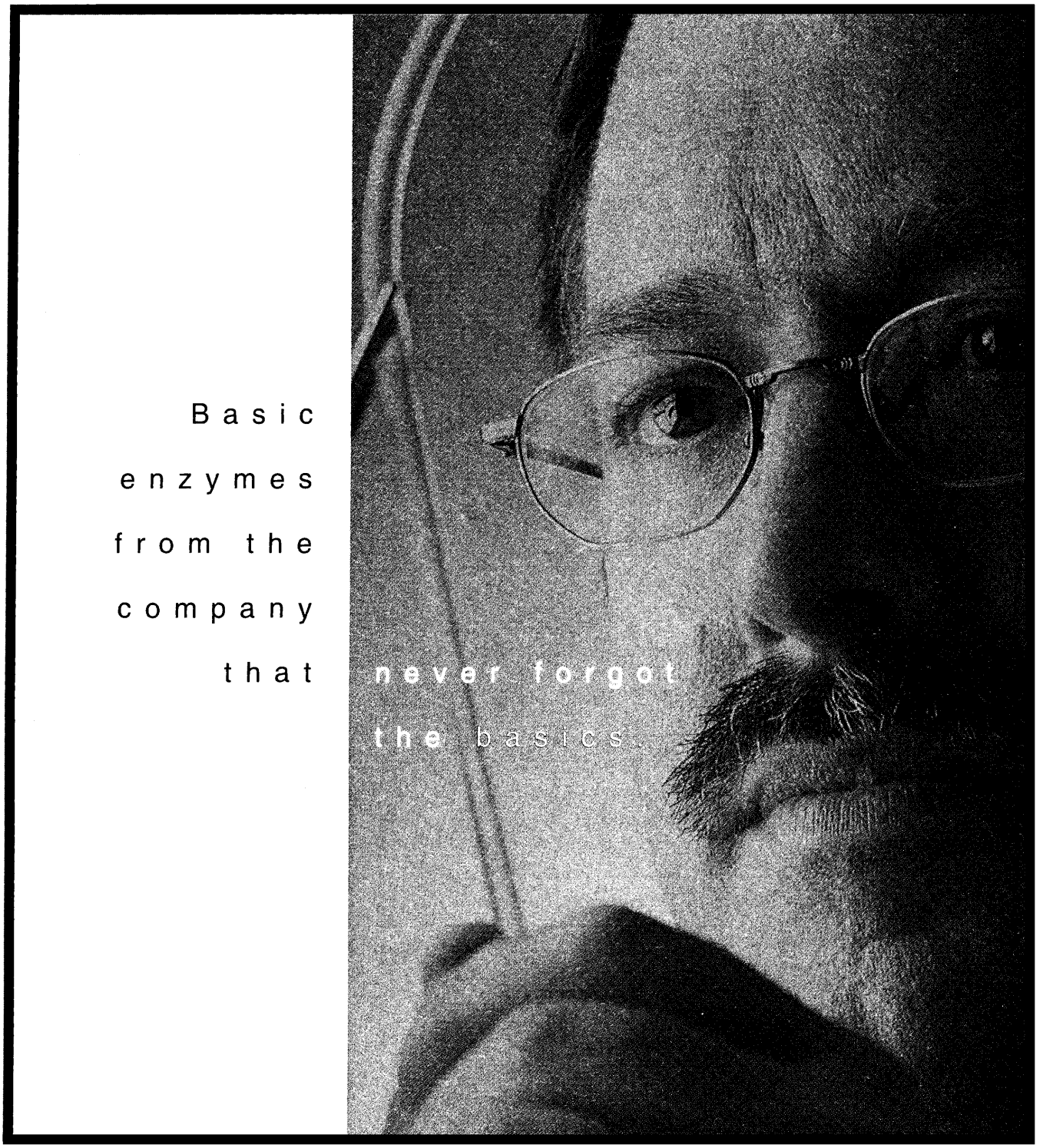

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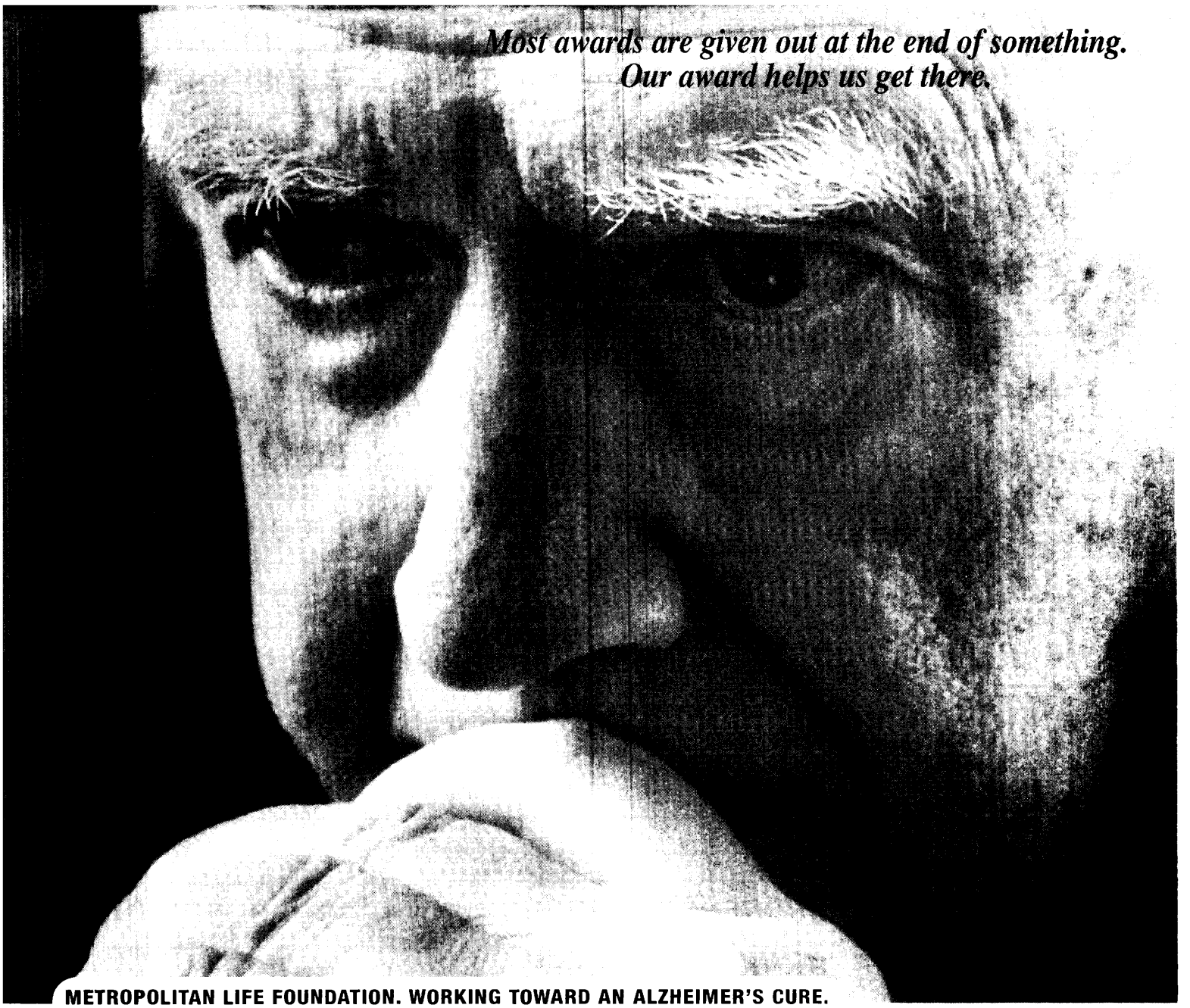

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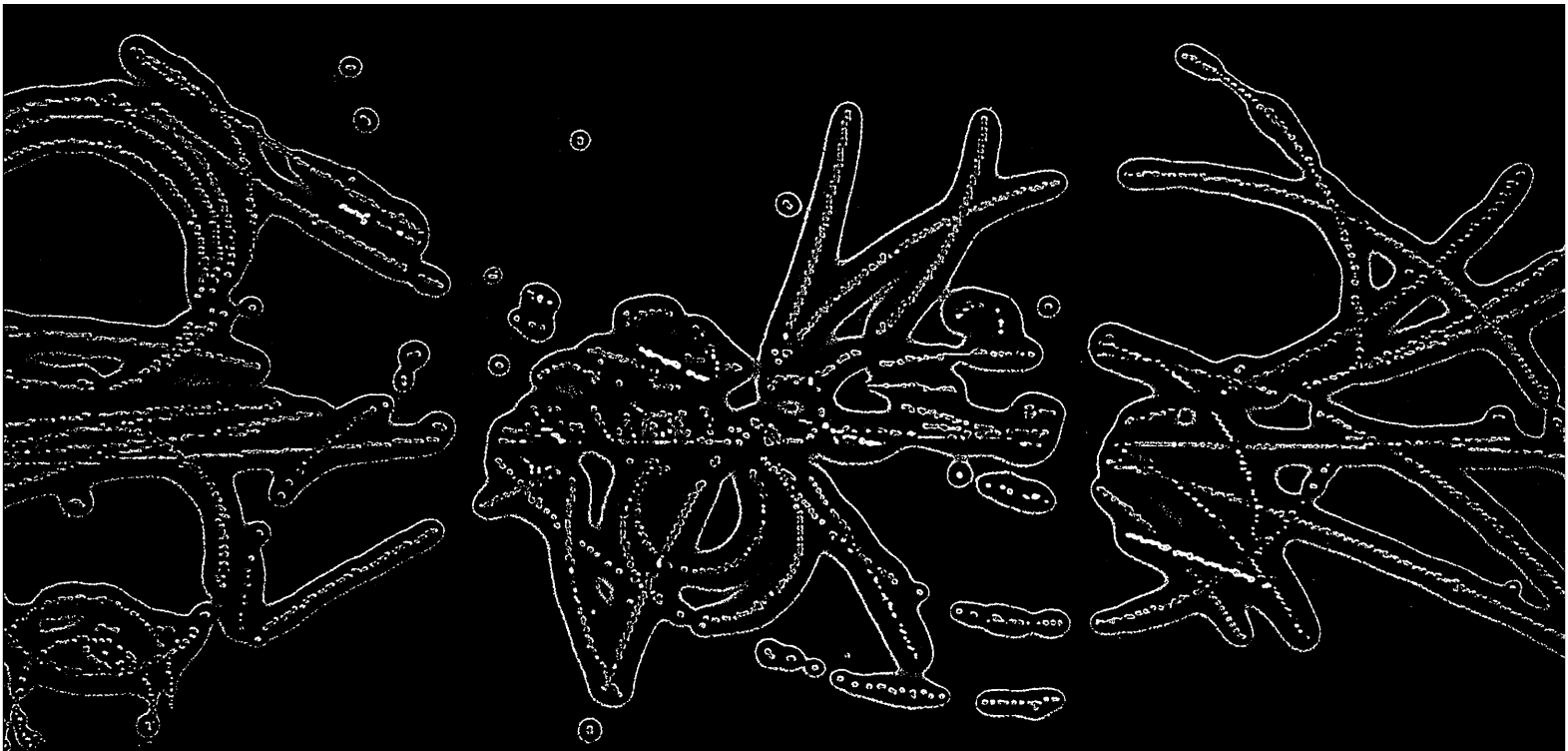

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1. Inception for all TIAA-CREF Mutual Funds was 9/2/97. Returns are as of 12/31/99. 2. Source: Morningstar 2/28/99. Based on Morningstar objectives. Taxable Money Market-ICI objective, via Simfund 6/30/99. The average does not include index funds. TIAA-CREF expenses are subject to change and are not guaranteed for the future. The investment results shown above reflect past performance and are not indicative of future rates of return. These returns and the value of the principal you have invested will fluctuate, so the shares you own may be more or less than their original price upon redemption. 3. Source: *Barron's* magazine May 18, 1998. *Barron's* is a registered trademark of Dow Jones L.P. TIAA-CREF Individual and Institutional Services, Inc., distributes CREF certificates and interests in the TIAA Real Estate Account. Teachers Personal Investors Services, Inc., distributes the variable component of the personal annuities, TIAA-CREF Mutual Funds and tuition savings agreements. TIAA and TIAA-CREF Life Insurance Co. issue insurance and annuities. TIAA-CREF Trust Company, FSB provides trust services. **Investment products are not FDIC insured, may lose value and are not bank guaranteed.** The Money Market fund is neither insured nor guaranteed by the FDIC or any other U.S. government agency. Although the Fund seeks to preserve the value of your investment at $1.00 per share, it is possible to lose money by investing in the Fund. For more complete information on our mutual funds, including charges and expenses, call 1 800 842-1924 for the prospectus. Read it carefully before you invest or send money. ©2000 TIAA-CREF 1/00

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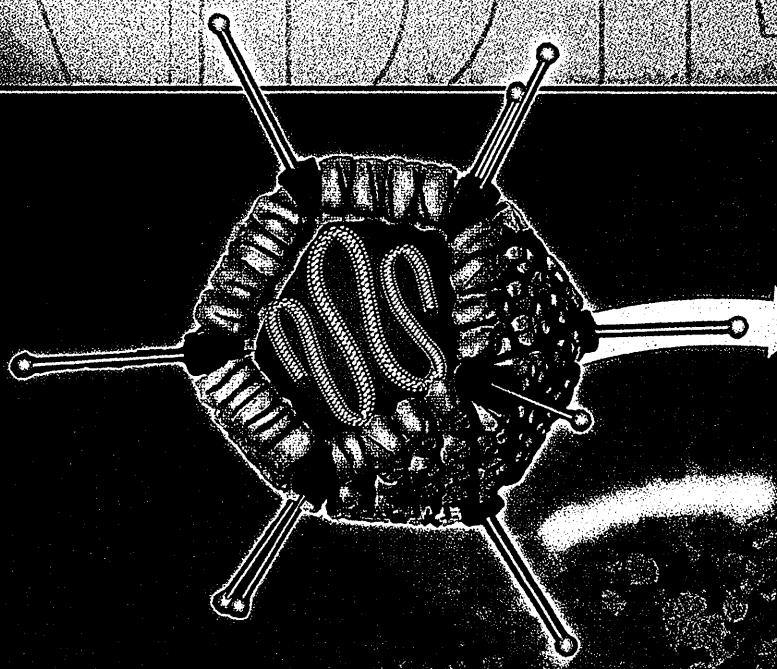

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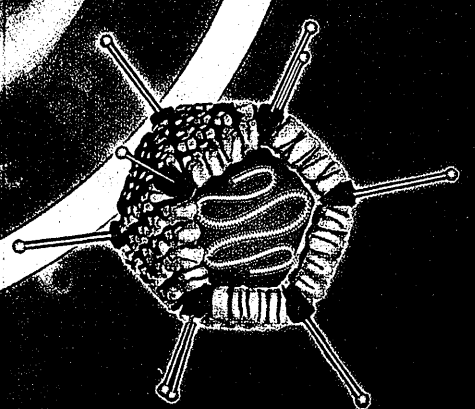

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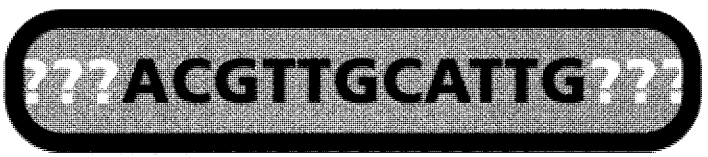

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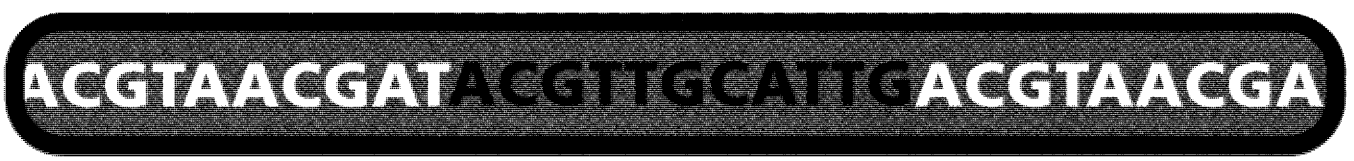

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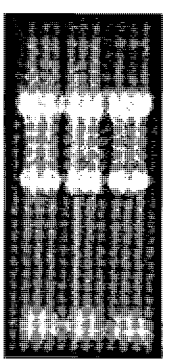

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- Sealants
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- Surface/Molecule Interactions
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- Intramolecular Interactions
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- Protein Trafficking
- Transport ATPases
- Assembly of Inner Membrane Complexes
- Peptidylglycan Assembly
- Outer Membrane Proteins
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- Type IV Pili
- Bacteria - Host Interactions

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Leena Bruckner-Tuderman, Vice-Chair

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- Remodelling of the Extracellular Matrix in Development and Disease
- Genetic Characterization of the Extracellular Matrix
- Genetics of the Basement Membrane
- Proteoglycans Structure and Function
- The Extracellular Matrix in Neural Development
- Signal Transduction Through Extracellular Matrix Receptors

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- Impact of Bionanotechnology on Bioanalysis: Future Prospects
- Recognition/Transduction Using Molecular Imprinting
- Post-translational Modifications of Proteins, New Challenges in Bioanalysis
- Novel Approaches to Signal Amplification
- Tandem Separation Recognition Transduction/In Vivo Sensing Schemes
- Array-based Detection for Complex Sensing
- Panel Discussion - Bringing Sensors to Market
- Optimizing Assay Design: Geometry Versus Performance
- Bioanalytical Challenges in the Regulatory Environment/Impact of Regulations on Monitoring GMOs

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Gregg Whited, Co-Chairs
Jon D. Stewart &
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- Enzyme Design
- Enzyme Discovery
- Metabolic Pathway Engineering
- Bioinformatics
- Bioprocess Engineering
- Directed Evolution

- Enzyme Catalysis in Organic Synthesis
- Large Scale Conversions

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Jan Walleczek, Vice-Chair

- Endogenous Electric Fields:
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  - II) Role in Cell and Tissue Morphogenesis
  - III) Methodologies for Transmembrane Potential Difference Determination
  - IV) Signal Transmission Through Artificial Synapses
- Experimental Modifications of the TMP Difference Using High Voltage Electric Pulses:
  - I) Fundamentals, from Lipid Bilayers to New Data and Models of Cell Electro (-Permeabilisation) (-Poration)
  - II) Biological Consequences and Biotechnological Applications
  - III) Preclinical and Clinical Applications
- New Aspects on the Physiological Role of the Trans-Membrane Potential Difference:
  - I) Role in the Sensing of Electric Fields, Magnetic Fields
  - II) Role In Non Mammalian Cells

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- Stimulation of Formation Inhabitation of Degradation
- Muscle and Nerve - Repair and Regeneration
- Cartilage Repair and Regeneration
- Bone Repair and Regeneration
- Ligament Repair and Regeneration
- Replacement of Bone and Joints

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- Variations on Transcription, Translation, and DNA Repair
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- Post-Translational Mechanisms
- Mechanisms in Symbiotic Relationships
- Chaperones and Stress Responses
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- New Techniques to Address Regulatory Mechanisms
- Regulatory Mechanisms in Physiological Ecology
- Late-Breaking Areas

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- Regulation of Mineral Formation
- Organic-Inorganic Interface
- Mineralization at Non-Skeletal Sites
- Inspiration From Nature: Biomimetics
- Improving on Nature: Engineering New Materials
- New Strategies for Mapping Biomineralization
- Evolution of Biomineralization

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- Chemistry and Biology of Neurodegenerative Disease
- Seven-Transmembrane Receptors
- Enzyme Mechanism and Inhibition
- Nucleic Acids
- Chemical Biology I, II
- Ion Channels
- Genomics and Proteomics

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- Ca Transporters
- Signal Transduction
- Hypertrophic Signalling
- Workshops
  1) Controversies in E-C Coupling
  2) Animals/Models of Hypertrophy/HF
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- Vesicle Transport and Docking
- Endocytosis and Membrane Dynamics
- Organization of Transporters and Receptors
- Postsynaptic Organization and Signalling Mechanisms
- Signal Processing by Nerve Cells
- Synapse Formation in the Immature and Mature Brain
- Mechanisms of Synapse Maintenance and Plasticity

CELLULAR & MOLECULAR MYCOLOGY
HOLDERNESS SCHOOL
PLYMOUTH, NH
JUN 18-23, 2000
Tom Adams &
Beth J. DiDomenico, Co-Chairs
Regine Kahmann &
Matthew S. Sachs, Co-Vice-Chairs

- Comparative Genomics
- Fungal Development
- Evolution and Population Genetics
- Morphogenesis and Cell Biology
- Epigenetic Mechanisms
- Signalling Mechanisms and Gene Regulation
- Pathogenic Mechanisms
- Pathogenic Interactions
- Metabolic Regulation

CERAMICS, SOLID STATE STUDIES IN
KIMBALL UNION ACADEMY
MERIDEN, NH
AUG 6-11, 2000
Gregory S. Rohrer, Chair
Stephen J. Bennison, Vice-Chair

- Solid State Crystal Growth
- Grain Boundary Engineering
- Charged Boundary Layers
- Interface Dynamics and Motion, A.M. Cruickshank Lecture
- Texture
- Mesoscale Design and Control
- Impact of Length Scale on Microstructure and Grain Boundary Studies (Panel)
- Grain Boundary Character/ Property Relationships
- Cooperative Education in Ceramics

CHEMICAL PHYSICS SUMMER SCHOOL
ROGER WILLIAMS UNIVERSITY
BRISTOL, RI
JUN 18-30, 2000
Shaul Mukamel &
Rudy Marcus, Co-Chairs

- Liquid Structure, Dynamics and Solvation
- Control of Electron and Optical Transport Through Molecules and Materials
- Random Walks: From Brownian Motion to Anomalous Diffusion
- Response Functions of Polymers
- Path Integrals
- Approximations and Analytic Methods in Rate Processes
- Semiclassical Dynamics in Phase Space
- Semiclassical Theory, Chemical Reaction Rates, TST, etc.
- Nonlinear Spectroscopy
- Chemical Dynamics
- Analytical Methods in Vibrational Dynamics and Electron Transfer Theory

- Exciton, Polarons, Electron-Phonon Interactions, and Optical Properties in Solids
- Gedankentheories for Rate Processes in Complex Systems
- Clusters
- Dividing Surfaces and Phase Space Integrals in Transition State Theory

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CHEMOTACTIC CYTOKINES
KIMBALL UNION ACADEMY
MERIDEN, NH
JUL 23-28, 2000
Steve Kunkel, Chair
Phil Murphy, Vice-Chair

- The Chemokine Repertoire
- Mechanisms of Chemokine Action
- Chemokine Pathways That Regulate Innate Immunity
- Chemokine Paradigms In Adaptive Immunity
- Chemokine Biology During the Evolution of Chronic Disease
- Diverse Biologic Activities of Chemokines as Cancer Develops
- The Role of Chemokines and Chemokine Receptors During Viral Infections
- Small Molecular Weight Chemokine Receptor Antagonists

CHEMOTHERAPY OF EXPERIMENTAL/CLINICAL CANCER
QUEEN'S COLLEGE
OXFORD, UK
SEP 17-22, 2000
Annette K. Larsen, Chair
Edward Sausville, Vice-Chair

- Pediatric Tumors; Novel Therapeutic Strategies
- Tubulin-Interacting Agents
- DNA Topoisomerases
- Drug Resistance
- Imaging in Cancer Drug Development
- Tumor Angiogenesis
- Oncogene-Directed Therapy
- Cellular Organization and Tensegrity

