. Greene, Department of Pathology and Laboratory Medicine, University of Pennsylvania, Philadelphia, PA 19104-6082. E-mail: orourke@mail.med.upenn.edu or greene@reo.med.upenn.edu.**

POSTDOCTORAL POSITION available immediately to study neurotransmitter activation of store-coupled Ca currents in neurons. Candidates should have experience with patch clamp recordings from mammalian neurons and intracellular Ca measurements and/or molecular biology. Send curriculum vitae and the names of three references to: **Dr. Jeffry Lansman, Department of Cellular and Molecular Pharmacology, School of Medicine, University of California, San Francisco, CA 94143-0450. Telephone: 415-476-1322; e-mail: jeffl@itsa.ucsf.edu.**

POSTDOCTORAL POSITION to investigate the catalytic mechanism and proton transfer in the carbonic anhydrases and superoxide dismutases. Projects involve rapid kinetic methods, magnetic resonance, molecular modeling, and mutagenesis. Experience with recombinant DNA technology helpful. Send curriculum vitae and the names of three references to: **Dr. David N. Silverman, Box 100267 Health Center, University of Florida, Gainesville, FL 32610-0267. E-mail: silvrnm@nervm.nercd.ufl.edu. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS are available to study control mechanisms of cytokine signal transduction and gene expression. Candidates with background in molecular biology or biochemistry should send curriculum vitae and addresses of three references to: **Dr. Yu-Chung Yang, Indiana University School of Medicine, 1044 West Walnut Street, R4-202, Indianapolis, IN 46202. Telephone: 317-274-7512; FAX: 317-274-0396; e-mail: yu-chung.yang@iucc.iupui.edu. Indiana University is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOW, Emory University. Participate in studies of transcriptional regulation of insulin-like growth factors and their binding proteins. Should have experience with cell culture, subcloning, transfection, footprinting, other molecular techniques. Must be U.S. citizen or permanent resident. Send curriculum vitae and three references to: **Lawrence S. Phillips, M.D., Division of Endocrinology, Emory University, 1639 Pierce Drive, WMRB 1301, Atlanta, GA 30322.**

POSTDOCTORAL FELLOWSHIP in molecular genetics available immediately for work in genetic studies of mice dealing with regulation of marrow-bone cell interactions. Ph.D. required. Position involves interactions with large, multidisciplinary lab of Ph.D.'s and M.D.'s performing osteoporosis-related research. Salary and benefits are competitive. Send cover letter and curriculum vitae to: **Ms. C. Farrell, Mineral Metabolism Laboratory, P.O. Box 7210, Loma Linda, CA 92354.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH FELLOW COLUMBIA UNIVERSITY COLLEGE OF PHYSICIANS AND SURGEONS

Experience in molecular biology and protein chemistry required. Experience with or willingness to work with laboratory animals in a premier stroke/vascular biology laboratory. M.D. or Ph.D. required. Send résumé to: Evelyn Smith, Neurological Institute, Room 204, 710 West 168th Street, New York, NY 10032. Columbia University takes Affirmative Action to ensure Equal Opportunity.

ANNOUNCEMENTS

HUMAN LIVER FOR SCIENTIFIC INVESTIGATION National Institute of Diabetes and Digestive and Kidney Diseases

The Liver Tissue Procurement and Distribution System (LTPADS) is a National Institutes of Health (NIH) service contract to provide human liver from regional centers for distribution to scientific investigators throughout the United States. These USA regional centers have active liver transplant programs with human subjects approval to provide portions of the resected pathologic liver for which the transplant is performed. Frozen or fresh tissue is available from subcontractors for the usual forms of childhood and adult cirrhosis, fulminant liver failure, chronic rejection, and certain inborn errors of metabolism. Human pathologic liver prepared according to the investigator's specifications provides the opportunity to verify if animal liver investigations are relevant to human liver pathophysiology. The preparation of these livers has been excellent for the usual molecular biologic techniques for the past 10 years. "Normal" liver specimens may be requested; however, the supply is appropriately much more limited and completion of proposal requests take a longer time than for most pathologic liver specimens.

A new service is in the planning stage to provide isolated liver cells; thus we encourage new proposals requesting hepatocytes from "normal" or preferably pathologic human liver obtained at the time of transplantation. NIH investigators are always given preference for requests. Supporting letters for NIH new or renewal grant requests can be provided.