CHROMATIN STRUCTURE & FUNCTION
TILTON SCHOOL
TILTON, NH
JUL 16-21, 2000
Susan M. Gasser, Chair
C. David Allis, Vice-Chair

- Histone Modifications
- Heritable States
- Genome Stability
- Heterochromatin
- Chromosome Dynamics
- Chromatin Domains
- Nuclear Order
- Chromatin and Transcription
- Nucleosome Remodelling

COMBINATORIAL CHEMISTRY
IL CIOCCO
BARGA, ITALY
MAY 28 - JUN 2, 2000
Thomas R. Beattie &
Stephen Kaldor, Co-Chairs
John S. Kiely &
Hans Ulrich Stilz, Co-Vice-Chairs

- Library Design
- High Throughput Analysis and Purification
- Functionalized Resins and Reagents
- Diversity Analysis / Computational Aspects
- Case Studies of Successful Combichem
- Combichem Education
- Complex Molecule Combichem
- Combichem in Biology, Catalysis and Materials Science
- Synthetic Methods Development

COMPLEX FLUIDS
SALVE REGINA UNIVERSITY
NEWPORT, RI
AUG 13-18, 2000
Thomas A. Witten, Chair
Armand Ajdari, Vice-Chair

- Liquid Interfaces. Patterned Wetting; Electrofluidics
- Free Liquid Interfaces: Singular Flows
- Structured Liquid Interfaces: Polymers and Liquid Crystals
- Fluid Membranes: Distorted Surfactant Bilayers
- Textured Surfactant Monolayers
- Soft Elastic Membranes: Polymer Shells snd Capsules
- Stress Release in Biostructures
- Elastic Interfaces: Stress-Induced Patterns
- Defect Networks: Foams and Textured Liquid Crystals

COMPUTATIONAL CHEMISTRY
QUEEN'S COLLEGE
OXFORD, UK
JUL 2-7, 2000
Terry Stouch, Chair
Bernard Brooks &
Michael Zerner, Co-Vice-Chairs

- Bioinformatics and Chemoinformatics
- Advances in the Use of Quantum Chemistry
- Nobel Symposium in Quantum Chemistry
- Advances in Force Fields and Polarizability
- Solvation
- Advances in Molecular Simulation
- Drug Design
- Materials and Crystal Packing
- Status and Future of Computing Hardware and Software

CORRELATED ELECTRON SYSTEMS
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUN 25-30, 2000
Andrew J. Millis &
John Mydosh, Co-Chairs
Meigan Aronson &
Allan MacDonald, Co-Vice-Chairs

- Quantum Hall Ferromagnets
- Low Carrier Density Ferromagnets
- Nonequilibrium Phenomena in Correlated Systems
- Disorder and Impurity Effects
- Interacting Mesoscopics
- Mott and Spin Liquid Effects in 3He Films
- Quasiparticles in High Temperature Superconductors
- Novel Superconductors
- Surfaces of Transition Metal Oxides

CORROSION - AQUEOUS
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUL 23-28, 2000
Gerald S. Frankel, Chair
Patrick J. Moran, Vice-Chair

- Composition and Structure of Passive Films
- Mechanical Properties of Passive Films and Depassivation
- Environmental Cracking
- Localized Corrosion
- Corrosion Inhibition
- Lifetime Prediction
- Corrosion in Special Environments
- Organic Coatings

CYCLIC NUCLEOTIDE PHOSPHODIESTERASES
QUEEN'S COLLEGE
OXFORD, UK
SEP 10-15, 2000
Marco Conti &
Miles D. Houslay, Co-Chairs
Theodore Torphy &
Eva Dagerman, Co-Vice-Chairs

- Cyclic Nucleotide Signaling: New Developments
- Expression and Regulation of Known and Newly Discovered PDEs
- Mechanisms of Subcellular Targeting and Regulation of PDEs
- PDE Structure/Function and Drug Interaction
- The Physiology and Pharmacology of PDEs in the CNS and Cardiovascular System
- Therapeutic Applications of PDE Inhibitors: Bench to Bedside
- PDEs and the Regulation of Pulmonary Function and Inflammation
- PDEs and Sensory Transmission

DEVELOPMENTAL PHYSIOLOGY
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUL 2-7, 2000
Kenneth R. Robinson, Chair
Carolyn Larabelle, Vice-Chair

- Intercellular Communication and the Establishment of Left/Right Asymmetry
- Pattern Formation in Complex Systems
- Generation and Maintenance of Cellular Polarity I, II
- Growth Control in Polarity and Development
- Pattern and Polarity Within the Egg
- Emerging Techniques in Developmental Biology
- Signaling in Vertebrate Development
- Clinical Implications of Developmental Biology

DIAMOND SYNTHESIS
SALVE REGINA UNIVERSITY
NEWPORT, RI
JUN 25-30, 2000
Thomas Owano, Chair
Alex Giquel, Vice-Chair

- Doping and Epitaxy
- Modeling and Growth
- Nanocrystalline Diamond
- Electrochemistry
- Defects & Microstructure
- Processing & DMEMS
- Properties
- Diagnostics
- Related Materials

DRUG METABOLISM
HOLDERNESS SCHOOL
PLYMOUTH, NH
JUL 9-14, 2000
Brian Burchell, Chair
Cosette Serabjit-Singh, Vice-Chair

- New Technological Developments for Study of Drug Metabolism
- Hepatocytes, Drug Metabolism and Drug Induction
- Clinically Relevant Pharmacokinetic Drug Interactions
- Drug Transporters in Man
- Active Site Modelling of Enzymes of Drug Metabolism
- Cytochrome P450 Mechanisms
- Cytochrome P450 Active Site

ELECTRODEPOSITION
COLBY-SAWYER COLLEGE
NEW LONDON, NH
AUG 13-18, 2000
John Stickney, Chair
Daniel Schwartz, Vice-Chair

- Cu Electrodeposition in Very Large Scale Integration (VLSI)
- Electrodeposited Magnetic Materials
- Micro Electromechanical Systems (MEMS)
- Semiconductor Electrodeposition
- Surface Characterization of Electrodeposits
- Electrochemical Formation of Nanostructures
- Fundamentals of Electrodeposition

ELECTRON DONOR ACCEPTOR INTERACTIONS
SALVE REGINA UNIVERSITY
NEWPORT, RI
AUG 13-18, 2000
Jan W. Verhoeven, Chair
Ana L. Moore, Thomas A. Moore &
Devens Gust, Co-Vice-Chairs

- Bio (Mimetic) Electron Transfer
- D-Bridge-A Systems and Beyond
- Present and Future of EDA Based Devices
- Nanoscale Observation and Manipulation
- EDA Based Materials
- Theory and Unusual Properties of EDA Systems
- Electron Transfer Chemistry
- Unconventional Methods in the Study of EDA Systems
- DNA, a Pathway Full of Holes

ELECTRONIC PROCESSES IN ORGANIC MATERIALS
SALVE REGINA UNIVERSITY
NEWPORT, RI
JUL 30 - AUG 4, 2000
Dietrich Haarer, Chair
Gerald Small, Vice-Chair

- Quantum Dots and Semiconductors
- Biological Systems
- Spectroscopy, Single Molecules
- 1-Dim Systems; Theory
- Devices; LED, Solar and Org. Transitors
- Nano-Materials, Nanostructures
- Optical Memories, Photorefractive Systems
- Energy Transfer and Relaxation

ENERGETIC MATERIALS
TILTON SCHOOL
TILTON, NH
JUL 2-7, 2000
Richard Behrens, Chair
Thomas Russell, Vice-Chair

- Current Research Issues - Safety & Aging, Combustion, Fast Processes
- Changing States of Energetic Materials - Safety & Aging
- Combustion of Damaged Materials
- Ignition and Hot Spots
- Propellant Combustion - Experimental
- Propellant Combustion - Models
- Synthesis
- Probing Fast Reactions & Detonations
- Theoretical Models & Reaction Dynamics

ENVIRONMENTAL ENDOCRINE DISRUPTORS
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUN 18-23, 2000
Brent D. Palmer, Chair
Ana Soto, Vice-Chair

- The Muddy Water of Complex Mixtures
- Populations as Indicators of Endocrine Disruption
- Novel Targets of EEDs
- Impact of EEDs on Wildlife Diversity
- Nervous System and Behavioral Impacts
- Developmental Effecs: Our Legacy for the Future
- Latest Developments in Mechanisms of Action
- Low-Dose Effects

ENVIRONMENTAL SCIENCES: WATER
HOLDERNESS SCHOOL
PLYMOUTH, NH
JUN 25-30, 2000
Steven J. Eisenreich, Chair
Paul Roberts, Vice-Chair

- Global Climatic Variability and Impacts
- Environmental Biogeochemistry From the Molecular to Ecosystem Scale
- Environmental Aquatic Chemistry in Honor of James J. Morgan
- Modeling Contaminant Fate in Aquatic Systems
- Biological Processes in Natural and Engineered Systems
- Environmental Biogeochemistry of Natural and Pollutant Organic Compounds
- Atmospheric Environmental Partitioning of Organic Compounds
- Chemical and Biological Pressures in Aquatic Environments
- Limits to Growth

ENZYMES, COENZYMES & METABOLIC PATHWAYS
KIMBALL UNION ACADEMY
MERIDEN, NH
JUL 16-21, 2000
Hung-Wen Liu &
Chris P. Whitman, Co-Chairs
Karen S. Anderson &
Ruma Banerjee, Co-Vice-Chairs

- Evolution of Enzymes
- Techniques in Enzymology
- Biosynthesis of Coenzymes
- Metals in Enzymatic Reactions
- Radicals in Enzymatic Reactions
- Enzyme Mechanisms
- Enzymes in Action

FUEL CELLS
ROGER WILLIAMS UNIVERSITY
BRISTOL, RI
JUL 9-14, 2000
Richard J. Bellows, Chair
Robert F. Savinell, Vice-Chair

- Catalysts (Heterogeneous and Electro-): Electronic and Structural Effects in Nano-Crystalline Materials
- Transport vs. Catalytic Effects in Thin Film Electrodes and in Gas Phase Reactors
- New Ion Conducting Materials and Their Use in Electrode Structures
- Mathematical Modeling of Electrodes, Cells and Systems
- Experimental Model Studies for Characterizing Electrode Structures
- Performance Diagnostic Tools (e.g. In Situ Sensors, Impedance Analysis, Conditions Giving Performance Limitations, etc.)
- Activity and Life Issues
- Fuel Reforming Approaches and Related Impurity Mitigation Techniques
- Start-Up and Transient Issues in Fuel Processors
- Advanced Concepts (Specialty Fuels, Novel Designs, Bio-Fuel Cells, etc.)

GLYCOLIPID & SPHINGOLIPID BIOLOGY
IL CIOCCO
BARGA, ITALY
MAY 14 - 19, 2000
Guido Tettamanti, Chair
Alfred H. Merrill, Vice-Chair

- Biotechnological Approaches in Glyco / Sphingo-Lipid Research
- Medical Implications of Glyco / Sphingo-Lipids: Acquired Diseases
- Medical Implications of Glyco / Sphingo-Lipids: Genetic Diseases and Gene-Therapy
- Membrane Domains and Glyco / Sphingo-Lipids: Structural and Functional Aspects I, II
- Glyco / Sphingolipids in Signalling and Regulatory Processes I, II
- Metabolism and Trafficking of Glyco / Sphingo-Lipids
- Structural Biology and Genetics of Glyco / Sphingo-Lipids

GREEN CHEMISTRY
CONNECTICUT COLLEGE
NEW LONDON, CT
JUL 15-20, 2000
Tracy C. Williamson &
Istvan T. Horvath, Co-Chairs
James K. Bashkin &
Adrian P. Kybett, Co-Vice-Chairs

- Catalysis (Homogeneous, Heterogeneous, and Bio-Based)
- Green Synthesis and Processing (Including Bio-Based Synthesis and Processing)
- Green Solvents and Reaction Conditions
- Safer Chemicals and Materials

HEMOSTASIS
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUL 9-14, 2000
Skip Brass, Chair
David Ginsburg, Vice-Chair

- Megakaryocytes: Gene Expression and Platelet Formation
- Platelet Activation: Lighting the Fire
- Cytoskeleton and Secretion
- Integrin Activation
- Hemostatic Mechanisms
- Proteases, etc.
- Slugging it Out at the Vessel Wall
- Hyperactive Hemostasis
- Therapeutic Applications of Hemostasis Research

HETEROCYCLIC COMPOUNDS
SALVE REGINA UNIVERSITY
NEWPORT, RI
JUL 9-14, 2000
Paul Feldman, Chair
Scott Eric Denmark, Vice-Chair

- Discovery and Synthesis of Heterocycle-Based Drugs
- Methodology for the Synthesis of Heterocyclic Compounds
- Complex Heterocyclic Natural Products Synthesis
- Interesting Natural and Unnatural Heterocycles

HIGH PRESSURE, RESEARCH AT
KIMBALL UNION ACADEMY
MERIDEN, NH
JUN 25-30, 2000
Isaac Silvera, Chair
Russell Hemley, Vice-Chair

- New Frontiers in the New Millennium
- Hydrogen Under Static Pressure
- Polyatomics and Shock Pressure
- New Materials
- Earth and Planetary Sciences
- Not So Simple Metals
- Magnetism and Superconductivity
- New Methods and Techniques
- A Half Century of High Pressure Physics

HIGH TEMPERATURE MATERIALS, PROCESSES & DIAGNOSTICS
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUL 23-28, 2000
Nathan S. Jacobson, Chair
Theodore M. Besmann, Vice-Chair

- Solid State Reactions
- Thermodynamics/Structure Correlations for Oxides
- Modeling of Phase/ Thermodynamic Relationships
- Novel High Temperature Methods of Waste Disposal
- Novel High Temperature Synthesis Routes for Ceramics and Composites
- High Temperature Gas/Solid Interactions and Protection Schemes
- High Temperature Device Fabrication
- High Temperature Issues with Fuel Cells
- Experiments in Space

HORMONAL AND NEURAL PEPTIDE BIOSYNTHESIS
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUL 16-21, 2000
Bob Fuller, Chair
Gary Thomas, Vice-Chair

- Genetics and Physiology of Processing
- Biochemistry and Structural Biology of Proprotein and Propeptide Processing Enzymes
- Newly Emerging Processing Enzymes in Physiology and Disease
- Structure and Regulation in Protein Sorting and Localization
- Novel Features of Secretory and Processing Compartments
- Generation and Maturation of Secretory Vesicles and Granules
- New Approaches to Understanding Peptide Diversity
- The Machinery and Regulation of Exocytosis
- Late-Breaking Stories

ILLICIT SUBSTANCE DETECTION
CONNECTICUT COLLEGE
NEW LONDON, CT
JUL 8-13, 2000
Lyle Malotky &
Richard Lacey, Co-Chairs
David R. Franz &
Gregory T.A. Kovacs, Co-Vice-Chairs

- Policy Vision on the Use of Technology
- Trace Explosive Detection
- Canine Detection Research
- Nuclear and X-Ray Detection I, II
- Optical Detection
- Emerging Technologies I, II
- Deployment Policy Issues

IN VIVO MAGNETIC RESONANCE (NEW)
PROCTOR ACADEMY
ANDOVER, NH
AUG 20-25, 2000
Michael B. Smith, Chair
Christopher H. Sotak, Vice-Chair

- Implications and Potential Limits of High Field Magnetic Resonance in Humans
- New Designs for Optimum High Frequency RF Resonators
- Removing or Exploiting Susceptibility for Functional, High Speed, and Micro Imaging
- Functional and Dynamic Spectroscopy In Vivo
- Interpretation of Diffusion Measurement in Biological Tissues
- Emerging Techniques in Magnetic Resonance
- High Speed Imaging (Non-Fourier Imaging Approaches)
- Mechanisms of Functional MRI
- Functional Genomics in the Mouse Using NMR

INDUSTRIAL ECOLOGY: ENGINEERING GLOBAL SYSTEMS
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUN 11-16, 2000
Brad Allenby, Chair
Cathy Koshland, Vice-Chair

- Earth Systems Engineering: Grand Cycles and Ethics
- Engineering the Carbon Cycle:
  I) Fossil Fuels
  II) Biomass and Energy Efficiency
- Industrial Ecology Tools and Methods in New Applications: Agriculture and Forestry
- Industrial Ecology Tools and Methods in New Applications: Fisheries and Pharming
- The Industrial Ecology of Electronics Products
- The Functionality Economy and Life Cycle Assessments
- Industrial Ecology Innovative Studies
- Modeling Industrial Ecology Systems as Food Webs

INORGANIC CHEMISTRY
SALVE REGINA UNIVERSITY
NEWPORT, RI
JUL 23-28, 2000
Nadine de Vries, Chair
Steve Strauss, Vice Chair

- Magnetism and Electron Transfer
- Organometallic Chemistry
- Coordination Chemistry and Metal-Metal Bonds
- Metals in Medicine
- Clusters and Nanoclusters
- Catalysis
- Materials and Surfaces
- Main-Group Chemistry

INTERFACES, CHEMISTRY AT
KIMBALL UNION ACADEMY
MERIDEN, NH
JUL 2-7, 2000
Leonid A. Turkevich, Chair
Dennis C. Prieve, Vice-Chair

- Reactions at Surfaces:
  I) Surface Modification
  II) Catalysis
  III) Templating
- Hard Interfaces: Nanoparticles
- Soft Interfaces: Amphiphilic Systems
- Photochemistry at Interfaces
- Biochemistry at Interfaces
- Combinatorial Methods Applied to Interaces

INTERMEDIATE FILAMENTS
QUEEN'S COLLEGE
OXFORD, UK
JUL 30 - AUG 4, 2000
Birgit Lane, Chair
Ueli Aebi, Vice-Chair

- Intermediate Filament Expression in Growth and Development
- Intermediate Filaments in Disease
- Intermediate Filaments and the Stress Response
- Nuclear Intermediate Filaments
- Turnover and Remodelling of the Filament Cytoskeleton
- Molecular Shape and Filament Protein Properties
- Filament Networking Proteins
- Motors, Movement and Intermediate Filaments
- Diversity and Function

ION CHANNELS
TILTON SCHOOL
TILTON, NH
JUL 9-14, 2000
David C. Gadsby, Chair
Steven A. Siegelbaum, Vice-Chair

- Cl Channels ("The Poor/Pore Cousins"?)
- Pore Properties
- Permeation Models
- Mechanisms of Gating
- Ligand Gated Channels
- Channel Regulatory Proteins
- Channel Assembly & Trafficking
- Channels in Disease

LASER INTERACTIONS WITH MATERIALS
PROCTOR ACADEMY
ANDOVER, NH
JUN 11-16, 2000
David B. Geohegan, Chair
James S. Horwitz, Vice-Chair

- Fundamentals of Laser Ablation
- Pulsed Laser Deposition and Direct-Writing of Thin Films
- Characterization and Applications of Laser Plasmas
- Laser Induced Desorption and Surface Modification
- Ultrafast Laser Interactions with Surfaces
- Laser Synthesis of Nanomaterials
- Photonic Band Gap Structures
- New Laser Sources and Applications
- Laser Microfabrication and Micromachining

LASERS IN MEDICINE & BIOLOGY
CONNECTICUT COLLEGE
NEW LONDON, CT
JUN 10-15, 2000
J. Stuart Nelson &
Stefan Andersson-Engels, Co-Chairs
Rebecca Richards-Kartum &
Raimund Hibst, Co-Vice-Chairs

- Animation and Video Sequences of Laser Interactions with Biological Tissues
- Recent Developments in Photodynamic Therapy
- Biomedical Optics and Laser Treatment of Human Skin
- High Resolution Functional Imaging in Cells and Tissues: New Methods and Contrast Mechanisms
- Optical Coherence Tomography and Speckle Interferometry
- Optical Based Molecular Assays
- Inverse Problems and Statistical Methods in Optical Biology
- Imaging and Spectroscopy of Deep Tissue with Diffuse Light
- 35 Years of Research and Development and 20 Gordon Research Conferences on Lasers in Medicine and Biology: What Can We Learn from the Past and What Do We Expect for the Future?

LIGHT EMISSION FROM SOLIDS (NEW)
QUEEN'S COLLEGE
OXFORD, UK
JUL 9-14, 2000
Aron Vecht, Chair
Jack Silver, Vice-Chair

- Fundamental Mechanisms of Luminescence I, II
- Vacuum Electron-Excited Materials and Structures
- Electroluminescence - High Field
- Electroluminescence - Low Field
- Organic Light Emitting Materials and Structures
- Luminescent Structures and Synthesis
- Luminescence in Narrow Band Materials
- Surface Studies

LIPOPROTEIN METABOLISM
KIMBALL UNION ACADEMY
MERIDEN, NH
JUL 30 - AUG 4, 2000
Henry Ginsberg, Chair
Michael Phillips, Vice-Chair

- Regulation of HDL Metabolism
- Apolipoprotein Structure and Function
- Regulation of Lipoprotein Metabolism
- Genetics of Dyslipidemia
- Transcriptional Regulation of Lipid Metabolism
- Assembly and Secretion of Apolipoprotein B-Lipoproteins
- Intracellular Lipid Metabolism
- Fatty Acid Transport and Utilization in Insulin Resistance and Atherosclerosis

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LYSOSOMES
PROCTOR ACADEMY
ANDOVER, NH
JUN 25-30, 2000
Juan S. Bonifacino, Chair
Scott D. Emr, Vice-Chair

- The Structure of the Endocytic Machinery
- Mechanisms of Endocytosis
- Transport and Sorting in the Endocytic Pathway
- Vesicle Budding and Fusion
- Protein Sorting at the Trans-Golgi Network
- Lysosome Function and Dynamics
- The Yeast Vacuole
- Disorders of Lysosome Biogenesis and Function
- The Alex Novikoff Lecture
- Current Trends in Lysosome Research: An Open Forum Discussion

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MACROMOLECULAR ORGANIZATION & CELL FUNCTION
QUEEN'S COLLEGE
OXFORD, UK
AUG 6-11, 2000
Natalie S. Cohen &
Hans V. Westerhoff, Co-Chairs
Brenda W. Shirley &
Kevin M. Brindle, Co-Vice-Chairs

- Cytoskeletal Elements and Their Dynamics
- Intracellular Environment
- New Implications of Classical Compartmentation
- Scaffolding Proteins; Spatial and Temporal Aspects of Signal Transduction
- Methods to Understand the Functioning Living Cell
- Organization of Gene Expression
- Protein Translation, Folding and Degradation
- Channeling in Metabolic Pathways
- Functional Genomics, Proteomics

MAMMALIAN GAMETOGENESIS & EMBRYOGENESIS
CONNECTICUT COLLEGE
NEW LONDON, CT
JUL 1-6, 2000
Gerald M. Kidder, Chair
Patricia A. Hunt, Vice-Chair

- Intercellular Signalling I, II
- Cell Commitment
- Stem Cells
- Epigenetics
- Metabolic Regulation
- Reproductive Genetics
- Reproductive Technology

MAMMARY GLAND BIOLOGY
IL CIOCCO
BARGA, ITALY
MAY 21 - 26, 2000
Nancy E. Hynes &
Charles H. Streuli, Co-Chairs

- Steroids / Growth Factors / Proliferation
- Transcription Factors
- Repair / BRCA I, II
- Immortality / Stem Cells
- Apoptosis
- WNT / Catenins
- Patterning / Morphogenesis
- Metastasis

MATERIALS EDUCATION
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUL 30 - AUG 2, 2000
Marc De Graef, Chair
Kevin Trumble, Vice-Chair

- Student Learning Styles and Portfolios
- ABET 2000, First Experiences
- Missions and Goals of Materials Education
- Core Materials:
  What is the Bare Minimum?
  I) (Academic Viewpoint)
  II) (Industrial Viewpoint)
- Curriculum Reform: How?

MECHANISMS OF TOXICITY
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUL 23-28, 2000
James L. Stevens, Chair
Ronald Hines, Vice-Chair

- Developmental Toxicology
- Oxidative Damage and Mitochondrial Injury – DNA Repair
- Molecular Regulation of Apoptosis
- Cell Cycle Control and Genome Integrity
- Application of Genomics and Proteomics to Toxicology
- Genetic Susceptibility – Genetic Polymorphisms
- Molecular Regulation of Inflammation and Fibrosis
- Transcriptional Control – Receptor Mediated Toxicity

MEDICINAL CHEMISTRY
COLBY-SAWYER COLLEGE
NEW LONDON, NH
AUG 6-11, 2000
Graham Johnson, Chair
Kelvin Cooper, Vice-Chair

- Aging: The Failing Structural Elements
- Aging: Sensory Loss
- Angiogenesis Inhibitors as Anti-Cancer Agents
- Can We Really Predict Human Pharmacokinetics?
- Antiviral Therapy: New Approaches in the Hot Zone
- Small Molecule Ligands for G-Protein Coupled Receptors
- Advances in Psychotherapeutics
- Special Topics

MEIOSIS
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUN 18-23, 2000
Michael Lichten, Chair
Anne Villeneuve, Vice-Chair

- Regulation of Gene Expression in Meiosis and Gametogenesis
- DNA Replication and Initation of Meiotic Recombination
- Recombination Enzymes and Complexes
- Recombination Mechanisms
- Presynaptic Chromosome Movement and Association
- Meiotic Chromosome Structure and Homolog Synapsis
- Meiotic Chromosome Condensation and Cohesion
- Centromeres, Kinetochores and Chromosome Segregation
- Control of Progression Through Meiosis

MEMBRANE TRANSPORT PROTEINS
CONNECTICUT COLLEGE
NEW LONDON, CT
JUL 22-27, 2000
Michael P. Kavanaugh, Chair
Nancy Carrasco, Vice-Chair

- Neurotransmitter Transporter Structure and Function
- Neurotransmitter Uptake in Health and Disease
- Glucose Transporter Regulation and Physiological Roles
- Amino Acid Transport: Emerging Molecular Pictures
- Ion-Motive ATPases
- Inorganic and Organic Ion Transporters
- Nucleoside Transporter Structure and Function
- Ion Channels: Advances in Molecular Pathology
- Advances in Structural Determination of Membrane Transport Proteins

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MEMBRANES: MATERIALS & PROCESSES
CONNECTICUT COLLEGE
NEW LONDON, CT
JUL 29 - AUG 3, 2000
Richard D. Noble, Chair
Paul Bryan, Vice-Chair

- Fundamentals
- Measurement Methods
- Molecular Sieve Membranes
- Inorganic Membranes
- Applications
- Modifications
- Novel Membranes
- Biomedical

MICROBIAL STRESS RESPONSE
SALVE REGINA UNIVERSITY
NEWPORT, RI
JUL 16-21, 2000
Thomas V. O'Halloran, Chair
Amy Cheng-Vollmer, Vice-Chair

- Analyzing Stress at the Genomic Level
- Expression Profile Microarrays: Patterns of Stress Induced Genes
- Nutrient Stress: "Can't Live with it, Can Live Without it"
- Stress Responsive Signaling Pathways
- Structure, Function and Control of Transcriptional Machinery
- Parallels Between Fungal and Prokaryotic Stress Responses
- Inducible Virulence Factors at the Molecular Level
- Responding to Changes in the Physical Environment: Heat, Cold, Radiation
- Paradigms in Stress Response

MICROBIAL TOXINS & PATHOGENICITY
PROCTOR ACADEMY
ANDOVER, NH
JUL 16-21, 2000
James Kaper, Chair
William Goldman, Vice-Chair

- New Toxins/New Insights
- DNA Arrays & Genomics
- Modulation of Host Cell Receptor Expression
- Regulation
- Innate Immunity
- Novel Animal/Cell Models of Infection
- Translocation of Virulence Factors
- Host-Pathogen Interactions

MITOCHONDRIA & CHLOROPLASTS
CONNECTICUT COLLEGE
NEW LONDON, CT
JUN 24-29, 2000
David B. Stern, Chair
Eric A. Shoubridge, Vice-Chair

- Organelle Evolutionary Biology
- Morphology and Inheritance
- DNA and RNA Synthesis
- Signal Transduction
- Post-Transcriptional Mechanisms
- Protein Import and Assembly
- Mitochondrial Diseases, Animal Models and Apoptosis
- Metal Ions in Organelle Metabolism

MODELING OF FLOW IN PERMEABLE MEDIA
PROCTOR ACADEMY
ANDOVER, NH
AUG 6-11, 2000
Linda M. Abriola, Chair
Kishore Mohanty, Vice-Chair

- Subsurface Characterization: Measurement
- Subsurface Characterization: Information Integration
- Parallel Architectures and Numerical Simulation
- Flow in Texturally Rich Permeability Fields
- Subsurface Process Coupling
- Wettability Phenomena
- Innovative Remediation Technologies
- Pore Scale Processes and Imaging
- Microbial Growth and Transport

MOLECULAR & CELLULAR NEUROBIOLOGY
HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY
HONG KONG, CHINA
JUN 4-9, 2000
Yi Rao, Chair
Nancy Y. Ip, Vice-Chair

- Neural Patterning and Differentiation
- Axon Guidance
- Neuronal Migration
- Trophic Factors and Cell Death
- Sensory Processing
- Neural Plasticity
- Ion Channels
- Neural Signaling and Transmission
- Neurobiology of Diseases

MOLECULAR BASIS OF MICROBIAL ONE-CARBON METABOLISM
CONNECTICUT COLLEGE
NEW LONDON, CT
JUL 8-13, 2000
Dan Arp, Chair
Colin Murrell, Vice-Chair

- Molecular Physiology and Biochemistry of Methanogens and Methylotrophs: Common Themes
- Enzyme Structure and Function with a Focus on Nickel

- Molecular Regulation and Genetics: Use of Methane, Methyl Compounds and H2
- One-Carbon Metabolism in Natural Systems
- Enzyme Structure and Function: Transformations of Methane and Methyl Compounds
- Molecular Regulation and Genetics: CO2 Assimilation and Other Fates of Oxidized Carbon
- Molecular Physiology and Biochemistry: Many Ways to Make a Living
- Genomics and Evolution of Bacteria that Utilize One-Carbon Compounds
- Basic Studies with Applied Ramifications

MOLECULAR BIOLOGY, DIFFRACTION METHODS IN
PROCTOR ACADEMY
ANDOVER, NH
JUL 2-7, 2000
Andrew Howard, Chair
Michael Chapman, Vice-Chair

- High-Throughput Crystallization
- Anomalous Data Collection: MAD and SIRAS
- Sample Decay
- Automation of Phasing and Model-Building
- Innovations in Structure Refinement
- Deriving Function from Structure
- Structural Genomics
- Diffraction from Noncrystalline Systems
- Convergent Techniques in Biophysics

MOLECULAR CYTOGENETICS
QUEEN'S COLLEGE
OXFORD, UK
JUL 23-28, 2000
Daniel Pinkel &
Barbara Trask, Co-Chairs
Malcolm Ferguson-Smith &
Peter Pearson, Co-Vice-Chairs

- New Technologies
- Genome Evolution and Population Genetics
- Mechanisms of Somatic and Constitutional Alterations
- Chromosome Dynamics in Mitosis and Meiosis
- Interphase Chromosome Geometry and Gene Expression
- Linking Chromosome Rearrangements to Disease
- Molecular Cytogenetic Analysis of Cancer
- Cytogenetics of Plants and Other Organisms
- DNA Microarrays

MOLECULAR ELECTRONIC SPECTROSCOPY
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUL 30 - AUG 4, 2000
Robert W. Field, Chair
Elliot R. Bernstein &
James L. Skinner, Co-Vice-Chairs

- Herzberg Session
- From Atom-In-Molecule to Supercritical Fluids
- Bose-Einstein Condensates, ^{4}He Droplets, and H_2 Matrices
- Imaging of Nuclear and Electronic Wavefunctions
- Control of Nuclear and Electronic Dynamics
- Quantum Dots and Nanotubes
- A Little of This and A Little of That
- Light Harvesting Antenna Systems
- Time vs. Frequency Domain

MOLECULAR GENETICS
CONNECTICUT COLLEGE
NEW LONDON, CT
JUL 22-27, 2000
Robert Kingston, Chair
Stephen Bell, Vice-Chair

- Chromosome Dynamics
- Genetic/Broad Scale Approaches to Regulation
- Cell Cycle Control
- DNA Replication
- Transcriptional Regulation - Activation/GTF Interactions
- Transcriptional Regulation - Chromatin Remodeling/ Modification
- Structure/Enzymology
- Splicing/RNA Function
- Recombination and Repair

MULTIPHOTON PROCESSES
TILTON SCHOOL
TILTON, NH
JUN 18-23, 2000
John Hepburn, Chair
Lou DiMauro, Vice-Chair

- Molecular Alignment and Orientation: Strong Field and Brute Force
- Photodissociation Dynamics
- Coherent X-rays: High Harmonics and Free Electron Lasers
- Wavepacket Dynamics and Adaptive Control
- Collective Effects
- Multiphoton Excitation of Large Molecules and Clusters
- Non-Linear Atomic Optics

MUSCLE: EXCITATION/ CONTRACTION COUPLING
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUN 11-16, 2000
David H. MacLennan, Chair
Martin Schneider, Vice-Chair

- Molecular Structure of E-C Coupling Components
- Genetic Disease Resulting From Defects in E-C Coupling Proteins
- Structure-Function Analysis of Ryanodine Receptors
- Interactions Between Ryanodine Receptors and a1-Dihydropyridine Receptors
- Modulation of Ryanodine Receptor Function by Accessory Proteins and by Protein Modification
- Modulation of Ryanodine Receptor Function by Transmembrane Gradients and Pharmacological Agents
- Elementary Events of Ca2+ Release
- Physiological Ca2+ Release and Reuptake
- Ryr3, Ip3r and Other E/C Coupling Proteins in Striated Muscle

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MUTAGENESIS
QUEEN'S COLLEGE
OXFORD, UK
AUG 20-25, 2000
Josef Jiricny, Chair
Myron Goodman, Vice-Chair

- Nucleotide Excision Repair
- Base Excision Repair
- Structure, Function and Fidelity of DNA Polymerases
- Mismatch Repair
- Genomic Instability
- Double-Strand Break Repair and Recombination
- Novel DNA Polymerases in Lesion By-Pass
- Cross-Talk Between Diverse Pathways of DNA Metabolism
- Mutagenesis in Evolution and Cancer

MYELIN
IL CIOCCO
BARGA, ITALY
MAY 7 - 12, 2000
Steven Pfeiffer & Klaus Nave, Co-Chairs
Marie T. Filbin, Vice-Chair

- Glial Cell Fate Determination
- Neural Stem Cells
- Progenitor Migration
- Cell Cycle-Differentiation Interface
- Growth Factors, Signal Transduction and Transcription Factors
- Myelin Protein and Lipid Trafficking
- Structural Biology of Myelin Proteins
- Glycoconjugates
- Axon-Glia Interactions
- Demyelinating Disease

NANOSTRUCTURE FABRICATION
TILTON SCHOOL
TILTON, NH
JUL 23-28, 2000
Christie Marrian, Chair
Dieter Kern, Vice-Chair

- Low Dimensional Structure
- Nano/Biotechnology
- Limits in Lithography
- Magnetic Media and Nanostructures
- Microcontact Printing
- Nano and Molecular Electronics
- Nanomechanical Systems
- Biologically Inspired Nanofabrication
- Nanostructure Based Quantum Computation

NATURAL PRODUCTS
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUL 30 - AUG 4, 2000
Rob Webb, Chair
Cynthia McClure, Vice-Chair

- Isolation/Biosynthesis/Mechanistic Studies
- Bioorganic Chemistry
- New Analytical Techniques
- Total Synthesis
- Medicinal Chemistry
- Methodology

NEURAL DEVELOPMENT
SALVE REGINA UNIVERSITY
NEWPORT, RI
JUL 2-7, 2000
David J. Anderson, Chair
Larry Zipursky, Vice-Chair

- Activity Vs. Specificity in Connectivity
- What Cells Are the Stem Cells in the Adult Brain
- Control of the Neuron/Glia Fate Decision
- Expression and Function of Cadherins in Connectivity
- Neuronal Polarity
- Axon Guidance
- Transcriptional "Codes" in Neuronal Identity
- Development of Sensory Systems
- Late Breaking Developments

NEURONAL CHOLECYSTOKININ (NEW)
QUEEN'S COLLEGE
OXFORD, UK
AUG 13-18, 2000
Margery C. Beinfeld &
Valerie Daugé, Co-Chairs

- CCK Evolution, Anatomy and Biosynthesis
- Regulation of CCK Expression, CCK Receptors and Intracellular Signaling
- CCK Agonists and Antagonists
- CCK-Glutamate Interactions, Regulation of CCK Release, Morphology and Physiology of CCK Interneurons in Cerebral Cortex, CCK Electrophysiology
- CCK Peptide Knockout Mice, Interaction of CCK with 5HT and Dopamine
- CCK in Satiety
- CCK in Learning and Memory
- CCK in Anxiety
- CCK in Analgesia/Sexual Behavior

NEW FRONTIERS IN SCIENCE AND TECHNOLOGY POLICY
HOLDERNESS SCHOOL
PLYMOUTH, NH
AUG 20-25, 2000
Wil Lepkowski, Daryl Chubin &
Martin Apple, Co-Chairs

- Defining the Political and Policy Frontiers. Conference Themes
- Science, Technology and the Clash of Values

- The Budget and Beyond. Funding Trends and the Issues Behind Them
- How Data, Information, and Misinformation Drive Policy. New Needs
- The Changing Research University
- Science and Math Education: K Through Undergraduate Years
- Innovation and the Reservoir of Ideas
- International Dimensions
- The New Social Contract for Science and Technology
- Policy Trajectories and Alternatives. A Directed Exercise in Future Alternatives Involving the Entire Conference

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NITROGEN FIXATION
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUL 2-7, 2000
Lance Seefeldt, Chair
Paul Ludden, Vice-Chair

- Nitrogenase Mechanism: Chemical Aspects
- Iron-Molybdenum Cofactor Models and Reactivity
- Nitrogenase Substrates and Ligands
- Biosynthesis of Iron Molybdenum Cofactor
- Role of Nucleotides in the Nitrogenase Mechanism
- Biosynthesis of Iron-Sulfur Clusters
- Regulation of Nitrogenase

NUCLEAR CHEMISTRY
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUN 18-23, 2000
William Lynch, Chair
Mark Riley, Vice-Chair

- Fusion, Fission and the Production of Exotic Nuclides
- Collective Flow and the Equation of State of Strongly Interacting Matter
- Equilibration and Transport Phenomena
- Nuclear Reactions at the Extremes of Isospin Asymmetry
- Multifragmentation and the Nuclear Liquid-Gas Phase Transition
- Particle Production
- Particle-Particle Correlations
- The Search for the Quark-Gluon Plasma

NUCLEAR WASTE & ENERGY
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUL 16-21, 2000
Kenneth L. Mossman &
Jordi Bruno, Co-Chairs
Greg Choppin, Vice-Chair

- Health Effects-Molecular and Cell Studies
- Partitioning and Transmutation Techniques
- Radionuclide Transport
- Young Scientists Session
- Advanced Nuclear Fuel Cycle
- Health Effects-Organismic and Population Studies
- Risk Communication and Perception
- Radionuclide Mobility and Fate

NUCLEIC ACIDS
SALVE REGINA UNIVERSITY
NEWPORT, RI
JUN 25-30, 2000
Marlene Belfort &
Alan Sachs, Co-Chairs
Sarah Woodson &
Paul J. Hagerman, Co-Vice-Chairs

- Replication
- DNA Rearrangements
- Genomics and Bioinformatics
- RNA Structure and Function
- Transcription and Modification
- RNA Processing/Transport
- Translation
- Retroelements and Telomeres
- Macromolecular Assemblies

ORGANIC GEOCHEMISTRY
HOLDERNESS SCHOOL
PLYMOUTH, NH
AUG 13-18, 2000
John Hedges, Chair
Mark McCaffrey, Vice-Chair

- What Our Non-Organic Colleagues Wish We Could Tell Them
- Relationship Between Petroleum Engineering and Geochemistry
- Compound-Specific Isotopic Analysis of Non-Carbon Elements
- Depositional Settings for Petroleum Source Rocks
- Organic Geochemistry at the Micron Scale
- Biodegradation of Petroleum and Organic Matter in Sediments
- Applications of Molecular Biological Tools to Biogeochemistry
- Organic/Inorganic Interactions in Soils, Sediments and Rocks
- Key Challenges for the New Millennium

ORGANIC REACTIONS & PROCESSES
ROGER WILLIAMS UNIVERSITY
BRISTOL, RI
JUL 16-21, 2000
Michael Harmata, Chair
Michael F. Lipton, Vice-Chair

- Advances in the Synthesis of Complex Molecules
- Small Ring Chemistry, Organometallics in Synthesis
- New Annulation Chemistry
- Tandem Reactions
- Heterocycle Synthesis
- Lewis Acids in Organic Synthesis
- Catalysis of Organic Reactions
- Pharmaceutical Process Development

ORGANIC STRUCTURES & PROPERTIES
CONNECTICUT COLLEGE
NEW LONDON, CT
JUN 17-22, 2000
Michael D. Ward &
Mike Zaworotko, Co-Chairs
Yoshinori Naruta, Vice-Chair

- Organic Assemblies for Optoelectronics and Ferroelectrics
- Functional Organic Molecules at Interfaces
- Crystal Design and Solid State Reactivity
- Organic Solids and Electron Transport
- Crystallization, Polymorphism and Properties of Organic Crystals
- Functional Organic Thin Films
- Biomolecular Assemblies
- Young Investigators Session
- Synthesis of Supramolecular Networks

ORGANOMETALLIC CHEMISTRY
SALVE REGINA UNIVERSITY
NEWPORT, RI
JUL 30 - AUG 4, 2000
William D. Jones, Chair
Carol J. Burns, Vice-Chair

- Bond Activation
- Catalysis
- Chemistry in Asymmetric Environments
- Early Transition Metal and Actinide Chemistry
- New Approaches in Organic Synthesis
- Novel Materials and Ligands
- Organometallic Mechanisms
- Polymerization Catalysis

ORIGIN OF LIFE
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUL 9-14, 2000
Antonio Lazcano, Chair
Kenneth Nealson, Vice-Chair

- The Origin and Evolution of Archean Life
- Environmental Evolution on the Early Earth
- Prebiotic Chemistry
- The RNA World
- The Last Common Ancestor and the Tree of Life
- Horizontal Gene Transfer
- Origin and Evolution of Metabolism
- The Cosmic Search for Life

OSCILLATIONS & DYNAMIC INSTABILITIES IN CHEMICAL SYSTEMS
ROGER WILLIAMS UNIVERSITY
BRISTOL, RI
AUG 20-25, 2000
Stephen K. Scott, Chair
Stefan C. Müller, Vice-Chair

- Oscillatory Reactions/Nonlinear Kinetics
- Atmospheric Dynamics
- Waves and Patterns
- Periodically Forced Spatial Systems
- Short Talks I, II
- Combustion & Fire
- Complex Systems
- Biological Systems

PEPTIDE GROWTH FACTORS
KIMBALL UNION ACADEMY
MERIDEN, NH
AUG 13-18, 2000
Carl-Henrik Heldin, Chair
Roger J. Davis, Vice-Chair

- Tyrosine Kinase Receptor Signaling
- Tyrosine Kinases in Cell Growth and Motility
- Apoptotic Signaling
- Intracellular Signaling
- Angiogenic Factors
- TGF-ß Family Members
- Cytokine Receptor Signaling
- Growth Factors in Development
- Hedgehog and Wt

PERIODONTAL DISEASES
QUEEN'S COLLEGE
OXFORD, UK
JUL 16-21, 2000
Harvey A. Schenkein &
Steven Offenbacher, Co-Chairs

- Microbial Genomics and Periodontal Diseases
- Virulence Characteristics of Oral Microorganisms
- Genetic Aspects of Periodontal Diseases
- Host Response-Inflammation and Immunity
- Host Response-Antigen-Presenting Cells
- Emerging Infections: Old Pathogens-New Diseases
- Biological Basis of Regeneration
- Clinical Trials of Regeneration

PHOTONUCLEAR REACTIONS
TILTON SCHOOL
TILTON, NH
JUL 30 - AUG 4, 2000
C.W. De Jager &
Annalisa D'Angelo, Co-Chairs
Louis E. Wright, Vice-Chair

- Structure of Nucleons
- Nucleon Resonances
- Nucleon Form Factors
- Electromagnetic Sumrules
- Real and Virtual Compton Scattering
- Few- and Many-Body Aspects of Nuclei
- Meson Production
- Theory of Nucleons and Nuclei
- Overview of Aspects of Nuclear Physics

PHOTOSENSORY RECEPTORS & SIGNAL TRANSDUCTION*
IL CIOCCO
BARGA, ITALY
APR 30 - MAY 5, 2000
John Spudich &
Winslow Briggs, Co-Chairs

- Phototransduction: Insights From 3D Atomic Structure & Dynamics
- Rhodopsin Signaling I: Archaeal Sensory Rhodopsins
- Rhodopsin Signaling II: Mammalian Visual Pigments
- Photosensory Receptors in Eukaryotic Microbes
- Cryptochromes
- Phototropin (NPH1)
- Phytochromes in Higher Plants
- Phytochromes in Lower Plants and Cyanobacteria
- Photoactive Yellow Proteins (PYPs) & PAS Domains

*GRC Sponsored Meeting

PHOTOSYNTHESIS
KIMBALL UNION ACADEMY
MERIDEN, NH
JUN 18-23, 2000
Gary Brudvig, Chair
Donald Bryant, Vice-Chair

- Structures of Photosynthetic Protein Complexes
- Energy Transfer Processes in Antenna Complexes
- Mechanism of Biological Electron Transfer
- Proton-Coupled Electron Transfer
- Primary Processes in Photosynthetic Reaction Centers
- Proton Pumping and Secondary Electron Transfer Reactions
- Photosystems I and II
- Oxygen Evolution
- Young Investigator Talks and Outside Perspective Lecture

PHYSICAL METALLURGY
HOLDERNESS SCHOOL
PLYMOUTH, NH
JUL 23-28, 2000
Rusty Gray &
John J. Lewandowski, Co-Chairs
James Howe &
David Srolovitz, Co-Vice-Chairs

- Roles of Modeling, Simulation, and Verification in Materials Processing and Performance
- Key Issues in Processing and Performance:
  I) Solidification/Casting
  II) Solid State
- Fundamental Issues in Nucleation and Phase Stability
- Fundamental Issues in Microstructure Evolution and Development I, II
- Atomistics to Meso Scale Modeling/Simulation
- Application of Solidification / Modeling to Processes
- Funding Science Inside the Beltway

PHYSICS RESEARCH AND EDUCATION: STATISTICAL AND THERMAL PHYSICS (NEW)
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUN 11-16, 2000
Jan Tobochnik &
Harvey Gould, Co-Chairs
Beth Ann Thacker, Vice-Chair

- Student Conceptual Difficulties in Thermodynamics
- Statistical and Thermal Physics in the Introductory Course
- Probability and Statistical Physics
- Effective Teaching Strategies
- Research of Interest in Undergraduate Statistical and Thermal Physics Courses I, II
- Computational Statistical Mechanics
- Teaching of Statistical and Thermal Physics in Chemistry
- Topics in Statistical and Thermal Physics

PINEAL CELL BIOLOGY
QUEEN'S COLLEGE
OXFORD, UK
AUG 27 - SEP 1, 2000
Jo Arendt, Chair
Carla B. Green, Vice-Chair

- Pineal Molecular Machinery
- Phototransduction Mechanisms
- Melatonin Targets
- Photoperiodic Readout
- Circadian Entrainment
- Clock Mechanisms
- Melatonin, Sleep and Body Temperature
- Clinical Aspects of Melatonin, its Agonists and Antagonists
- Pineal Controversies: Debate-Does the Pineal Have an Essential Role or Indeed a Role in the Mammalian Circadian System?