Further information, proposal forms, and requests for supporting letters can be obtained from:

Harvey L. Sharp, M.D.
c/o Annette Robles Mace, Box 185 UMHC
Fairview University Hospitals and Clinics
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**SHORT COURSE ON TIME-RESOLVED
FLUORESCENCE SPECTROSCOPY.** The Center for Fluorescence Spectroscopy, at the University of Maryland School of Medicine, is offering a short course on "Principles and Applications of Time-Resolved Fluorescence Spectroscopy" in Baltimore, March 23-27, 1998. The course will cover basic and advanced topics in fluorometry, including time- and frequency-domain measurements, Forster energy transfer, chemical sensing, imaging, fiber optics, infrared fluorometry, two-photon excitation, instrumentation, and fluorescence microscopy. Textbook, course materials, lunches, and refreshments will be provided. The instructors include Dr. J. R. Lakowicz, Dr. I. Gryczynski, and Dr. R. B. Thompson. For further information, a schedule, and fees, please contact: Ms. Mary Rosenfeld or Professor J. R. Lakowicz, Center for Fluorescence Spectroscopy, Department of Biochemistry and Molecular Biology, 725 West Lombard Street, Baltimore, MD 21201. Telephone: 410-706-8409; FAX: 410-706-8408; e-mail: cfs@cfs.umbi.umd.edu; website: <http://cfs.umbi.umd.edu>. Deadline for enrollment is January 14, 1998, with later enrollment if space permits.

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain the Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: Lawrence Shattuck, M.Ed., The New England College of Optometry, The Office of Admissions, 424 Beacon Street, Boston, MA 02115.

EUROPEAN CAREER OPPORTUNITIES



MAX-PLANCK-INSTITUT FÜR CHEMISCHE ÖKOLOGIE

Two POSTDOCTORAL POSITIONS in molecular genetics of insect resistance in *Arabidopsis* are available in the Department of Molecular Genetics and Evolution at the Max-Planck-Institut für chemische Ökologie in Jena, Germany. We seek Plant Biologists to study the molecular and genetic basis of interactions between plants and insects using modern methods in *Arabidopsis*. Additional information can be found at website: <http://www.mpg.org/ICE.htm>.

Review of applications will begin 15 November 1997, and continue until suitable candidates have been found. Please send curriculum vitae, statement of research interests, and telephone numbers of three references to: Thomas Mitchell-Olds, Max-Planck-Institut für chemische Ökologie; Tatzendpromenade 1, 07745 Jena, Germany. Telephone: 49-3641-643666; e-mail: tmo@arabis.net.

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FAX: 0039+565-904480
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CONFERENCE

RECOMB 98: SECOND INTERNATIONAL CONFERENCE ON COMPUTATIONAL MOLECULAR BIOLOGY March 22-25, 1998, New York City

Sponsored by ACM-SIGACT and with support from SLOAN and DOE. Invited speakers: J. Lederberg, D. Cox, R. Davis, C. Cantor, T. Caskey, K. Gubernator, M. Levitt, D. Schwartz, J. Yates. Organizers: S. Istrail, R. Karp, T. Lengauer, P. Pevzner, R. Shamir, and M. Waterman. Contact: P. Pevzner, Program Chair, G. Benson, Local Arrangements Chair, E. Kolker, Publicity Chair. Website: <http://www.mssm.edu/biomath/recomb98.html>; Telephone: 212-241-5777; FAX: 212-860-4630.