PLANT & FUNGAL CYTOSKELETON
PROCTOR ACADEMY
ANDOVER, NH
AUG 13-18, 2000
Zac Cande, Chair
Liza Pon, Vice-Chair

- Actin Organization and Dynamics
- Motility
- Microtubule Organization and Dynamics
- MTOCs
- Morphogenesis, Cytoskeleton and Signaling
- Cell Polarity and Signaling
- Mitosis
- Cytokinesis
- Division Plane Determination

PLANT CELL WALLS
KIMBALL UNION ACADEMY
MERIDEN, NH
AUG 20-25, 2000
Deborah Delmer, Chair
Dan Cosgrove, Vice-Chair

- New Developments in Cell Wall Structure
- New Developments in Cell Wall Biosynthesis
- Cell Wall Mutants
- Cell Walls and Development
- Structure of Glycosyltransferases/ Glycosylhydrolases
- The Walls of Wood
- Wall Assembly and Higher Order Organization
- Cell Walls in the Era of Genomics
- Plenary Lecture on Hyaluronan Synthases

PLANT MOLECULAR BIOLOGY
HOLDERNESS SCHOOL
PLYMOUTH, NH
JUL 16-21, 2000
Robert L. Last, Chair
Barbara J. Baker, Vice-Chair

- Gene Silencing
- Signal Transduction
- Cell Death
- Plant-Microbe Interactions
- The Metabolic Framework of Plant Growth and Defense
- Abiotic Stress Adaptation
- Development From Cell to Seed
- Genomics

PLANT SENESCENCE, ABSCISSION AND PROGRAMMED CELL DEATH
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUL 16-21, 2000
Anthony B. Bleecker, Chair

- Developmental Programmed Cell Death
- Stress-Induced Programmed Cell Death
- Cell Biology, Biochemistry, and Physiology of Senescence
- Molecular Biology and Genetics of Senescence
- Abscission and Dehiscence
- Hormonal Control Systems
- Meristem Fate
- Genomic Approaches and Other Hot Topics

PLASMA PROCESSING SCIENCE
TILTON SCHOOL
TILTON, NH
AUG 13-18, 2000
David B. Graves, Chair
Javad Mostaghimi, Vice-Chair

- Elevated Pressure Glow Discharges
- Environmental Engineering Using Plasma Processes
- Plasma-Surface Interactions: From Atoms to Microfeatures
- Radical-Surface Chemistry
- Pulsed Plasmas and Plasma Stability
- Novel Plasma Surface Treatments
- Plasma-Deposited Super-Hard Materials
- Recent Advances in Plasma Modeling and Simulation
- Plasma Diagnostics

POINT & LINE DEFECTS IN SEMICONDUCTORS
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUL 9-14, 2000
Tom Kennedy, Chair
Stefan Estreicher, Vice-Chair

- Defects in ZnO
- Diffusion and Processing in Si
- Defects Involving Interfaces
- Defects in GaN and ZnSe
- Defects in Devices
- Atomic and Molecular H
- Transition Metals
- Extended Defects
- Defects for Quantum Computing

POLYMER PHYSICS
CONNECTICUT COLLEGE
NEW LONDON, CT
JUL 29 - AUG 3, 2000
Tim Lodge, Chair
Murugappan Muthukumar, Vice-Chair

- Dynamics of Block Copolymers
- Polymer-Particle and Gel Systems
- Stages in Crystallization
- Recognition and Folding
- Theory and Simulation of Polymer Liquids
- Dynamic Heterogeneity in Mixtures and Glasses
- Self-Assembly and Phase Transitions
- New Experimental Techniques
- Membranes and Biopolymer Dynamics

POLYMERS (EAST)
CONNECTICUT COLLEGE
NEW LONDON, CT
JUN 10-15, 2000
Mark Green, Chair
Martin Moeller, Vice-Chair

- Biologically Related Polymer Science
- Environmental Considerations in Polymer Science
- Synthetic Polymer Science
- Polymers with a Function
- Polymer Organization
- The Polymeric Solid State
- Helical Arrangements of Polymers
- Science Fiction in Polymers
- And a Special Feature: Stories from the 20th Century

PROTEOGLYCANS
PROCTOR ACADEMY
ANDOVER, NH
JUL 9-14, 2000
Renato V. Iozzo, Chair
Arthur D. Lander, Vice-Chair

- Emerging Model Systems in Proteoglycan Research
- Proteoglycan Biosynthesis and Assembly
- Heparin and Heparan Sulfate in Cell Biology and Development
- The Biology of Hyaluronan and Its Receptors
- Protein-Glycosaminoglycan Interactions
- The Biology of Small Leucine-Rich Proteoglycans
- Proteoglycan-Growth Factor Interactions and Signaling
- Proteoglycans in Disease States
- Microbial Interactions and Therapeutics

PROTEOLYTIC ENZYMES & THEIR INHIBITORS
COLBY-SAWYER COLLEGE
NEW LONDON, NH
JUL 9-14, 2000
Wolfram Bode, Chair
James McKerrow, Vice-Chair

- Proteinases in Viral Diseases
- Proteinases and Uncontrolled Pathogenesis
- Proteinases and Inhibitors in Haemostasis
- Proteinases in Apoptosis and Signal Transduction
- Proteinases in Connective Tissue Remodeling
- Proteinases in Antigen Presentation
- Proteinases in Processing and Trafficking
- Proteinases in Alzheimer's Disease

RADIATION CHEMISTRY
PLYMOUTH STATE COLLEGE
PLYMOUTH, NH
JUN 25-30, 2000
Klaus-Dieter Asmus, Chair
Paul Barbara, Vice-Chair

- Radiation Chemistry 2000: From Outer Space to DNA
- Free Radicals in Life and Medicine
- Radiation Chemistry and Environment
- Radical Ions: Experiments and Theory
- Radicals in Cages and Bubbles
- New Materials for Electron Transfer and Charge Separation
- Radiation-Induced Processes in Polymers
- Pre-Relaxed Stages in Irradiated Systems and Technical Developments
- Young Investigator Session

REPRODUCTIVE TRACT BIOLOGY
CONNECTICUT COLLEGE
NEW LONDON, CT
JUL 1-6, 2000
Geula Gibori &
Susan Fisher, Co-Chairs
Linda Giudice, Vice-Chair

- Female Reproductive Tract: Novel Mechanisms of Growth Control in the Ovary
- Male Reproductive Tract: Factors that Regulate Development of the Sex Cells and Reproductive Organs
- Grand Rounds in Reproductive Tract Biology
- Signaling Mechanisms that Mediate Critical Transitions in the Mammary Gland
- Genes that Regulate Placental Development
- Uterine Responses that Are Critical to Implantation and Placentation
- Biology of the Reproductive Tract of Large Animals
- Nuclear Receptors as Master Regulators of Hormone Actions

SALT & WATER STRESS IN PLANTS
TILTON SCHOOL
TILTON, NH
AUG 20-25, 2000
Elizabeth A. Bray, Chair
Paul M. Hasegawa, Vice-Chair

- Placing Salt and Water Stress in an Agricultural Context
- Whole Plant Integration of the Stress Responses
- Ion/Solute and Water Transport
- Role of Abscisic Acid
- Signaling and Osmosensing
- Interaction of Salinity/Water Deficit With Oxidative Stress
- Biotechnological Approaches

SECOND MESSENGERS & PROTEIN PHOSPHORYLATION
KIMBALL UNION ACADEMY
MERIDEN, NH
JUN 11-16, 2000
Lee Witters &
Bruce Kemp, Co-Chairs
Jack Dixon &
Ron Taussig, Co-Vice-Chairs

- Phosphodiesterases
- G Protein Function and Regulation
- Metabolic Regulation in Yeast
- TCalcium and Calmodulin Regulation
- Protein Phosphatases
- Tyrosine Kinases
- Protein Kinase B: Regulation and Targets
- Insulin Signaling Pathways

SEPARATION & PURIFICATION
COLBY-SAWYER COLLEGE
NEW LONDON, NH
AUG 6-11, 2000
Rakesh Agrawal, Chair
John Pellegrino, Vice-Chair

- Simulation of Mixed Gases Adsorption - Progress, Promises and Challenges
- Bioseparations
- Crystallization of Organic Materials
- Nonideal and Reactive Distillation
- Extraction
- Membrane Separations
- Novel or New Separation Methods and Equipment
- Microchemical Separation

SIGNAL TRANSDUCTION BY ENGINEERED EXTRACELLULAR MATRICES (NEW)
TILTON SCHOOL
TILTON, NH
JUN 25-30, 2000
Mohammad A. Heidaran, Chair

- Cell Signaling Orchestrating Stem Cell Behavior
- Biomaterials for Engineered Extracellular Matrices
- Convergence of Signaling by ECM and Growth Factors
- ECM/Growth Factor Structure, Composition, and Chondrogenesis
- Tissue Engineering of Bone: A Molecular Approach
- Growth Factors and Nerve Regeneration: What is Missing?
- A Molecular Approach for Fabrication of Skin Scaffolds
- Regulation of Cell Fate with Chemistry and Mechanical Forces
- Geometric Regulation of Cell Life and Death

SIGNALING BY ADHESION RECEPTORS (NEW)
SALVE REGINA UNIVERSITY
NEWPORT, RI
JUL 23-28, 2000
Filippo G. Giancotti, Chair
Rick Assoian, Vice-Chair

- Cadherin/β-Catenin Signaling I, II
- Membrane-Proximal Events in Integrin Signaling
- Integrin-Growth Factor Receptor Cross-Talk
- Regulation of the Cytoskeleton and Cell Proliferation
- Control of the Cell Cycle by Integrins
- Protein Tyrosine Phosphatases
- Adhesive Signaling in Vascular and Epidermal Development
- Adhesive Signaling During Neural Development

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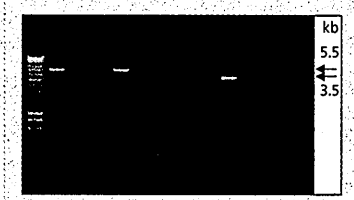
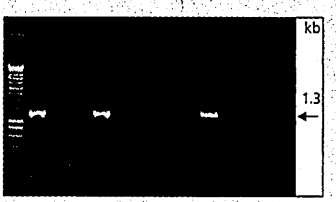


Parallel screen using the 5′ vector-derived primer and a gene-specific reverse primer to determine extent of 5′- end sequence.



Alternate screen using the 3′ vector-derived primer and a gene-specific forward primer to determine extent of 3′ sequence

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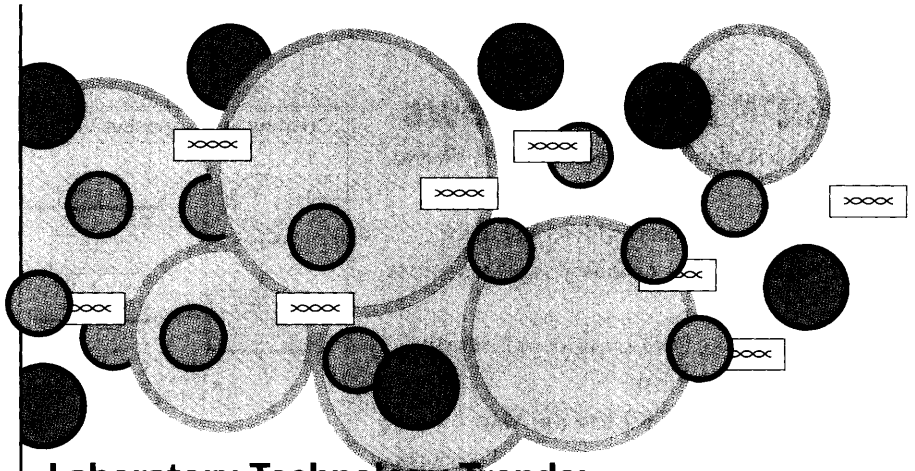

Laboratory Technology Trends:

PCR & Cloning Techniques

A Mature Technology Responds to New Demands

by Peter Gwynne and Guy Page

To meet the demands of high-throughput genetics, users of PCR technology demand faster, more reliable, and more extensive processing. Developers have responded with the instrumentation and enzyme systems that deliver significantly higher performance.

The polymerase chain reaction (PCR) has become one of the technical foundations of genetic research and biotechnology. Within the past few years, scientists have extended the benefits of its unique power from the basic research laboratory into drug development, forensics, agricultural management, and far beyond. That extension has put pressure on developers to continue to improve PCR technology, in small ways and large.

One of the biggest influences on biological and genetic research today is the flood of genomic-sequence data pouring into the databanks, both public and private. As the amount of genetic information increases, demands to process it into useful applications become at once more pressing and more difficult to fulfill. And it is no surprise to find the PCR process often playing a central role in the translation of information into applications. Whether the investigation involves building a microarray, mapping a chromosome, mining data for new sequences, or doing a simple blot hybridization, the protocol at some point is sure to read "amplify the sequence."

Meeting the demands of "high-throughput" genetics requires that standards be raised in all areas. Large amounts of information demand fast processing, reliable processing, and the ability to handle ever-larger numbers of samples. The objectives throughout the process include removing time-consuming steps; using machine intelligence whenever possible; reducing errors to a minimum; and maximizing automation. Technology developers have responded with instrumentation and enzyme systems that deliver significantly higher performance. Here, we discuss a few areas of improvement, with randomly chosen examples of products in the marketplace.

Reliability, Accuracy, and Speed

Thermal cyclers represent PCR's core technology. A PCR set-up's output capacity depends on the reliability, accuracy, and speed of these machines. As life scientists have demanded more of PCR, so have manufacturers of thermal cyclers concentrated on improving speed, increasing the number of samples that can be handled, ensuring higher reliability, and speeding up optimization.

MJ Research has set out to meet life scientists' new needs by creating a version of their conventional thermal cycler that can handle the higher density 384-well microplates now coming into vogue in the lab. "You need a much more highly engineered instrument, plus the appropriate disposable vessels to go with it," explains John Hansen, MJ Research's vice president for communications. "If you try to jury-rig a system, you'll be spinning your wheels with incomplete experiments in which certain wells run dry and others aren't properly loaded or harvested exactly right." Thus, the new instrument is designed to allow a very high density of reactions and to meet the needs of automation and robotic handling.

Idaho Technology, meanwhile, offers what it calls "the fastest machine on the market."

continued ➢

The companies in this article were selected at random. Their inclusion in this article does not indicate endorsement by either AAAS or *Science*, nor is it meant to imply that their products or services are superior to those of other companies.

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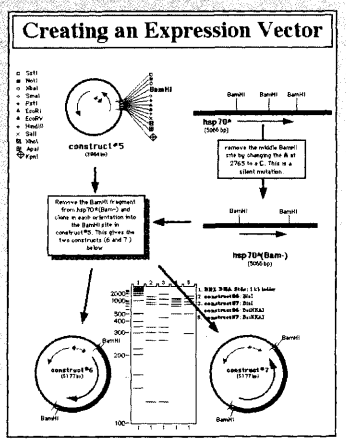
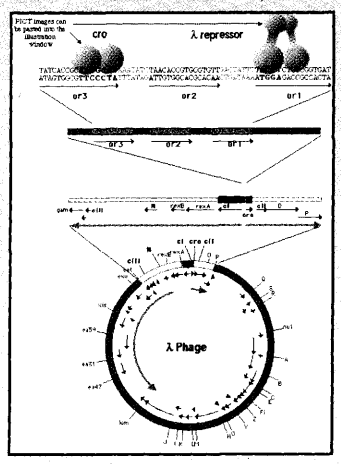


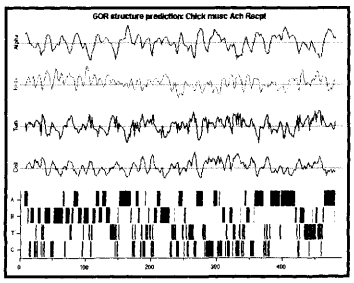
- The preferred Plasmid Design software for the Mac is now available for Windows® 95, 98 and NT as well as Macintosh!
- GCK2 is ideal for planning and tracking complex construction projects with its ability to automatically monitor DNA fragment ends during cutting and pasting graphical representations of constructs.
- The unique Chronography feature tracks the history of any given DNA segment and maintains alternative views - a powerful feature that sets GCK2 apart form the rest!
- The feature set, interface and ease of use are all the same as GCK2 for the Mac.



- All GCK2 Mac files can be opened by Windows PCs, and vice versa. Collaborations with colleagues who have different types of computers are now easier than ever.
- Don't be misled - the original ground breaking GCK is still the best software you can buy!

- *"Over 90% of my daily usage of my computer involves either my word processing application, or Gene Construction Kit. Between these two, I use GCK more often. I can't see how any molecular biology lab can function without it ... I can't." D.M., DowElanco*
- *"... Gene Construction Kit, the single most useful Molecular Biology tool after the Gilson [Pipetman]..." S.S., Nottingham University*
- *"...it's the best program we have ever used for this. It uses not only the plasmid map, but the actual sequence as well. No more messing around with drawings on one program and your sequence on another. In our lab its been well worth the price just for time saved." K.S., Univ. Calgary*
- *"From my experience with the new demo and its very reasonable cost ... there is no reason why any cloning lab should be without this bit of software." H.M., Univ. California, Berkeley*

New Gene Inspector™ 1.5 for Mac



Gene Inspector is a unique combination of an electronic laboratory research notebook combined with a comprehensive set of sequence analysis routines. GI was designed from the ground up to work the way you naturally work and think as a biologist.

- The new GI 1.5 has the best multiple sequence display tool available. It is amazingly flexible. You can put in place multiple custom "adornments" to display the alignment any way you choose.
- GI 1.5 offers over 60 different DNA and protein analyses - see Textco's web site for more information.
- GI 1.5 offers extensive drag&drop options within GI and between GI and other drag&drop enabled applications such as Adobe Photoshop® and Illustrator®, and Microsoft PowerPoint® and Word®.
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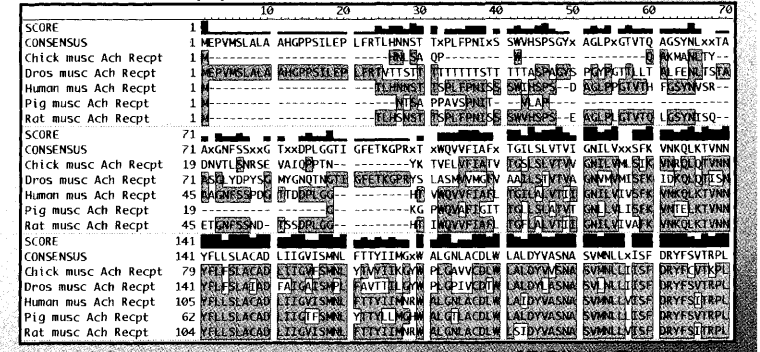

- *"Because it doesn't require users to change their old paper-notebook habits, anyone familiar with sequencing can use it with no training. ... a lot of molecular biology packed into a single, moderately priced program, and it's all presented in an interface that's nearly self-explanatory. ... Gene Inspector is one of the best pieces of science software ever released." Macworld, Sept. 1997, review*
- *"The Gene Inspector introduces a new computing philosophy to the molecular biology laboratory ... [it] employs what I believe is the new paradigm in molecular biology computing -- Analysis Suites" - Biotechnology Software and Internet Journal, Sept./Oct.1996, review*

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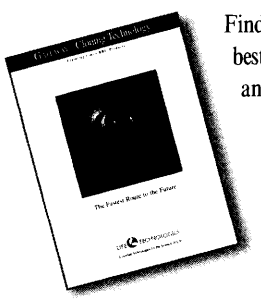

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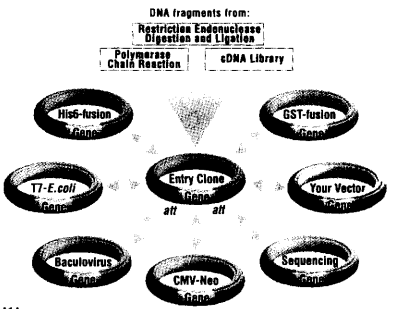

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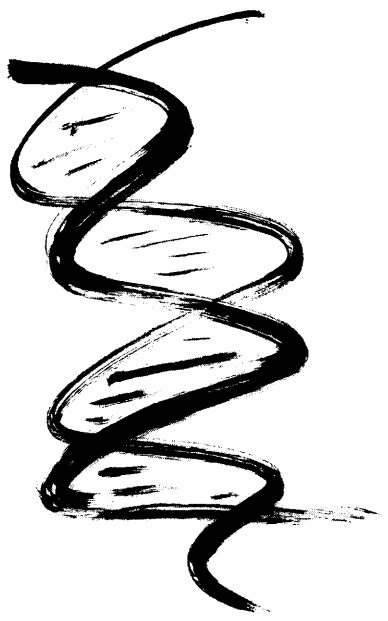

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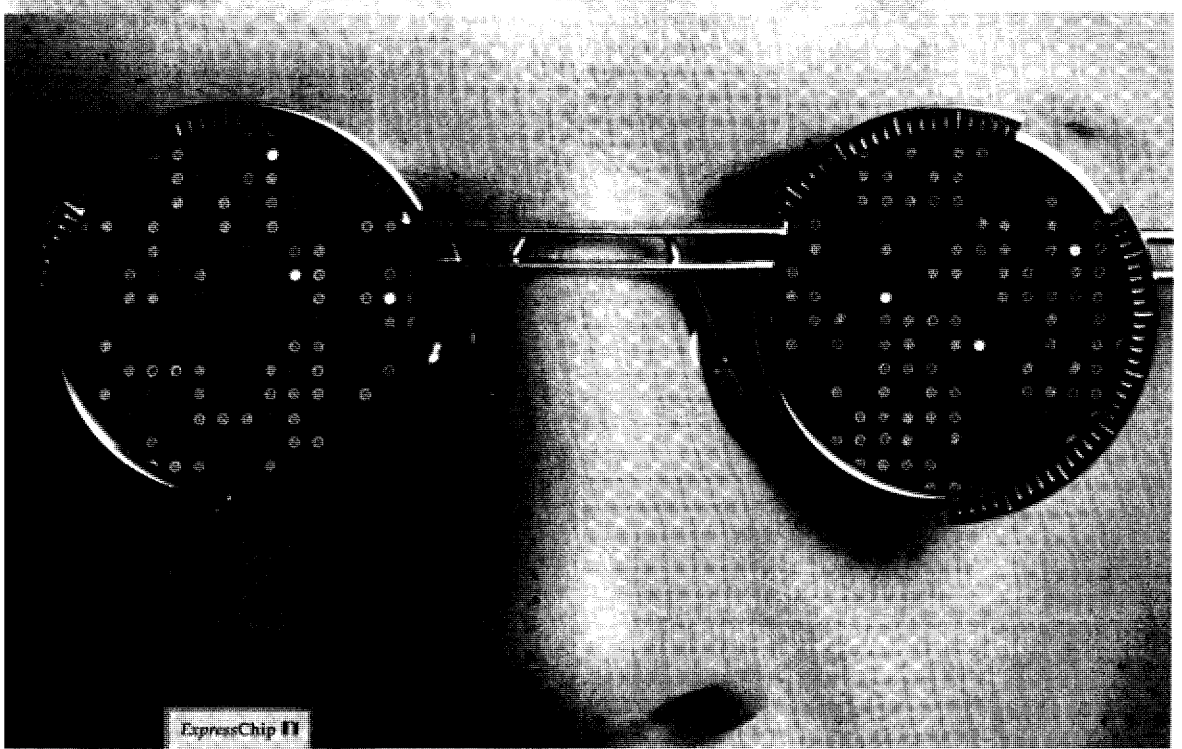

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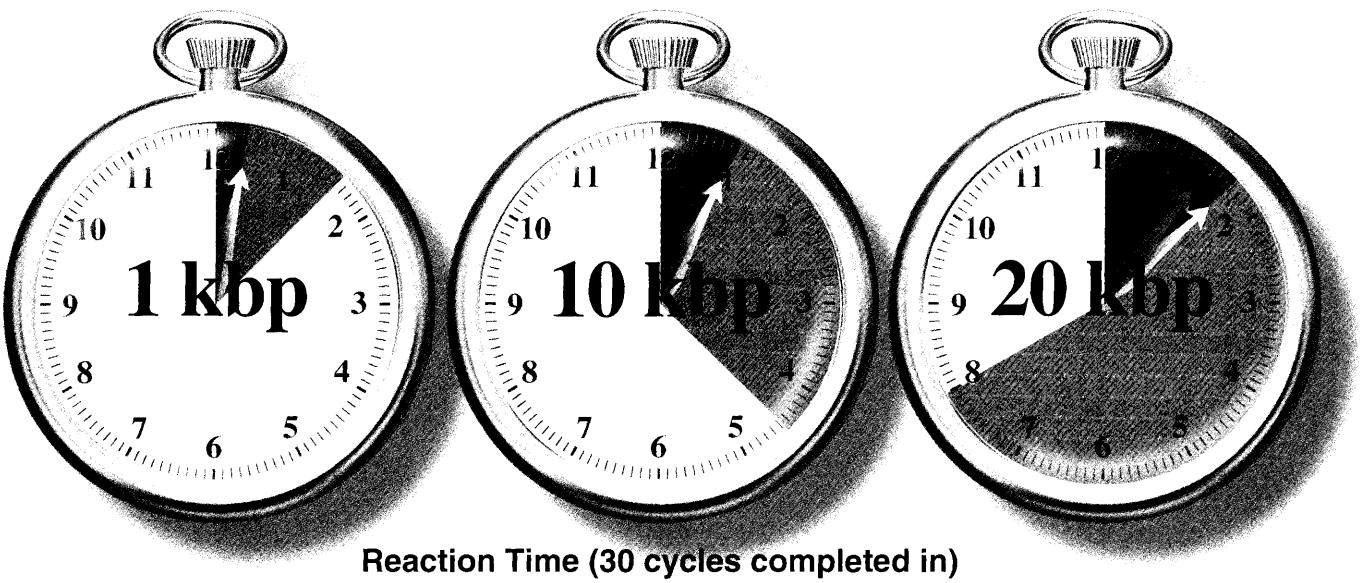

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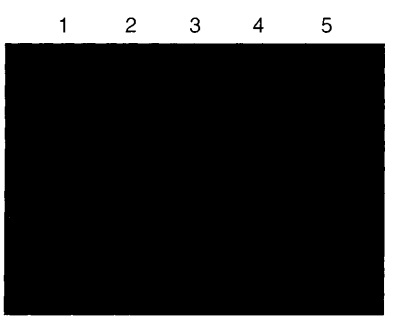
on the TaKaRa PCR Thermal Cycler PERSONAL by performing 30 cycles: Using 5 sec-denaturation time at 98° C, extension times are 2 sec, 70 sec and 150 sec at 68° C, respectively for 1 kbp, 10 kbp and 20 kbp.



Lane (5 µl applied for the Electrophoresis)

1. pHY marker
2. 1 kbp
3. 10 kbp
4. 20 kbp
5. λ-*Hin*d III marker

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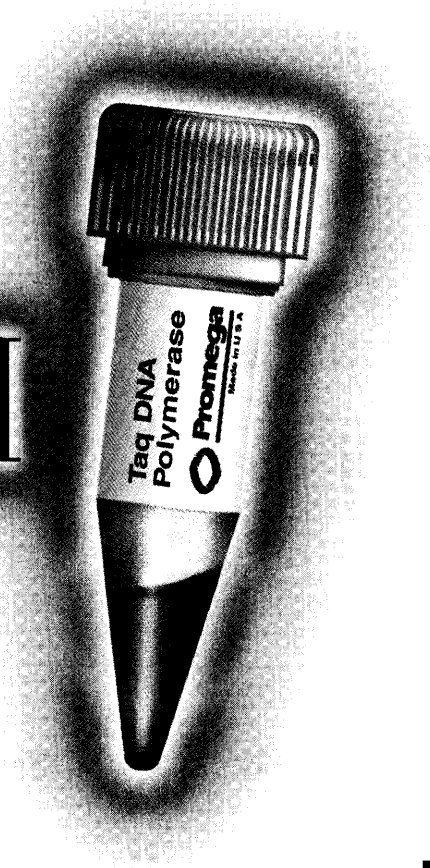

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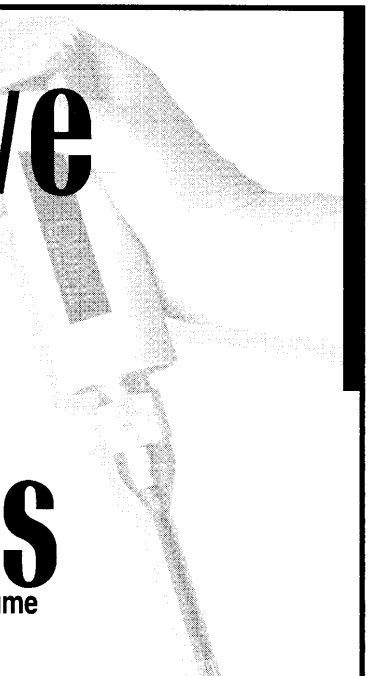

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Whereas heat block cyclers can take hours to carry out 30 temperature cycles, the RapidCycler can complete a 30-cycle reaction in less than 10 minutes. It does so by using micro-capillary tubes and air as the cycling medium. Last year, Idaho introduced a portable version of the LightCycler technology that identifies biological warfare agents in the field. Originally commissioned by the U.S. Air Force, RAPID (for Ruggedized Advanced Pathogen Identification Device) has potential use in law enforcement and monitoring food and water.

Error-free Enzymes

Scientists demand more than speed from their PCR reactions. Completing the reactions without errors matters just as much. Doing so depends on the enzyme system. Researchers who have put up with the notorious error rates of the Taq enzyme for several years now clamor for higher-performance enzyme systems designed to perform reliably across vastly different conditions, to process "tough" samples of DNA, and to produce long PCR products as effectively as short ones.

To meet that demand, EPICENTRE Technologies introduced its FailSafe PCR System last summer. "It's a unique blend of thermostable enzymes, including a proofreader, a set of PCR pre-mixes, and the FailSafe PCR Enhancer," explains EPICENTRE's president Gary Dahl. "It allows you to do high G-C templates and long templates, such as 20 kilobases. And the proofreader gives it very high fidelity. Several of our customers have told us that they were able to amplify templates using the system that they couldn't amplify before."

MJ Research has recently upgraded its Dynazyme enzyme, based on the *Thermus brockianus* enzyme. "Dynazyme has a very robust nature," says David Titus, product manager for consumables. "Our Dynazyme EXT variant has a small amount of proofreading enzyme mixed with the *Thermus brockianus*. This imparts fidelity as high as that from the best enzymes anywhere, but this enzyme is much less fussy. It can handle a variety of template and salt conditions, as well as "impossible templates," such as those with more than 80% G-C content.

Large amounts of information demand fast processing, reliable processing, and the ability to handle ever larger numbers of samples.

The RNA Imperative

Expression analysis, often within the context of microarrays, has emerged as a rapidly developing field in genomics. The goal is to use the vast amounts of genetic information to measure the fluctuations of genetic activity across thousands of genes as the organisms — yeast fruit flies, mice, or humans — encounter environmental or genetic change. To do this, researchers need RNA, which they must amplify. Several companies have responded with simplified, one-step RT- PCR systems.

Most new systems focus on doing the reaction in a single step. Qiagen's OneStep RT-PCR kit contains a unique enzyme combination that includes two RNA polymerases and a DNA polymerase, along with a specially developed reaction buffer. The idea: ensuring efficient reverse transcriptase and PCR in one tube. The GeneAmp gold RNA PCR kit that PE Biosystems released recently "contains a low-temperature enzyme used for RNA templates with a secondary structure," says PE's Casey Chin. "It is a one tube RT-PCR reaction that combines a multi-scribe reverse transcriptase with amplitaq Gold DNA polymerase, a hot start DNA polymerase. The combination brings higher sensitivity, specificity and yield."

Speed Cycling

The drive to develop effective and affordable quantitative PCR is leading to several new instruments and reagent technologies. Two specialized cyclers promise to make a particular impact.

The LightCycler from Roche Molecular Biochemicals integrates a microvolume fluorimeter into the cycler. "We're planning a software upgrade this summer," says U.S. marketing manager Glenn Martin. "The biggest push in this area is to make the kits 'plug-and-play.' The more automated the tests, even at the research level, the better."

The iCycler, introduced in December by Bio-Rad Laboratories, "can be used as a common or garden cycler or to see what you have in real time," says Bio-Rad's Shannon Hall. The real-time capability comes from a special fluorescence detection adapter. The instrument "allows you to do any kind of confirmation of PCR success or to answer yes-or-no questions without having to interfere with the PCR," adds Hall.

Molecular Beacons

Several reagent companies have fielded a new technology that delivers PCR quantitation without the need for expensive dedicated instruments. Molecular beacons are custom-synthesized oligonucleotides that contain both a fluorescent dye and a quencher of fluorescence. The quencher is normally positioned next to the dye. During the PCR reaction the two separate and the dye becomes visible.

Molecular beacons have found use in real-time quantitation assays, end-point allele discrimination, and *in situ* visualization of messenger RNA in living cells, according to Tori Bonner, spokesperson for Research Genetics, a distributor of molecular beacons. "We see the market growing as spectrofluorimeters drop in price," she says.

Strategene says that its Sentinel molecular beacons "are well suited for both qualitative (endpoint) and quantitative (real-time) PCR analysis and monitoring. Qualitative analysis utilizes a fluorimeter, while quantitative analysis requires a spectrofluorometric thermal cycle. Either may be used for the most basic molecular beacon application, which is determining the presence of a specific amplified product." ■

Need information on PCR and Cloning Techniques?
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Peter Gwynne is a freelance science writer based on Cape Cod, Massachusetts. Guy Page is managing director of Ferguson Forth Page, a consulting firm in Madison, Wisconsin.

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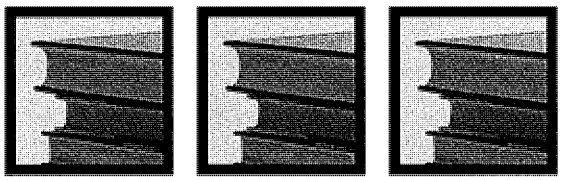


FACULTY POSITIONS
Getting Onto the Tenure Track

Landing that first faculty position in life science demands excellent credentials, careful preparation, plenty of perseverance — and perhaps a willingness to expand your search beyond research universities.

by Peter Gwynne

LITERALLY HUNDREDS of applicants apply for each tenure-track position in life science at major American universities. Even making it to the short list requires a strong record of achievement in research, preferably at a high-profile university. It also requires some intangibles that you often don't learn about in your graduate lab courses.

First, treat your applications with as much care as your experiments. Learn all you can about the position, the department, and the university. And tailor your cover letter to that knowledge. At interviews, bring your communication skills into play. You must present your work effectively to panels of scientists who are not necessarily experts in your field and must convince the same individuals that you will make a good colleague. Also, be prepared to outline your vision of your academic career and to make a fast but well-reasoned decision if you receive an offer.

One other point is significant for scientists who want to remain in academe. Elite research universities represent just one option. For example, equally elite liberal arts colleges that expect their faculty members to carry a strong teaching load in addition to undertaking significant research can offer an just as satisfying an academic career.

Increasing numbers of applicants for faculty positions face the 'two-body problem' — the need to relocate with partners who are also seeking academic positions. Participants in faculty recruitment disagree over the best time to mention one's partner.

Here, we discuss the issue of faculty positions in life science with two senior academics involved in hiring and an individual who successfully found an appropriate faculty position despite several constraints on the type of job she could accept.

LOS ANGELES, California: "We get 150–350 applicants for each position," says Jack Feldman, Professor and Chair of the department of neurobiology at the University of California, Los Angeles. "In every search, we see a handful of exceptional candidates who catch the eye of the committee. We usually end up going after the top 5 percent or fewer."

How does a candidate make it onto such a tough short list? Working on important scientific problems and producing high-profile, high-impact papers help, says Feldman. So do training in top-notch laboratories and letters from marquee scientists that state: "This is one of the best people I've seen in my lab for the past decade."

The real test comes after you've made the short list. Feldman expects each candidate to give a seminar that reveals skills beyond scientific excellence. "We're looking at the ability to communicate, for teaching, and to articulate, for grant-writing," he explains. "We're looking for someone with vision and a plan for the future. We're interested in leadership potential, people skills, and realistic expectations in terms of start-up needs and activities for the next few years."

Having identified their top candidates, academic departments must often shift into recruitment mode. For while faculty positions in elite research universities are strictly limited, those institutions battle hard for the best and brightest applicants. Here, candidates can bring their negotiating skills into play. "People should think about what it means to negotiate and make sure that they're in an informed position when they get an offer," says Feldman. "I often wind up mentoring people we're negotiating with to make it a win-win situation."

What of individuals who don't want to work in research-oriented institutions? "There are many other opportunities in academia," says Feldman. "Teaching positions at small colleges, with fewer research demands, are available."

A former science editor of Newsweek, *Peter Gwynne writes about science and technology from his base on Cape Cod, Massachusetts, U.S.A.*

CONTINUED ➢

FLORIDA STATE UNIVERSITY

Endowed Professorships (3)

Molecular Sciences

As part of a coordinated expansion in the Basic Molecular Sciences, the College of Arts and Sciences of Florida State University seeks nominations and applications for three Endowed Professorships in the following areas:

- *Macromolecular Nuclear Magnetic Resonance*
- *Bio-Computational Chemistry*
- *Macromolecular X-ray Crystallography*

The NMR and computational professorships are the first of a series of endowed positions associated with a new Molecular Recognition Program within the Department of Chemistry. A professorship named after the University's founder, Francis Eppes, will also be offered within the Department of Biological Science in association with the interdepartmental Institute of Molecular Biophysics.

Florida State University is at the start of a major expansion in the Basic Sciences. In the coming years up to 50 faculty candidates will be sought for an approved expansion into the Basic Biomedical Sciences, and an additional 20 associated with a new School of Computational Science and Information Technology, of which 6-8 are planned in the area of Computational Biology. The Department of Chemistry has recently secured funding for a new $24M building.

These expansions build upon a strong base in experimental science. The chair in NMR will play a leadership role in the development of high resolution NMR within the National High Field Magnet Laboratory. The Endowed Professors will become leaders within the Structural Biology Program that already includes faculty research groups representing NMR (3), Crystallography (4), EPR (3), Mass Spectroscopy and *cryo*-EM. Strong departmental research programs are exemplified by the synthesis of Taxol, royalties from which are funding much of the current initiative.

Florida State University seeks to fill these positions with leaders who have achieved international recognition for excellent research programs. Applications to the Chairs of the respective committees should include a curriculum vitae, a list of publications, and the names of three referees. Nominations and (confidential) enquiries are also welcome. Florida State University is an equal opportunity/ affirmative action employer.

FloridaState UNIVERSITY

Dr Alan G. Marshall, Chair
NMR Search Committee
Department of Chemistry
Florida State University
Tallahassee, FL 32306-4390

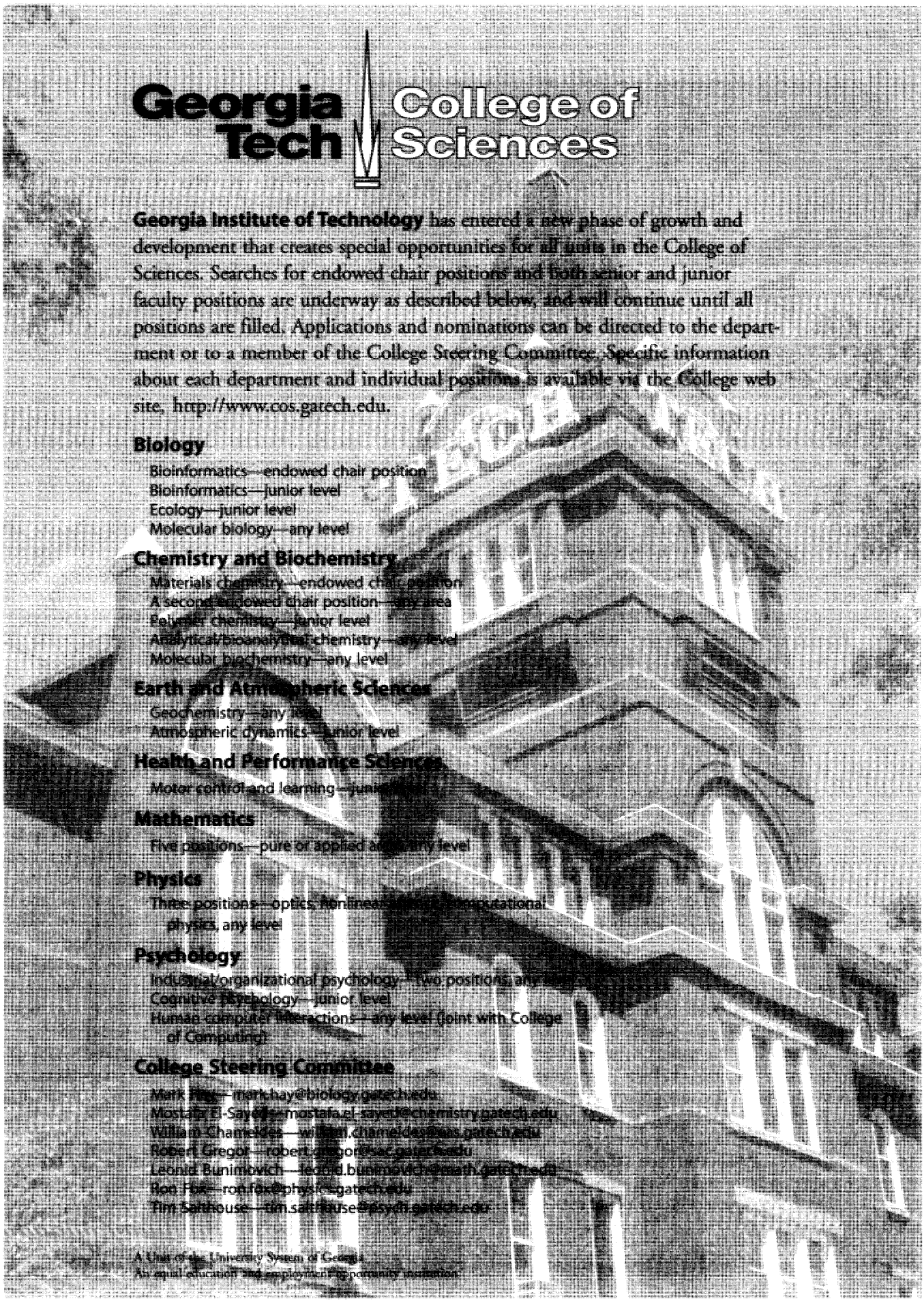
Phone: (850) 644-0529
Fax: (850) 644-1366
Email: marshall@magnet.fsu.edu

Dr. Michael S. Chapman, Chair
Bio-Computational Search Committee
Department of Chemistry
Florida State University
Tallahassee, FL 32306-4390

Phone: (850) 644-8354
Fax: (850) 561-1406
Email: chapman@sb.fsu.edu

Dr. W. Ross Ellington, Chair
X-ray Eppes Search Committee
Department of Biological Science
Florida State University
Tallahassee, FL 32306-4370

Phone: (850) 644-0451
Fax: (850) 561-1406
Email: elling@sb.fsu.edu



Georgia Tech College of Sciences

Georgia Institute of Technology has entered a new phase of growth and development that creates special opportunities for all units in the College of Sciences. Searches for endowed chair positions and both senior and junior faculty positions are underway as described below, and will continue until all positions are filled. Applications and nominations can be directed to the department or to a member of the College Steering Committee. Specific information about each department and individual positions is available via the College web site, http://www.cos.gatech.edu.

Biology

- Bioinformatics—endowed chair position
- Bioinformatics—junior level
- Ecology—junior level
- Molecular biology—any level

Chemistry and Biochemistry

- Materials chemistry—endowed chair position
- A second endowed chair position—any area
- Polymer chemistry—junior level
- Analytical/bioanalytical chemistry—any level
- Molecular biochemistry—any level

Earth and Atmospheric Sciences

- Geochemistry—any level
- Atmospheric dynamics—junior level

Health and Performance Sciences

- Motor control and learning—junior level

Mathematics

- Five positions—pure or applied areas, any level

Physics

- Three positions—optics, nonlinear dynamics, computational physics, any level

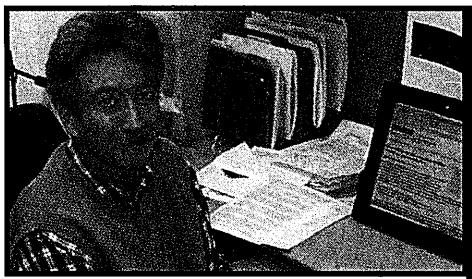
Psychology

- Industrial/organizational psychology—two positions, any level
- Cognitive psychology—junior level
- Human computer interactions—any level (joint with College of Computing)

College Steering Committee

- Mark Hay—mark.hay@biology.gatech.edu
- Mostafa El-Sayed—mostafa.el-sayed@chemistry.gatech.edu
- William Chameides—william.chameides@eas.gatech.edu
- Robert Gregor—robert.gregor@ae.gatech.edu
- Leonid Bunimovich—leonid.bunimovich@math.gatech.edu
- Ron Fox—ron.fox@physics.gatech.edu
- Tim Salthouse—tim.salthouse@psych.gatech.edu

A Unit of the University System of Georgia
An equal education and employment opportunity institution



"We're looking for someone with vision and a plan for the future. We're interested in leadership potential, people skills, and realistic expectations..."