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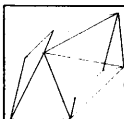
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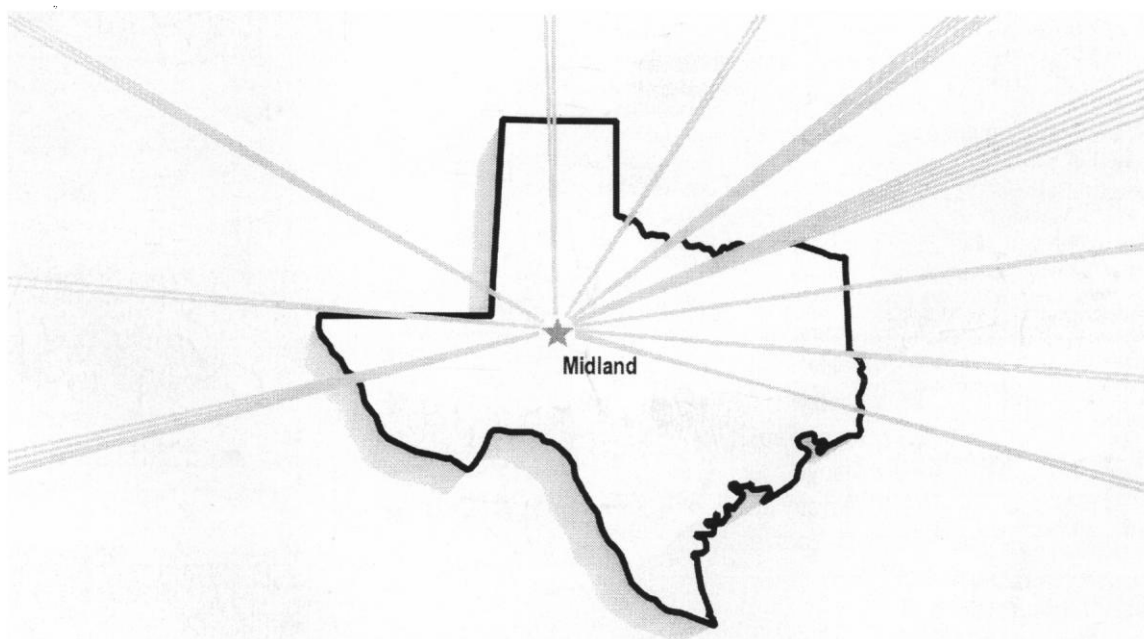
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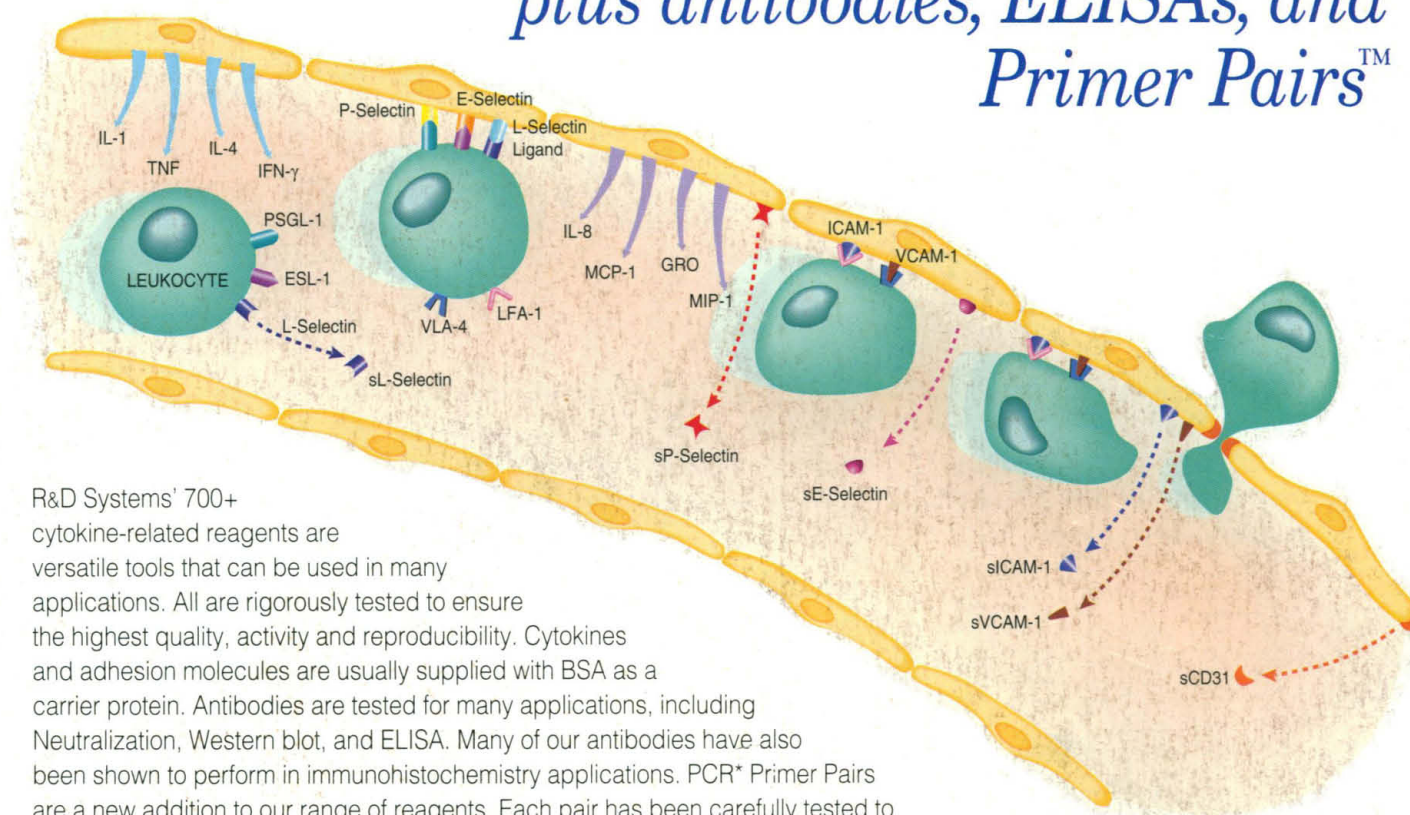
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sE-Selectin	✓	✓	✓	✓	✓
sL-Selectin	✓	✓		✓	✓
sP-Selectin	✓	✓		✓	✓
sCD31 (PECAM-1)	✓	✓		✓	

*PCR is covered by US Patent Nos 4683195 and 4683202 assigned to Hoffmann-LaRoche

CYTOKINES	Human ELISA	Recombinant human protein	Anti-human polyclonal antibody	Anti-human monoclonal antibody	PCR Primer Pairs
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IL-1β	✓	✓	✓	✓	✓
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IL-8	✓	✓	✓	✓	✓
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