Jack Feldman, University of California, Los Angeles

BLACKSBURG, Virginia: Tracy Wilkins has a pet peeve. "We get well over 100 applications per position, but most of them are worthless," says the director of the Fralin Biotech Center at Virginia Tech. "The problem with computers and e-mail is that people can hit a button and apply for a position." The unfortunate result: generic applications from individuals who have no knowledge of Virginia Tech, the Fralin Center, or the position on offer, and what Wilkins calls "a pathetic lack of understanding of what a faculty job is."

The ignorance doesn't stop there. Several well-qualified life scientists who make it to the short list put themselves out of contention as soon as they stand up to speak. "They don't know how to interview," complains Wilkins. "Their presentations and slides are atrocious. They don't realize that we want to see how well they teach. Faculty members conducting interviews are also making judgments on whether a candidate will be a good colleague and the right person for cooperative research projects."

How can applicants improve their chances of getting a job? "Approach it a lot more from a business point of view," advises Wilkins. "Business applicants read about the job and learn how to do interviews, presentations, and seminars. I train postdocs that way, and they get jobs." The training isn't easy, though. "Initially they were so boring that it was ridiculous," Wilkins recalls. "I made them tell a story rather than the hard science and only the hard science. I taught them to make presentations for the whole audience rather than just one or two members."

Once an interview starts, Wilkins expects full cooperation. If a candidate has a spouse or a partner who also needs a job to justify a relocation, he says, "tell us early in the proceedings before you waste everybody's time. Sometimes, we find that the situation can be worked out. But we may not have the ability to help." And when you go on an interview, he adds, "be ready to make decisions. If a candidate is ready to accept our offer on the spot, we'll go with it. If he or she wants to wait for over a month, then our interest falls." Finally, Wilkins advises, "If you have several offers, don't stall on all of them. That's unfair to the other applicants. And it shows you're incapable of making important decisions."

AMHERST, Massachusetts: With a Ph.D. in immunology from Hahnemann University, followed by postdoctoral experience in transplant immunology at Oxford University and in the immunology of HIV at the University of California, San Francisco, Sharon Stranford had all the qualifications for a faculty position in a research university. "But I was looking more for an undergraduate institution," she recalls. "I knew that I wanted teaching to make up a substantial part of my job."

She had one more requirement. Her partner was seeking a faculty position in physics, and they wanted to find jobs that would permit them to remain together.

Stranford started to prepare several years in advance. For example, she gained teaching experience by teaching students at Oxford's University College, which elected her a research scholar. She served on committees at UCSF. "I also wrote mock letters of application far enough in advance to run them by my colleagues and mentors," she says.

As advertisements appeared for promising faculty jobs, Stranford sought to learn about the institutions. She searched web sites, consulted the *Fiske Guide to Small Colleges*, and talked to everyone she could find with connections to the target colleges. Finally, a full academic year before she hoped to take up a faculty position, she and her partner started to send out applications, each one carefully customized.

Several colleges initially interviewed her by phone. "The calls are probably more specific to small colleges, whose applicants may not realize how strong the teaching emphasis is," she says. "A lot of them were to gauge my real interest. Some scientists take misguided advice to apply for positions at teaching colleges when they really want jobs at large research universities. Small colleges don't want to consider them, because they are often not prepared for the level of teaching expected of the faculty and the challenges of conducting salient research in an undergraduate environment."

The in-person interviews went well for Stranford and her partner. "Both of us got offers at every place we interviewed," she says. "At that point, we let people know we had the problem of two people. We were advised not to mention our partners until we received an offer." They also suggested ways in which the offering institutions could help them to stay together — an approach appreciated by college authorities.

The strategy worked. After turning down three tenure-track offerings, Stranford has a two-year visiting professorship, which she describes as "almost as good as a tenure-track position," at Amherst College. Her partner is on the tenure track at nearby Mount Holyoke College.

Stranford's advice to other seekers of faculty positions: "Start early and know the places you're applying to. Be specific in your applications." Most important, she adds, "know what you want, and go for it." ▩

For further valuable career features, go to www.scienceonline.org, click on ***Science Careers,*** then click on **Advice and Perspectives.**

HARVARD UNIVERSITY CENTER FOR GENOMICS RESEARCH
CGR FELLOW POSITION *Join Us!*

We are building a community of scholars from the fields of biology, chemistry, engineering, computer science, physics and medicine to work under one roof and advance our understanding of complex biological systems.

If you are an exceptional researcher at the post-doctoral level and are interested in multidisciplinary genomics research, you are encouraged to apply for a Fellow position.

As a Fellow, the Harvard Center for Genomics Research (CGR) will fund you and your team of 1-2 technicians and post docs to develop a genomics technology or work on a biological problem with an integrated set of genomics tools.

Example technologies and research areas include:

- Genome manipulation techniques
- Microarray technology and applications
- Protein analysis tools
- Biological imaging technologies
- Evolution studies
- Bioinformatics
- Systems analysis

We welcome any technology or problem directed at a system-wide approach to biology. As an independent investigator with no teaching responsibilities, you can focus on your research while interacting and collaborating with Harvard faculty members.

For more information and electronic submission of your application, visit: cgr.harvard.edu or mail your application to the Center for Genomics Research, 16 Divinity Ave., Cambridge, MA 02138.

Harvard University is an affirmative action, equal opportunity employer.

Tenure Track DNA Repair

A tenure track position is available in the Laboratory of Molecular Genetics (LMG), National Institute on Aging. The individual is expected to develop an independent research program in the area of DNA repair mechanisms, particularly as they relate to transcription and/or replication. The individual should have an interest in the molecular mechanisms of aging, and experience with enzymology of proteins involved in the aging process is preferred. Current research in the LMG is focused on oxidative DNA damage processing, DNA repair and transcription in human premature aging syndromes, and mitochondrial DNA damage processing. The candidate should have knowledge and experience in the area of DNA repair, and should have a strong record of scientific accomplishment as evidenced by quality peer-reviewed publications. Applicants should send a curriculum vitae, three letters of recommendation, a two-page statement of research interests, and proposed research program as well as select publications to:
Chair, LMG Tenure Track Search Committee, **c/o Ms. Karen Maben**, Personnel Office, National Institute on Aging, NIH, Box 26, 5600 Nathan Shock Dr., Baltimore, MD 21224-6823. Attn: VA#NIA-00-08. For further information email Dr. V. Bohr, Chief, LMG at vbohr@nih.gov.

Applications must be postmarked by March 13, 2000.

NIH is an Equal Opportunity Employer

Endowed Chairs

Delaware Biotechnology Institute Professorships

The University of Delaware seeks nominations and applications for two endowed, named chairs, each of which will be tenured appointments within the Delaware Biotechnology Institute (DBI) and within one or more academic departments at the University of Delaware: professor specializing in plant molecular biology and professor specializing in proteomics. Successful candidates will hold a Ph.D., possess a distinguished record of scientific accomplishments, and be recognized in their field as broadly based and visionary. Successful candidates will be involved in the hiring of additional faculty and are expected to provide energetic leadership and direction in furthering the DBI's position at the forefront of life sciences research and education. Demonstrated experience is essential in leading interdisciplinary research teams, developing strong, externally funded research programs, and stimulating the work of others.

The Delaware Biotechnology Institute is a partnership involving state government, the Delaware institutions of higher education, and area industry. The mission of the Institute is to engage in leading-edge scientific discovery in the life sciences, provide biotechnology-based education, and promote economic development and the creation of high-quality jobs. A new 70,000 sq. ft. state-of-the-art research facility is under construction to house interdisciplinary DBI research staff encompassing plant/cell molecular biology, animal genetics, gene discovery and alteration, computational biology/computer science, proteomics/biochemistry, bioprocessing, and biomaterials. The DBI research staff will be supported by an infrastructure composed of NMR, microscopy, biotechnology, and computing centers. The DBI research staff will be considered integral components of comparable disciplines in the University departments. For more information on the DBI, see www.DBI.udel.edu.

The University of Delaware, founded in 1743, is one of the oldest land-grant institutions in the nation, one of 19 sea-grant institutions, and one of only 13 space-grant institutions. Located in the heart of key life sciences industries such as DuPont, Astra-Zeneca, and Hercules, it is a major state-assisted, private university with nationally recognized research and educational programs supported by state-of-the-art laboratories, an expansive library, and an existing and expanding infrastructure for biotechnology research. For more information on the University of Delaware, see www.udel.edu .

Candidate reviews will begin February 15 and will continue until the positions are filled. Interested candidates should forward a letter of application, full curriculum vitae, and the names and contact information for at least four references to: **David S. Weir, Chair, DBI Search, c/o Engineering Outreach, University of Delaware, 135 DuPont Hall, Newark, DE 19716-3101.**

The UNIVERSITY OF DELAWARE is an Equal Opportunity Employer that encourages applications from Minority Group Members and Women.

UNIVERSITY OF DELAWARE

DELAWARE BIOTECHNOLOGY INSTITUTE

Smith College
Picker Engineering Program

Smith College invites applications and nominations for several faculty position openings in the new Picker Engineering Program starting in the fall of 2000. Opportunities exist for tenured, tenure-track and temporary appointments. Successful candidates will be instrumental in structuring and launching the new curriculum and be able to teach in one or more of the following areas: continuum mechanics (solid & fluid), thermochemical processes (thermodynamics, heat & mass transfer), electromagnetics (fields, waves, circuits). They will also be expected to sustain nationally respected research programs in environmental engineering, computer/electrical engineering, biotechnology, material science, or other appropriate area allied to strengths in Smith's existing programs in environmental science, biological sciences, computer science, and physics, chemistry and mathematics. We are especially soliciting applications from scholars who will develop innovative approaches to engineering education that capitalize on an intimate liberal arts environment. Smith College, consistently ranked as one of the nation's top liberal arts colleges, is the first women's college to offer a major in engineering. A rigorous program of study will lead to a B.S. degree in Engineering Science. ABET accreditation will be sought.

Send a curriculum vitae, list of five references and personal career statement that includes the candidate's philosophy regarding the teaching of engineering in a liberal arts environment to: Chair, Engineering Search Committee, Picker Engineering Program, Smith College, Northampton, MA 01063. Review of applications will begin February 1, 2000 and continue until the positions are filled. Applications from members of underrepresented groups are especially welcomed.

Smith College

Visit us at www.smith.edu

University of Colorado Health Sciences Center

Endowed Chair in Craniofacial/Developmental Biology

The University of Colorado Health Sciences Center Schools of Dentistry and Medicine are seeking candidates to develop a nationally/internationally recognized research program in the area of mammalian craniofacial growth and development, with emphasis on cellular and molecular mechanisms. Candidates should have a doctoral degree, an outstanding research record, proven leadership and a history of developing an interactive research program. Additional resources and faculty positions will be made available for the development of this program. Interested individuals should send a CV, one page description of current research activities and names of three references to:

Dr. Howard M. Landesman
Dean, University of Colorado School of Dentistry
4200 E. 9th Ave., C-284
Denver, CO 80262

The University of Colorado Health Sciences Center is committed to equal opportunity and affirmative action

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DIRECTOR
INSTITUTE OF GEOPHYSICS AND PLANETARY PHYSICS
University of California, RIVERSIDE

igpp

Applications are invited for the position of Director of the University of California, Riverside (UCR) Institute of Geophysics and Planetary Physics (IGPP). The Director is the scientific and administrative head of the Institute. He/she should be eligible for a joint appointment as a tenured professor of the University of California, Riverside in the department of the candidate's discipline.

The Institute of Geophysics and Planetary Physics is a major Multi-campus Research Unit (MRU) of the University of California with branches at UCLA, UCR, UCSC, UCSD, LANL and LLNL. Research at the different IGPP branches includes astrophysics, climatology, geochemistry, geophysics, paleobiology, physical oceanography, and planetary and space physics. Research at UCR includes tectonics and geodynamics, environmental geophysics, solid and fluid geophysical systems, mineral physics, high-energy astrophysics, plasma physics and archaeometry. Applicants in complementary areas and especially in the fields of high-energy astrophysics, tectonics and geodynamics, and the physics and chemistry of solid-fluid interfaces are encouraged to apply. More information can be found at http://cnas.ucr.edu/~igpp/home.html. The IGPP at UCR has a staff of about 25 faculty, professional researchers and postdoctoral researchers.

The Director should be an active internationally distinguished researcher with a demonstrated ability for administrative and scientific leadership especially in an interdisciplinary setting. He/she is expected to have a strong commitment to graduate student education and teaching and for promoting extramural research funding. Salary is commensurate with experience and the level of appointment in the tenured professor series of the University of California and will include an administrative stipend for the directorship.

Applications should include a curriculum vita, a list of publications, statement of research interests and names and addresses for at least three letters of recommendations. Applicants should be willing to submit additional references on request. Materials should be sent to: **Chair, IGPP Director Search Committee, CNAS Dean's Office, 311 College Building North, University of California, Riverside, CA 92521.**

Full review of applications will begin on 10 April 2000 with an appointment date as early as 1 July 2000. Applications will be accepted until the position is filled. Requests for additional information regarding the position can be directed to lisa.arth@ucr.edu.

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

THROMBOSIS RESEARCH
Postdoctoral and Junior Faculty Positions
Baylor College of Medicine, Houston, Texas

An excellent career opportunity studying vascular thrombosis in a new Thrombosis Research Section. The broad area of interest is the molecular pathogenesis and treatment of vascular thrombosis. We are seeking applicants to study:

- biochemistry and structure of platelet membrane glycoproteins
- molecular genetics and genetic epidemiology of arterial thrombosis
- effects of shear stress on thrombus formation
- effects of sex hormones and their receptors on thrombus formation
- signaling through platelet membrane glycoproteins

Other areas of interest for this expanding group include gene therapy, clinical trials related to and pharmacogenetics of arterial thrombosis, and mouse knock-outs and knock-ins. Send curriculum vitae and names of 3 U.S. references to:

Paul F. Bray, M.D.
José A. López, M.D.
Thrombosis Research Section
Department of Medicine
Baylor College of Medicine
6550 Fannin, Suite 1290
Houston, Texas 77030

TEMPLE UNIVERSITY

College of Science and Technology
Center for Bioengineering and Biomaterials

As part of a major expansion in the sciences, the new College of Science and Technology at Temple is recruiting for thirty new faculty positions in the areas of Computer Science, Biotechnology, Physical Sciences, Engineering, and Mathematics. Fifteen new faculty members have already joined the College with strong research programs and peer reviewed grant support, resulting in an increase in excess of five million dollars in external funding. Faculty searches for the remaining fifteen positions are in progress.

The College of Science and Technology has formed the Center for Bioengineering and Biomaterials, and invites applications for two tenure-track positions in the following general areas.

- **Biomechanics**, including modeling of natural and artificial tissues at the macroscopic and cellular levels.
- **Processing/Manufacturing**, including topics such as hybrid composites, biomimetic materials, nanotechnology, robotics, and microfabrication.

Newly hired faculty in the Center will be given tenure-track appointments in the Department of Mechanical Engineering, a department of the College of Engineering, which is a subunit of the College of Science and Technology. Successful candidates are expected to have or be able to develop significant research programs and to provide effective instruction at both undergraduate and graduate levels in mechanical engineering. Appointments are possible at all academic levels appropriate to experience. Applicants for Associate Professor or Full Professor are expected to have a substantial publications record and an externally supported research program. We especially encourage applications from candidates whose research is interdisciplinary in nature. Salaries for new faculty are highly competitive and substantial resources have been allocated for start-up funding.

The College of Science and Technology offers Bachelor's, Master's, and Ph.D. degrees in basic and multidisciplinary areas. Temple University, located in Philadelphia, Pennsylvania, is part of the Pennsylvania Commonwealth System of Higher Education and serves more than 28,000 students.

Applicants should submit a curriculum vitae, three representative publications, a statement of research interests, and a statement of teaching philosophy, and should arrange for four letters of reference to be sent directly to the address below.

Professor George Baran
Chair, Search Committee and Director
Center for Bioengineering and Biomaterials
Office of the Dean
College of Science and Technology
Barton Hall, Room A409
Temple University (009-00)
Philadelphia, PA 19122, USA

Temple University is an Equal Opportunity/ Affirmative Action Employer and specifically invites and encourages applications from women and minorities. Information about Temple University is available at http://www.temple.edu.

UNIVERSITY OF MISSOURI COLUMBIA

Tenure-Track Faculty Positions in Viral (Microbial) Pathogenesis and Immunology

As part of an exciting new phase of expansion, the Program in Microbial Pathogenesis and Immunity (PMPI), a state-supported, multi-disciplinary program based in the School of Medicine and the College of Veterinary Medicine at the University of Missouri-Columbia (www.biotech.missouri.edu) seeks to recruit two individuals with outstanding background and potential in the area of microbial pathogenesis and immunity to disease. Successful candidates will hold the Ph.D., M.D., or D.V.M. degree; have appropriate post-doctoral training; be expected to establish outstanding, independent research programs that will attract continued extramural funding; and be expected to participate in the training of graduate students and postdoctoral trainees. Program faculty enjoy excellent resources in a highly interactive, rich scientific environment, which includes state-of-the-art core facilities for nucleic acid sequencing, flow cytometry, confocal, fluorescence and electron microscopy, mouse transgenics, ES cell manipulations, hybridoma production, comprehensive protein analysis and production, and micro-array technologies. Packages including highly competitive salary and start-up funds are available. Interested candidates should submit a curriculum vitae, a statement of their research interests and future research goals, along with the names and addresses of at least three referees. Applications will be reviewed starting April 1, 2000 and will be considered until position is filled. Please clearly indicate to which of the following positions you are applying.

1) Junior Faculty in Viral (Microbial) Pathogenesis. We are seeking someone at the Assistant Professor level with an emphasis in the molecular aspects of viral pathogenesis - however, especially well qualified candidates at a more senior level, and individuals working in other areas of microbial pathogenesis will also be carefully considered. Address application to: Chair, Microbial Pathogenesis Search Committee.

2) Faculty Position in Immunology. This position is likely to be filled at the Assistant Professor level, but outstanding candidates at the Associate Professor level will also be considered. All areas of immunology will be considered, but individuals working in the area of host responses to bacterial or viral infections will be given preference. Address application to: Chair, Immunology Search Committee.

Send application to: Ms. S. Selby, Department of Molecular Microbiology and Immunology, M616 Medical Sciences Bldg., School of Medicine, University of Missouri-Columbia, Columbia, MO 65212.

The University of Missouri is an affirmative action, equal opportunity employer. Women and members of traditionally under-represented minorities are encouraged to apply.

SENIOR FACULTY POSITION
MOLECULAR PATHOGENESIS
VIRGINIA PROSTATE CENTER

EASTERN VIRGINIA MEDICAL SCHOOL

VIRGINIA PROSTATE CENTER

The Virginia Prostate Center of Eastern Virginia Medical School and the Sentara Cancer Institute invite applications for a tenure track position at the level of Associate Professor or Professor, with a primary appointment in the Department of Microbiology and Molecular Cell Biology. The Medical School and Cancer Institute are undergoing major faculty recruitment to expand and enhance their biomedical research programs. As part of this expansion, we are especially interested in seeking a nationally recognized leader in prostate cancer who would be expected to bring an active research program. The ability to establish basic and translational research collaborations with other faculty in the areas of signal transduction, immunology, and molecular biology, as they apply to the diagnosis and treatment of cancer, is preferred. The successful candidate should have an exemplary publication record, evidence of sustained extramural funding, and documentation of a strong commitment to medical and/or graduate education. Generous start-up funds and laboratory space and a competitive salary will be provided. The successful candidate will also be offered a joint appointment in the Department of Urology. Interested individuals should send their curriculum vitae, a brief statement of major academic/research accomplishments, and arrange to have four letters of reference sent to: **Dr. George L. Wright, Jr., Department of Microbiology and Molecular Cell Biology, Eastern Virginia Medical School, P.O. Box 1980, Norfolk, VA, 23501. Email: wrightgl@evms.edu.** For more information, see **http://www.evms.edu/mirco/index.html** (a link to the Virginia Prostate Center can be found at this site under "Special Programs"). Submit applications by April 28, 2000. *EVMS is an Equal Opportunity/Affirmative Action Employer.*

EXPERIMENTAL PATHOLOGIST
THE CENTER FOR COMPARATIVE MEDICINE
University of California, Davis

Qualified candidates are invited to apply for a professional position at the level of ASSISTANT, ASSOCIATE or FULL PROFESSOR, depending upon qualifications. A research pathologist is sought as a pivotal member of the UC Davis Center for Comparative Medicine, a new research center devoted to the use of animal models for human disease. The Center interdigitates research and teaching programs of the Schools of Medicine and Veterinary Medicine, with close affiliation with the California Regional Primate Research Center, the UC Davis Mouse Biology Program, and the UC Davis Genomics Initiative. Applicants must have M.D. or M.D./Ph.D. degrees. AP boards desirable, but not required. Applicants must have a record of publication that exemplifies enthusiasm for comparative and experimental pathology. Faculty are sought whose research exploits the innovative use of animal models to investigate mechanisms of chronic disease. Desired areas of emphasis include infectious disease, host-agent interactions, viral oncology, functional genomics, and immunology. The candidate must establish and maintain an extramurally funded research program and participate in professional and graduate education with an academic appointment in the Medical School Department of Pathology. This is a tenure-track position in which start-up funding and long-term state-sponsored 1/2 base salary support is provided. Review of applications will commence immediately and will be accepted through June 30, 2000 or until position is filled. Submit applications with letter of interest, curriculum vitae, concise statement of present and future research plans, summary of teaching experience/philosophy, up to 3 representative reprints, and the names of 4 references (including addresses, telephone numbers and e-mail addresses) to: **Murray Gardner, M.D., Search Committee Chair, Center for Comparative Medicine, University of California, Davis, CA 95616**. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

Tenure Track Faculty Positions
MOLECULAR AND CELLULAR BIOLOGY
Eastern Virginia Medical School

EASTERN VIRGINIA MEDICAL SCHOOL

The Department of Microbiology and Molecular Cell Biology invites applications for two tenure track faculty positions at the level of ASSISTANT or ASSOCIATE PROFESSOR. We are particularly interested in individuals whose research focus will complement our existing interdisciplinary research strengths in the areas of cancer biology and molecular virology/immunology. Recruitment efforts will target research in the areas of signal transduction and/or gene regulation, as they relate to molecular mechanisms of pathogenesis. Successful candidates are expected to develop and maintain a productive extramurally funded research program and to participate in medical and graduate student teaching. Excellent laboratory facilities, competitive salaries and attractive start-up packages are available. Interested individuals should send their curriculum vitae, a brief statement of major academic/research accomplishments and the names, addresses and telephone numbers of three references to: **Dr. Timothy Bos, Department of Microbiology and Molecular Cell Biology, Eastern Virginia Medical School, P.O. Box 1980, Norfolk, VA 23501**. (http://www.evms.edu/micro/index.html) For full consideration, application materials should be received by May 1, 2000. *EVMS is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN TOXICOLOGY

The Occupational and Environmental Health Sciences Program at Jefferson Medical College is seeking qualified applicants for a full time academic position at the rank of Professor. A Ph.D. degree, M.D. degree or equivalent is required and there must be substantial evidence of scholarly accomplishments and extramural, peer-reviewed research support. The successful applicant will be named the first Director of a newly created Center for Toxicology, and this person will play a key role in the recruitment of additional faculty. The new Director will join a group of more than 40 scientists, physicians, policy makers and others who are members of a multidisciplinary and multidepartmental group in occupational and environmental health sciences. Special consideration will be given to applicants whose areas of investigation are neurotoxicology, hepatotoxicology, the study of agents that cause cancer, or the study of agents that cause developmental disorders. Funds are available for relocation, laboratory renovation, and equipment. Interested persons should send a curriculum vitae, history or relevant experience, and the names of at least three persons who can provide letters of evaluation. These materials should be mailed to: Lance L. Simpson, Ph.D., Professor of Medicine and Director, Jefferson Occupational Health and Environmental Medical Program, Room 314-JAH, Jefferson Medical College, 1020 Locust Street, Philadelphia, PA 19107. Jefferson Medical College is an affirmative action/equal opportunity employer.

Thomas Jefferson University

CELLULAR OR MOLECULAR NEUROBIOLOGISTS

The Center for Neuroscience, University of California, Davis, seeks applications for a tenure track, Assistant Professor position in Cellular or Molecular Neuroscience, starting in the Fall of 2000. Ph.D. or M.D. required. We are particularly interested in candidates whose research is in the fields of receptor signaling and regulation of gene function in the adult or developing nervous system.

The Center, housed in three research buildings and currently home to a large group of Systems/Cognitive neuroscientists, is continuing a new phase of expansion in which it expects to appoint an equivalent number of Cellular and Molecular neuroscientists. The successful candidate will have space and facilities in the Center and a primary appointment in the Department of Psychiatry, of the UC Davis School of Medicine. The successful applicant will be eligible to become a member of the multidisciplinary Graduate Program in Neuroscience and will be expected to develop an active funded independent research program.

Please send a curriculum vitae, statement of research interests and the names of at least three persons from whom references will be obtained to **Dr. Edward G. Jones, Director, Center for Neuroscience, University of California, Davis, Davis, CA 95616**. Positions open until filled, but applications should be received no later than March 31, 2000. *The University of California is an Equal Opportunity Employer.*

Center for Neuroscience

University of California, Davis

Department of Microbiology and Molecular Genetics
Faculty Position in Virology/ Bacterial Pathology/ Immunology

Candidates are invited to apply for a tenure-track Assistant Professorship; outstanding candidates of higher rank will also be considered. Investigators interested in the interface of viral or bacterial pathogens with their mammalian hosts are encouraged to respond. We are particularly interested in scientists whose research touches on the mechanisms by which pathogens (i) manipulate the innate or acquired immune response or (ii) alter the biology of the infected cell.

The Department is under vigorous new leadership and has entered a period of expansion which is complemented by college-wide initiatives in human and molecular genetics and cancer research. The successful applicant will join a collegial group of interactive, well-funded and productive investigators and will be expected to establish a strong, independent research program and participate in graduate and medical student teaching. Competitive salary support, start-up funds and renovated laboratory space will be provided; state-of-the-art core facilities are available. A PhD and/or MD degree and post-doctoral experience are essential. Applications will be considered as they arrive but must be received by March 31, 2000; applicants should submit a *curriculum vitae*, statement of research interests, and the names of three references to:

Dr. Paula Traktman, Chairman, Dept. of Microbiology and Molecular Genetics, Medical College of Wisconsin, 8701 Watertown Plank Rd., Milwaukee, WI 53226.
http://www.mcw.edu/microbiology EEO/AA/M/F/D/V

FACULTY POSITIONS
Department of Immunology
University of Washington

The University of Washington seeks highly qualified applicants for tenure-track appointments in the Department of Immunology. Applicants must hold Ph.D. or M.D. degrees, have a superior record of published research in immunology and skills that will allow them to teach effectively at the graduate level. Although the emphasis will be placed on recruiting assistant professors to the department, outstanding applicants at the associate and full professor levels are encouraged to apply. The Department of Immunology offers excellent laboratory space, flow cytometry, confocal microscopy, and transgenic animal facilities, and access to contemporary analytical tools to address complex systems at the genetic and protein level. Send curriculum vitae, a brief description of proposed research, and names and addresses of three references (by May 1, 2000) to:

Dr. Christopher Wilson
Chairman, Department of Immunology
Campus Box 357650
University of Washington
Seattle, WA 98195-7650

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OLD DOMINION UNIVERSITY
DEAN
COLLEGE OF SCIENCES

General Description

As the chief academic officer of the College, the Dean is responsible for all instruction, research, and public service programs within the college. The Dean reports to the Provost and Vice President for Academic Affairs.

Institutional Context

Old Dominion University is a state-assisted, doctoral-granting institution which enrolls over 18,000 students, including 6,000 graduate students. The University is located in Norfolk, one of seven cities making up the Hampton Roads region of Virginia, a major seaport and recreation area with a population in excess of 1.4 million people. The Norfolk Naval Base, the largest naval base in the world, is three miles from the campus. Major federal research installations that focus upon space, aeronautics, oceanography, and nuclear physics are nearby.

The College of Sciences offers degrees in the areas of Biological Sciences, Chemistry and Biochemistry, Computer Science, Geological Sciences, Mathematics and Statistics, Oceanography, Physics, and Psychology. The College offers a wide range of undergraduate and graduate programs, including doctoral programs in nine areas. A full-time faculty of 162 expended over $10.6 million of external research funding during fiscal year 1999.

Responsibilities

The Dean is expected to provide dynamic leadership in teaching, research, and professional service. The person selected should be able to stimulate a collegial, intellectual environment, promote the continued development of nationally recognized research programs, and work productively with faculty, staff, and students. The Dean should be able to represent the College within the University and the professional community as well as to outside agencies and the general public.

Qualifications

The successful candidate will have an earned doctorate, a record meriting appointment as a full professor in a department of the college, and administrative experience at the level of academic department chair or the equivalent. Candidates must have a strong commitment to academic excellence and an ability to work with diverse constituencies.

Applications/Nominations

Application materials, including a resume and the names, addresses, and telephone numbers of five references, should be sent to:

College of Sciences Dean Search Committee
c/o Office of Academic Affairs
Old Dominion University
Norfolk, Virginia 23529-0011
Phone: (757) 683-3260; Fax: (757) 683-3004
Email: jbowman@odu.edu
Old Dominion University web address: web.odu.edu

Initial screening of applicants will begin March 15, 2000, but applications will be accepted until the position is filled.

Old Dominion University is an Affirmative Action Equal Opportunity Employer and complies with the Immigration and Naturalization Act of 1986.

Cuyahoga Community College

Anticipate an exciting future at **Cuyahoga Community College**, a 2-year institution with three modern campuses. Nationally recognized as a leader in innovation, technology and workforce development, the college is a co-founder of the prestigious League for Innovation, a consortium of the country's most technologically advanced and innovative two-year colleges.

Dean, Health Careers/Science

Cuyahoga Community College is seeking innovative leadership to manage and direct the Health Careers and Natural Science programs at the Western Campus. The Western Campus has a current enrollment of 10,000 students and is the largest of three Campuses within the College District.

The selected professional will administer Allied Health programs, Physical and Life Sciences, Physical Education, and Early Childhood Education programs, while developing, reviewing, and evaluating academic area plans, curriculum, budgets and resources. Evaluate managers, faculty, laboratory, and office personnel.

Required qualifications: a master's degree in allied health, nursing, or related science discipline; demonstrated success in higher education academic administration at the departmental level or higher; proven commitment to student success, faculty development, and outcome-based education; and a sensitivity to the needs of a multicultural and diverse population.

Preferred qualifications: a doctorate degree; experience with health career accreditation processes and grant writing; teaching experience at the college level; demonstrated experience in budget management, continuous quality improvement, community outreach, resource development; and familiarity with the application of technology to improving teaching and learning.

The College offers an excellent compensation and benefits package. **Application review will begin February 25, 2000. This search will remain open until filled.**

Interested applicants should submit a cover letter summarizing their qualifications for this position, a current resume, photocopies of transcripts for earned degrees, a list of three employment references (names, titles, addresses, and telephone numbers of current/former supervisors) and a completed employment application. The application will be forwarded with a letter acknowledging receipt of application materials. Submit application materials to: **Director-Staffing-SC, Human Resources, Cuyahoga Community College, 700 Carnegie Avenue, Cleveland, OH 44115.** Application materials can be faxed to: **(216) 987-4799.**

Cuyahoga Community College vacancy notices are available on the HR Tri-C Job Line: (216) 987-4771 and the College's Web site: www.tri-c.cc.oh.us/district/index.htm.

Affirmative Action/Equal Opportunity Employer M/F/D/V

Colorado State University

Invites applications/nominations for the position of

Vice President for Research & Information Technology (VPRIT)

VPRIT reports directly to the President/Chancellor of the CSU System. As institutional advocate/facilitator for faculty research activities, responsible for programmatic excellence in research and its integration into graduate and undergraduate learning consonant with Land Grant mission and status as a Carnegie Class I Research University; also oversight of Graduate School, planning and administration of Information & Instructional Technology (IIT) Programs; legislative liaison; technology transfer; proactive promotion of diversity. Available August 1, 2000.

Qualifications: PhD/eligibility for academic tenure. Record of scholarly accomplishment, funded research, graduate student advising, administrative experience (Department Head or equivalent level), achievement of diversity goals. Familiarity with utilization of IIT desirable.

Application deadline: March 24, 2000.
Details available:
http://www.research.colostate.edu/vprit/posannounce.pdf
E-mail: SPC@research.colostate.edu
Voice: 970/491-7194 Fax: 970/491-5541

CSU is an affirmative action, equal opportunity employer.

University of Minnesota UMD Duluth

ASSISTANT / ASSOCIATE PROFESSOR FISHERIES BIOLOGIST

The Department of Biology, University of Minnesota-Duluth (www.d.umn.edu/biology) seeks applications for a tenure-track Assistant or, under exceptional circumstances, Associate Professor in Fisheries Biology beginning 1 September 2000. Expectations of the successful candidate include research in the general area of fisheries biology, teaching introductory and advanced courses, student advising, and service. Essential qualifications include a terminal degree in the biological sciences and evidence of potential for achievement in teaching and research, including excellent oral and written communication skills and senior authorship of at least one peer-reviewed paper. Send: letter of application with three letters of reference and the names, postal and e-mail addresses, and phone numbers of 2 additional references; curriculum vitae; statements of teaching and research experience, interests, and philosophy; copies of up to 5 of your most significant publications; and unofficial transcripts or a list of relevant courses to **Dr. Andrew Klemer, Fisheries Biologist Search Committee Chair, Department of Biology, University of Minnesota-Duluth, Duluth, MN 55812.** Review of completed applications will begin on 15 March 2000 and will continue until the position is filled. The University of Minnesota is an equal opportunity educator and employer.

Molecular & Developmental Biology of Cartliage and Bone

Assistant Professor

The Department of Molecular Genetics and the Department of Biochemistry and Molecular Biology are jointly recruiting a tenure-tract Assistant Professor to establish a vigorous research program in the area of skeletal biology and development. Individuals working in the areas of organogenesis of the vertebrate skeleton, and on mechanisms that control cell fate and differentiation of the constituent cells of cartilage and bone are encouraged to apply. Both departments have strong ongoing programs in other aspects of developmental biology and molecular biology. Major opportunities exist also for interactions with scientists who are exploring biology of bone metastasis. We offer a highly attractive recruitment package, an active graduate and postdoctoral training program and the unmatched scientific environment of the Texas Medical Center. Applicants should hold a Ph.D. and/or M.D. and be able to demonstrate their potential as independent scientists. Those interested should send a curriculum vitae, a two-page research summary and the names and addresses of at least three references before April 15, 2000 to:

Guillermina Lozano, Ph.D.
Chair of the Search Committee
Department of Molecular Genetics, Box 11
The University of M.D. Anderson Cancer Center
1515 Holcombe Blvd., Houston, TX 77030

MDACC is an Equal Opportunity Employer, smoke free environment.
Women & minority candidates are encouraged to apply.

THE UNIVERSITY OF TEXAS
MD ANDERSON
CANCER CENTER

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL

Faculty Positions - Immunity and Tolerance

Department of Medicine

The Department of Medicine at the University of Massachusetts is seeking research scientists who work in the areas of host defense, tolerance, and auto-immunity. Scientists at the Assistant, Associate, and Professor level, working on basic mechanisms related to microbial pathogenesis as well as the basis of tolerance and auto-immune disease are encouraged to apply.

Generous start-up packages, space in a new state of the art research building, and long-term salary support will be offered to outstanding scientists (M.D.s or Ph.Ds) who are expected to develop their own laboratory research programs and teach. The University of Massachusetts is an affirmative action/equal opportunity employer with a strong commitment to fairness and diversity; accordingly, U Mass actively seeks and encourages applications from all individuals; independent of gender, race, ethnicity, culture, sexual orientation, age, or disability.

Applicants for these tenure-track positions are requested to send a curriculum vitae, bibliography, names of 3 references, and statement of research interests to:

Robert Finberg, M.D.
Chair, Department of Medicine
University of Massachusetts
Medical School
55 Lake Avenue North
Worcester, MA 01655

RESEARCH POSITIONS AT THE SCRIPPS RESEARCH INSTITUTE

We are recruiting Ph.D.'s & M.D.'s to participate in NIH-funded research projects relating to the cellular and molecular mechanisms underlying transbilayer movement of phosphatidylserine and other plasma membrane phospholipids in apoptotic or immune injured cells. Projects include investigation of transcriptional regulation, molecular structure, and function of phospholipid scramblase and other phospholipid transport proteins, and analysis of knockout mice. Expertise in either molecular and cellular biology, animal physiology, protein chemistry, or structural biology desired. Interested individuals are invited to visit our website **http://www.scripps.edu/mem/biochem/Sims/.**

Letters of interest along with curriculum vitae and references should be sent to:

Peter J. Sims, M.D., Ph.D.
Professor
Dept of Molecular & Experimental Medicine, MEM-275
The Scripps Research Institute
10550 North Torrey Pines Road
La Jolla, CA 92037
email: psims@scripps.edu

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SCIENTIST
PROTEIN CHEMISTRY

We are seeking an experienced protein chemist to assist in the development of protein-based therapeutics. The successful candidate will perform structure-activity studies on interferons, members of the TGF-beta family, and other proteins of therapeutic interest, working as part of a team to develop novel drugs. As part of this project team, efficient interaction with molecular biologists, analytical protein chemists, and members of product development, preclinical research, quality control, and regulatory groups will be essential to provide protein chemistry support and continuity throughout the life of the project. Extensive hands-on experience with the purification and characterization of purified proteins, and experience with diverse modification chemistries is absolutely essential. Demonstrated ability to relate biochemical characteristics of proteins and small peptides to their activity and experience with the design and execution of cell or protein interaction-based activity are desired. The ideal candidate will have a PhD with 3+ years post-doc and/or industry experience. SOURCE CODE: RC-TS

SCIENTIST
MOLECULAR GENETICS

This person will be responsible for initiating and conducting applied research to generate and develop engineered antibodies and immunoadhesins as therapeutics. The successful candidate will have a strong scientific research record, excellent communications skills, extensive molecular biology bench-level experimental skills, and the ability to work independently as well as cooperatively within multidisciplinary teams. Responsibilities will also include gene cloning, expression vector design and construction, and mammalian cell expression of recombinant proteins. Requires a PhD and a minimum of 2-3 years of post-doc or industrial experience in molecular biology, cell biology or immunology. SOURCE CODE: RC-EG.

Let yourself be attracted to the intelligence at Biogen. We have one of the strongest financial profiles in the industry and our compensation and benefits package, including equity participation, is unmatched. For consideration, please forward your resume, indicating Source Code, to: Biogen, Inc., Attn: Human Resources, Source Code:____, 14 Cambridge Center, Cambridge, MA 02142; Fax: (617) 679-2546; Email: resumes@biogen.com (Source Code ONLY must appear in the email subject line). Biogen is an Equal Opportunity Employer. No phone calls, please.

The innovative R&D work we do at Bristol-Myers Squibb Pharmaceutical Research Institute is enhancing the lives of people everywhere under the stars. Your contribution could make all of the difference in the world to our efforts to reshape the drug discovery and development process.

Our work has

Immunology, Inflammation and Pulmonary Diseases

Princeton, NJ

Molecular Biologist: M.S./B.S. with 5 years of laboratory experience to work on nuclear hormone receptors. Background in immunology with some drug discovery experience highly desired, plus strong knowledge of cell biological techniques and transfection procedures. **Code: PRSM152SN**

Preclinical Research Scientist: Ph.D. with 5+ years postdoctoral experience in Immunology/Inflammation research and strong skills in cellular biology to identify, characterize and develop novel therapeutic targets. Focus is on cell adhesion. Additional skills in biochemical characterization and development of in vitro assays required. **Code: PRSM152DH**

Metabolism and Pharmacokinetics

Princeton, NJ

Research Scientist: B.S./M.S. degree in Pharmacokinetics, Biochemistry, Pharmacology or Analytical Chemistry with 1-4 years related work experience in performing and reporting pharmacokinetic and metabolism studies of potential drug candidates in vivo, developing and applying appropriate analytical methods to quantitate drug and metabolites in biological samples. **Code: PRAF152CH**

Clinical Pharmacology

Princeton, NJ

Clinical Research Scientist: Pharm.D./M.S. with 3+ years experience in clinical pharmacology/early clinical drug development. Requires scientific writing skills, and experience designing, implementing, and conducting clinical pharmacology studies for investigational new drugs within a variety of therapeutic areas. **Code: PRRR152NF**

Oncology Drug Discovery

Princeton, NJ

Cancer/Endocrine Biologist: Ph.D. with minimum of 1-2 years of industrial/ 6 years postdoctoral experience in the research of the biology of nuclear hormone receptors and/or mechanisms of transcriptional control using both molecular and biochemical approaches. Depth and experience in cancer biology, particularly endocrine-related cancers of the breast and prostate. **Code: PRAF152MG**

Microbiology

Wallingford, CT

Senior Research Investigator: Ph.D. in Microbiology, Molecular Biology or Biochemistry with 2+ years in a clinical microbiology laboratory required. Candidate will oversee microbiology support for anti-infective clinical trials, collaborate with research groups to develop/conduct studies to characterize drug candidates, and set-up molecular assays for bacterial speciation/strain differentiation. **Code: PRMA152JFT**

Macromolecular Structure & Biopharmaceuticals Analytical R&D

Syracuse, NY

AR&D provides "state-of-the-art," in-depth, analytical characterization of recombinant and natural protein products through the entire development process from discovery through registration and launch. Successful candidates will demonstrate the ability to thrive in a highly collaborative multidisciplinary team environment to further develop biopharmaceuticals in today's highly competitive, complex and dynamic marketplace.

Sr. Research Investigator/Group Leader: Ph.D. in Immunology, Cell Biology, Biochemistry or Molecular Biology with 5-10 years industrial experience in immunology, cell biology, and bioanalytical techniques including immunoassays (ELISA, BIAcore, IGEN), cell-based bioassays (proliferation, cytotoxicity), electrophoresis (SDS-PAGE, IEF, Western) molecular biology. Requires experience with automated systems and GLP/GMP regulations. **Code: PRTM152RD4**

Associate Research Scientist: B.S. in Cell Biology, Biochemistry or Molecular Biology with 3-5 years experience preferred. Proven experience in laboratory techniques used in mammalian cell culture and bioassay development, cellular biochemistry, microbiology (endotoxin) cGMP/cGLP regulations. **Code: PRTM152RD1**

Assistant Research Scientist: B.S. in Cell Biology, Biochemistry or Molecular Biology with 0-2 years experience. Familiarity with laboratory techniques used in mammalian cell culture, molecular biology and cellular biochemistry required. Experience with cGMP/cGLP regulations is desired. **Code: PRTM152RD5**

Sr. Research Investigator: M.S. with 7-12 years experience or Ph.D in Chemistry or Biochemistry with 5-7 years experience. Must have proven experience in liquid chromatography/mass spectrometry (LC/MS) and strong structure elucidation skills applied to the characterization of proteins and peptide biologics. **Code: PRTM152RD2**

Research Scientist (2 positions): M.S. in Chemistry or Biochemistry with 4-6 years experience, or Ph.D in Chemistry or Biochemistry with 0-3 years experience. Experience in ion trap, quadrapole and laser desorption time of flight (MALDI-TOF) mass spectrometry (MS) and strong structure elucidation skills applied to the characterization of proteins and peptide biologics required. Liquid chromatography experience desired. **Code: PRTM152RD3**

Assistant Research Scientist: B.S./M.S. in Chemistry or Biochemistry with 3-5 years experience; M.S. with 1-3 years experience preferred. Requires experience in analytical chromatography including SEC, IEC, Affinity and RP-HPLC of natural and recombinant proteins and polypeptides, and experience with analytical techniques for analysis structural characterization including carbohydrate profiling, translational modifications. **Code: PRTM152RD5**

GLP/GMP Compliance/Validation Coordinator: B.S. in Biology, Chemistry or Biochemistry with 3-5 years experience in GLP/GMP regulations, in addition to strong technical writing skills. **Code: PRTM152LS**

Systems Analyst: B.S./M.S. in Electrical/Mechanical/Biochemical Engineering with 2-7 years of experience; M.S. with 0-4 years experience preferred. Background in biochemical sciences is required along with knowledge of analytical instrumentation and data acquisition. Requires knowledge of the following: Visual Basic, Object Oriented Design, Database Management Systems, Unified Modeling Language, Distributed Component Object Model, and Programmable Logic Controllers. Some travel required between BMS sites. **Code: PRTM152DT**

far-reaching effects.

Macromolecular Structure & Biopharmaceuticals Analytical R&D

Princeton, NJ

Group Leader: Ph.D. in Chemistry, Analytical Chemistry or Biochemistry with 8-10 years experience in the application of mass spectrometry and/or other physical characterization methods for the analysis of biopharmaceuticals. Requires experience in leading a multi-disciplinary analytical team and proficiency in MS/MS, LC/MS, NMR, HPLC, and capillary electrophoresis. Experience in ion trap, quadrapole and laser desorption time-of-flight mass spectrometry instrumentation, and application of tandem mass spectrometric techniques for biomolecule structure analysis desired. GLP/GMP compliance experience is a plus. **Code: PRMS152KL1**

Sr. Research Investigator/Group Leader: Ph.D. in Chemistry or Biochemistry with 5-10 years of experience with protein products using wide variety of chromatographs and electrophoresis, including CE techniques. Significant experience in characterization of highly glycosylated proteins is essential. **Code: PRMS152KL3**

Research Investigator: M.S./Ph.D. in Chemistry or Biochemistry with 7-10 years experience, Ph.D. with 2-5 years preferred, in analytical chromatography including HPLC, and LC/MS in natural and recombinant proteins and polypeptides. Experience with analytical techniques for analysis of carbohydrate structure, and other post-translational modifications. **Code: PRMS152YW**

Research Investigator: M.S./Ph.D. in Chemistry or Biochemistry with 7-10 years experience, Ph.D. with 2-5 years preferred. Requires experience in analytical capillary electrophoresis of natural and recombinant proteins and polypeptides in addition to experience with analytical techniques for analysis of carbohydrate structure, and other post-translational modifications. **Code: PRMS152JL**

Associate Research Scientist/Research Scientist: B.S./M.S./Ph.D. in a related discipline, a minimum of 5 years experience in flow cytometry, and familiarity with basic immunology and cell biology. Experience with developing and performing multi-parameter analysis, sterile cell sorting and data reduction on a variety of cell types required. **Code: PRMS152CK**

Sr. Outsourcing Manager: B.S./M.S./Ph.D. in Immunology, Cell Biology, Biochemistry, or Molecular Biology with business emphasis and 5-10 years experience in pharmaceutical development environment. Requires strong financial/analytic skills, and experience in negotiations and cost assessments for coordination of pharmaceutical resource management. **Code: PRMS152KL2**

Applications Engineer: B.S./M.S. in Computer Science/Computer Engineering with 2-7 years experience. Application development experience with Visual Basic/C++/Visual C++ on Win 32 platform required. Knowledge of the following required: Object Oriented Design, developing applications for Database Management Systems including MS Access, SQL Server, Oracle, Programmable Logic Controllers, Unified Modeling Language and MS Distributed Component Object Model. Java and/or ASP a plus. **Code: PRMS152DT**

Metabolic and Cardiovascular Drug Discovery

Princeton, NJ

Sr. Cardiovascular Electrophysiologist: Ph.D. and/or M.D. with 2+ years postdoctoral research experience, 3 years experience in a pharmaceutical discovery environment and cardiovascular physiology and pharmacology. Training in both in vitro (tissue, isolated organ) and in vivo cardiac physiology, and experience in electrophysiological, mechanical and biochemical aspects of cardiac muscle physiology in the development of both in vitro and in vivo models useful for drug discovery. Practical experience with techniques such as: conventional microelectrode recording, isometric tension recording, electrocardiogram and monophasic action potential recording required. **Code: PRAF152MB1**

Associate Electrophysiologist: B.S./M.S. with 2+ years experience in an industrial or academic research environment. Training in electrophysiology utilizing both tissue and isolated organ preparations required. Practical experience with various cardiac electrophysiological and mechanical recording techniques desired. **Code: PRAF152MB2**

Sr. Research Investigator Pharmacologist/Physiologist: Ph.D. or M.D. with 5+ years postdoctoral experience and demonstrated ability to establish animal models to study the basis of various metabolic diseases including diabetes, obesity and/or dyslipidemia and to evaluate novel therapeutic agents in these models. Excellent managerial skills are required. **Code: PRAF152JW1**

Research Scientist Pharmacologist/Physiologist: B.S./M.S. with 4+ years experience and strong understanding of physiology and pharmacology. Extensive experience in dosing animals, and analyzing tissue samples using various biochemical, immunological, and molecular biology approaches for tracking the metabolic effects of the therapeutic agents required. Proficiency in data collection and analysis tools/methods is essential. **Code: PRAF152JW2**

For Princeton positions, send resumes to:
Bristol-Myers Squibb Company
Pharmaceutical Research Institute
P.O. Box 4000, Princeton, NJ 08543-4000
Fax: (609) 581-8841

For Syracuse positions, send resumes to:
Bristol-Myers Squibb, Human Resources
P.O. Box 4755, Syracuse, NY 13221

For Wallingford positions, send resumes to:
Bristol-Myers Squibb, Pharmaceutical Research Institute
P.O. Box 5101, 5 Research Parkway
Wallingford, CT 06492-7661. Fax: (203) 677-7762

Bristol-Myers Squibb uses resume-scanning technology. Please submit resumes, including Code #, to the appropriate address. Resumes should be printed on plain white bond paper using standard type and fonts (no italics, graphics or staples please).

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Research Grants for the 21st Century

The American Cancer Society, the largest private, not-for-profit funding source for cancer research, is expanding its commitment to support gifted and innovative investigators in the field of cancer research. Beginning in the year 2000, two new research grants, with increased funding and extended grant periods, will replace the former Research Project Grants:

Research Scholar Grants for Beginning Investigators

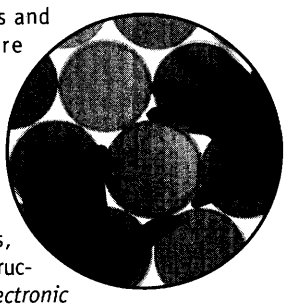
Offer funding up to $250,000 a year for a period of four years, renewable for an additional four years. These grants support basic, preclinical, clinical, cancer control, health services, health policy, or epidemiologic research projects initiated by investigators in the first eight years of their independent research careers.

Research Scholar Grants in Psychosocial and Behavioral Research

Provide up to $500,000 per year for five years with optional renewal for an additional five years. These grants support research projects centered on the psychosocial and behavioral aspects of cancer and are for investigators at any stage of their careers.

DEADLINES: APRIL 1 AND OCTOBER 15

ELIGIBILITY: US citizens and permanent residents are eligible for these grants.



The American Cancer Society also offers several other research and training grants. For full descriptions of these and other grants, eligibility requirements, instructions, and applications *(electronic applications now available!)*, please visit the American Cancer Society web site. Click on "Research Program" to link to grants information.

www.cancer.org
Email: **grants@cancer.org**
Or call **404-329-7558**

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- **Immunologists**
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- **Biochemists**
- **Exipient Chemists**
- **Synthetic Organic Chemists**
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- **Regulatory Liaisons**
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- **Statisticians**
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Please visit us at the AAAS Science Career Fair on February 21 in Washington, DC.

We offer an excellent salary and comprehensive benefits program, including tuition reimbursement and one of the best 401(k) plans in the nation, as well as opportunities for personal growth. Please submit your resume, official transcript, the names of 3 references, and a cover letter indicating salary requirements and your position of interest, to: **Merck Positions, PAF Code: XHXMRSMKH21100, P.O. Box 92164, Los Angeles, CA 90009-2164. E-mail: merck@isearch.com Fax: (310) 337-3393.** These positions are not in Los Angeles. Only candidates considered for interviews will receive responses. No phone or agency calls please.

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Founded in 1988, Regeneron has established itself as a leader in the application of molecular and cell biology to the discovery and development of novel human therapeutics. Using our expertise in growth factors and their mechanisms of action, we've made impressive progress toward developing protein-based drugs for a number of important medical conditions.

At Regeneron we see our people as our most valuable asset. We provide you with the opportunity and the resources you need to take on some of the most challenging problems in biological research in a creative, supportive environment.

Our unprecedented growth has created several exceptional career opportunities:

SCIENTISTS
- **Protein Purification Development**
- **Discovery**
- **Angiogenesis**
- **Toxicologist**
- **Eye/Eye Angiogenesis**

RESEARCH ASSOCIATES
- **Protein Sciences**
- **Neural & Endocrine Biology**
- **Molecular Screening**
- **Formulation/Protein Biochemists**
- **Molecular Biology**
- **Pre-Clinical Development**

PROGRAM MANAGEMENT
- **Technology Transfer Administrator**
- **Program Coordinator**

QUALITY ASSURANCE/ REGULATORY AFFAIRS
- **Validation Specialist**

INFORMATION TECHNOLOGY
- **Oracle DBA/Financials Administrator**
- **Scientific Applications Developer**

ADMINISTRATION
- **Accounts Payable Clerk**
- **Purchasing Assistant**

ADDITIONAL OPPORTUNITIES
- **Patent Counsel**
- **Imaging Specialist**
- **P/T Lab Assistant**

Not only do we offer a remarkable environment that produces world-class science, but we also provide our people with an excellent benefits package including:

- Medical, Dental, Vision & Prescription Drug Coverage
- Vacation & Personal Days as well as Paid Holidays
- 401(k) Savings Plan with Company Match
- Tuition Reimbursement
- Stock Options
- Short & Long Term Disability Plans
- Life Insurance
- Flexible Spending Account for Healthcare & Dependent Care Reimbursement
- Direct Payroll Deposit
- Business Travel Accident Insurance

For more information about Regeneron and these career opportunities, please visit our website:

www.regeneron.com

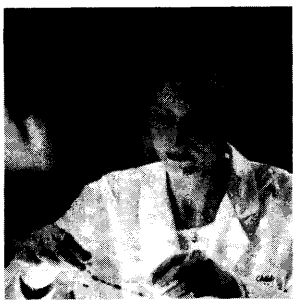
Regeneron Pharmaceuticals, Inc.

777 Old Saw Mill River Road, Tarrytown, NY 10591
Fax: (914) 345-7790 E-mail: jobs@regpha.com

(Please provide an electronic version of your resume or C.V. as text or PDF)

EOE M/F/D/V

Expanding the Powers of Research



St. Jude Children's Research Hospital is an Internationally renowned research and treatment center for children with catastrophic diseases – primarily pediatric cancers. The scientists at St. Jude are committed to biomedical research that seeks to understand the molecular causes of disease, improving diagnosis and treatment, minimizing immediate and long-term side effects, and ultimately – to finding a cure for those diseases. We have recently embraced a 5- year, $1 billion dollar expansion project to support our continuing research. This expansion brings new and exciting career opportunities for motivated professionals in the following areas:

- **Research Technologists**
- **Senior Research Technologists**
- **Research Lab Specialists**

St. Jude is located in Memphis, Tennessee, a city rich in history and culture stretching from the banks of the mighty Mississippi to the rolling green hills of eastern Shelby county. To learn more about St. Jude, the positions we have available and our home in Memphis, please visit our web site. For immediate consideration, e-mail, fax or mail your resume to:

St. Jude Children's Research Hospital
Human Resources Department
332 North Lauderdale
Memphis, TN 38105
E-mail: virgil.holder@stjude.org
Fax: 901-495-3123

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

www.stjude.org/hr

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Photo courtesy of St. Jude Biomedical Communications Department.

POST-DOCTORAL APPOINTEE Biological Science

Argonne National Laboratory, one of the nation's premier energy research and development organizations, is located just 20 miles southwest of Chicago. We currently offer an exceptional opportunity for a highly motivated self-starter with strong laboratory skills.

Working with the Group Leader for Biocatalytic Technologies, you will be involved with research pertaining to pathway engineering, enzymology, fermentation and biocatalyst design; developing mixed fermentation systems, cofactor immobilization and multi-enzyme arrays; and developing candidate enzymes for environmental samples. This position will involve frequent interactions with scientists and engineers throughout the Laboratory.

The ideal candidate should have a Ph.D received not more than 3 years prior to the start date of the appointment in biochemistry, microbiology or similar field with up to 2 years' lab experience. Background should include enzyme modification and gene extraction. Strong analytical, technical writing and communication skills are critical. Knowledge of safety procedures and use of molecular biology/microbiology laboratory equipment essential.

For consideration, please send a detailed resume and the names and addresses of three references to: **Janice Buckley, Employment and Placement, Box ESBIO-43, Argonne National Laboratory, 9700 S. Cass Avenue, Argonne, IL 60439. Fax: 630-252-9388 TDD: 630-252-7722**

Argonne is an equal opportunity employer. For additional information or to submit your resume, please visit our website at http://www.hr.anl.gov/employment.htm.

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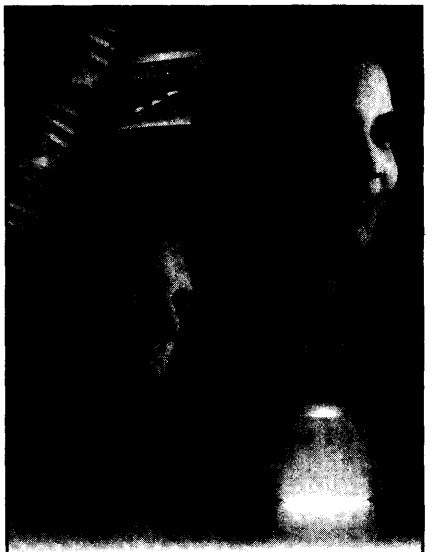

The Face *of* Pfizer

Pfizer Central Research is the R&D division of Pfizer Inc, a global, research-based pharmaceutical company at the forefront of a dynamic, rapidly growing industry. We're known for both our unparalleled drug development pipeline and the respect and resources we give to our people. If that appeals to you, maybe yours could be the new Face of Pfizer. Join us in the following opportunity at our Central Research facility in Groton, Connecticut.

SR. RESEARCH SCIENTIST - BIOLOGY

In this position within our Animal Health Vaccine group, you will apply your biochemistry expertise to advance development of prototype vaccines and biotherapeutics. You'll also be responsible for coordinating the day-to-day operations of a team of biochemists who interface with project teams and development customers. This key position requires a PhD in Biochemistry (or equivalent training) and 8-10 years postdoctoral experience; 2-5 years veterinary vaccinology experience desired. Also desirable is industry experience in a protein purification group conducting vaccine activities, including multiple protein expression systems (*E. coli*, baculovirus, mammalian, yeast), multiple chromatography systems (sizing, HPLC, hydrophobic, affinity, reverse-phase), and protein refolding techniques.

We encourage all candidates to apply online through our web site at www.pfizer.com. If necessary, you may also mail your resume, indicating job title and appropriate Ad Code, to: Pfizer Inc, Central Research, Ad Code 0000581SCI, c/o Aon Consulting, P.O. Box 25, Findlay, OH 45839. Pfizer is an equal opportunity employer.

Pfizer Central Research
Life is our life's work.

Growing Amazement

Cereon Genomics' mission is to apply genomics technology to transform agriculture ... making plants hardier, naturally disease and pest-resistant, able to grow in some of the most inhospitable conditions. All to improve the quality and quantity of the world's food supply.

In the past two years, we've taken major steps towards achieving that mission by:

- Creating a world class facility
- Implementing a highly advanced sequencing operation
- Acquiring the latest state-of-the-art equipment
- Identifying key projects in genomics, bioinformatics, and robotics
- Bringing together a team of exceptional professionals at all levels

It is with growing amazement that we realize what we have accomplished ... and what is still left to do. That's why we seek more innovators with a focused sense of urgency and a healthy sense of wonder to join us, keep our impressive momentum going, and make the future of genomics technology happen!

Leader, Transcription Profiling

Build and lead a transcription profiling core production team capable of delivering large quantities of high quality data to customers throughout the company. This group will be responsible for array element production, array printing, probe production, hybridization, data collection and primary analysis. A key focus will be the development of stringent QA/QC processes for both internal work and external suppliers to enable the creation of robust reference databases of gene expression patterns. This leader will communicate across the enterprise to ensure appropriate knowledge and understanding of Cereon capabilities and will manage prioritization of projects and workflow. Background in process engineering and extensive experience in management of a high throughput genomics lab are desired; a Ph.D., Engineering degree, or equivalent experience expected. **Job Code: 7200-17S**

Ph.D. Analytical Chemist - LC/MS and LC/MS/MS position

Our High Throughput Analytics Dept. has an opening for a Scientist with a Ph.D. degree in Analytical Chemistry or relative field. Interact and collaborate with multidisciplinary project teams to provide high throughput LC/MS and LC/MS/MS support for genomic research. The qualified candidate should have hands-on experience with sample extraction from biological matrix as well as with performing qualitative and quantitative LC/MS and LC/MS/MS analysis. The successful candidate must have strong background in HPLC separation and mass spectrometry to conduct method development of LC/MS and LC/MS/MS using biological samples. Good organizational and communication skills, creativity and initiative are required. Understanding of biochemistry and mass spectrometric interpretation is highly desirable. Familiarity with Micromass mass spectrometers is a plus. **Job Code: 7300-04S**

Computational Biologist - Bioinformatics

Applicants should have a Master's or Ph.D. in Biology or related field, and have a proven ability analyzing large volumes of biological data using computational approaches. Programming (Perl, C, Java) and database (relational, SQL queries) experience is desirable, but not essential. The successful candidate will have a desire to explore biology using a multifaceted bioinformatic approach, along with close interactions with Bench Scientists. You should also possess good organizational and communication skills, exhibit creativity and initiative, and enjoy working in a multidisciplinary team environment. **Job Code: 7100-33S**

Genetics Researcher (Genome Subtraction)

Candidate must understand PCR, Column Chromatography & Genome Fractionation. Position requires a Master's degree (or equivalent) in Molecular Biology, Biochemistry, Genetics, or other relevant field, together with at least 1-6 years' experience. **Job Code: 7999S**

Research Associate(s) & Lab Technician(s) II - TxP

All positions require a BS/MS, a strong background in molecular biology or nucleic acid chemistry, and the proven ability to work independently and collegially as part of a team of Scientists. Experience with laboratory automation and computer equipment is important. Familiarity with biochemical pathway analysis or gene discovery would be valuable. Staff positions require 1-3 years' research, development, or production experience. Senior positions require at least 3-5 years' R&D or manufacturing experience. **Job Code: 7200-10S**

Statisticians - QTL Cloning

Data Analyst - Marker Development

For complete details on above two positions, please visit our Web site.

Please send your resume, indicating Job Code, to:
Attn: Recruiter, Cereon Genomics, LLC
45 Sydney St., Cambridge, MA 02139
Fax: (617) 551-1990

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Transforming Agriculture To Meet The World's Food Needs

Awards

S. T. Li Prize for the Achievement in Science and Technology Call for Nominations

The S. T. Li Prize is established to recognize the achievements of distinguished scholars in science and technology. The work being honored should have been published in peer reviewed journals during the last five years.

The S. T. Li Prize in 2001 includes a one-time unrestricted research grant of $35,000. The Prize will be awarded to one nominee. The research grant shall be used to support a current or a future research project. Such a project must comply with all federal and state laws and regulations. As a condition to accept the Prize, the awardee shall agree that (1) if any publications result from the research, the support of S. T. Li Foundation shall be appropriately acknowledged, and (2) the awardee's name, photo, biography and accomplishments may be used in S. T. Li Foundation's future announcements and publications. Upon acceptance of the Prize, the grant will be sent directly to the awardee's organization.

Nominations, including a curriculum vitae and a brief description of the significance of the nominee's work, and two letters of recommendation from qualified individuals in the nominee's field should be sent to the **S. T. Li Foundation, P.O. Box 8286, Rapid City, SD 57709-8286.** Nominations must be received at the S. T. Li Foundation on or before August 31, 2000. The nominee cannot submit nomination on his or her own behalf.

The S. T. Li Prize in 1999 went to Dr. Larry E. Overman of University of California, Irvine for his contribution to synthetic chemistry. The S. T. Li Prize in 2000 went to Dr. Jin Au Kong of Massachusetts Institute of Technology for his contribution to electromagnetic research.

mayo

Mayo Clinic
Division of Experimental Pathology

Postdoctoral research positions are available to: 1) develop functional assays for BRCA2 missense mutations based on the role of the BRCA2 protein in DNA repair and cell cycle control; 2) characterize a series of candidate oncogenes involved in progression of breast cancer. This will be studied using cell culture and animal models in combination with gene expression analyses.

Applicants should have a Ph.D. with experience in molecular biology, tissue culture, and cell signaling. A highly competitive salary with full benefits is available 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 1001A
Mayo Clinic
200 First Street SW
Rochester, MN 55905
email: couch.fergus@mayo.edu

Mayo Foundation is an affirmative action and equal opportunity employer and educator.

Symposiums

6th National Symposium

BASIC ASPECTS OF VACCINES

May 3 - 5, 2000

BETHESDA, MARYLAND

IMMUNOLOGICAL MEMORY
Antonio Lanzavecchia, *Chair*
Eric Pamer
Susan Swain
Martin Bachmann

MOLECULAR APPROACHES TO IMMUNOENHANCEMENT
Hildegund C.J. Ertl, *Chair*
William E. Paul
Peter Doherty
Eli Sercarz

MUCOSAL VACCINES
Jay Berzofsky, *Chair*
Warren Strober
Charles O. Elson
Eugene Butcher
Gregory Glenn

MICROBIAL MECHANISMS THAT CIRCUMVENT IMMUNITY
Jonathan Yewdell, *Chair*
Bernard Moss
Linda Gooding
Gilla Kaplan

NOVEL VACCINE CONCEPTS AND CLINICAL TRIALS
Gary Nabel, *Chair*
Stephen Hoffman
Michael Korn
James P. Allison

FEATURED SPEAKER Charles A. Janeway, Jr.

Sponsored by the Walter Reed Army Institute of Research

For information, tel: 301-319-9462 fax: 301-319-9035
EM: symposium@na.amedd.army.mil
http://wrair-www.army.mil/symposia/dmbsym.htm

Announcements

NEUROSCIENCE

THE EJLB FOUNDATION SCHOLAR RESEARCH PROGRAMME

The EJLB Foundation awards each year up to seven (7) grants for research projects in all areas of neuroscience that pertain directly or indirectly to schizophrenia and mental diseases. Specific areas of support in the past have included: developmental neurobiology, synaptic mechanisms, systems and cognitive neuroscience, and clinical studies on the genetic and physiopathologic aspects of neurological and psychiatric disorders.

Eligibility for such grants is restricted to young scientists who are pursuing an independent research career and have given evidence of having significant potential. It is also a requirement that these scientists (i) have earned an MD and/or a Ph.D. degree; (ii) have completed their post-graduate training; and (iii) have been admitted after **June 15, 1995** as faculty members of a leading university, or an affiliated non-profit research centre, in Canada or elsewhere in the world.

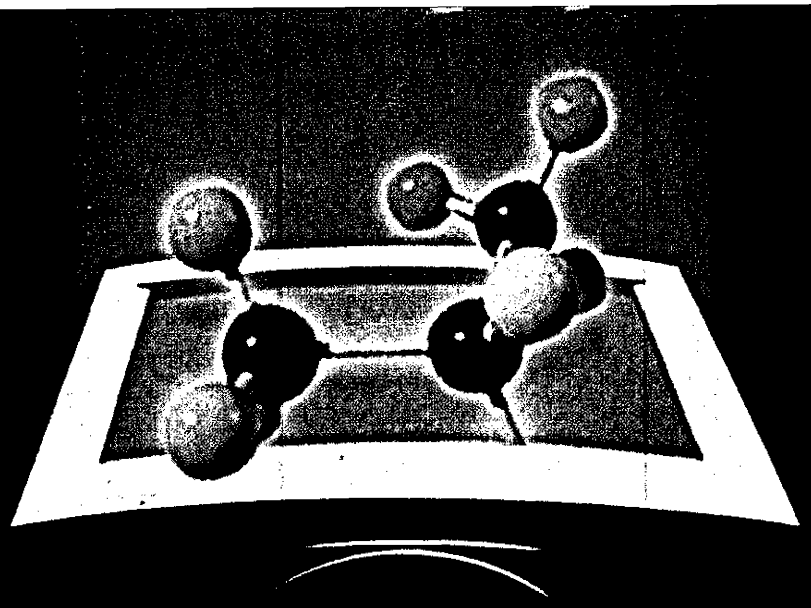
Each grant is of CAN$300,000, is disbursed over three (3) years and is non-renewable.

The next closing date for receipt of letters of intent is **May 1, 2000.**

Full details regarding this programme and required letter of intent forms may be obtained from:

The EJLB Foundation
1350 Sherbrooke Street West - Suite 1050
Montréal, Québec
CANADA H3G 1J1

Fax (*for inquiries only* 514-843-4080).



Advancing science through research.

Postdoctoral Fellowship
Pharmacokinetics, Dynamics and Metabolism
Job Code: HS/00-0069SC, Ann Arbor, MI

This Postdoctoral fellowship is available immediately in the Bioanalytical Section of the Department of Pharmacokinetics, Dynamics and Metabolism. The successful researcher will evaluate, develop and implement novel ionization technology for mass spectrometry. In this position, you will develop and implement expertise in nanospray ionization; evaluate microspray technologies; and work with a major mass spectrometry instrumentation vendor.

Candidate will have a PhD in Analytical Chemistry or a related field; a demonstrated record of publication; as well as the ability to independently drive a research project. Experience with any or all of the following is desired: atmospheric pressure ionization (API) mass spectrometry, HPLC, microbore HPLC, CE, nanospray ionization, and instrumentation development. Proficiency with a personal computer, as well as strong oral and written communication skills are required.

Postdoctoral Fellowship, Discovery Lead Optimization Group
Job Code: HS/00-5925SC, Ann Arbor, MI

We are seeking a highly motivated person with a solid chemistry background for a position as a Postdoctoral fellow in the Discovery Lead Optimization Group, within the Pharmaceutical Delivery Systems. The major focus of the position involves the use of computational methods for the prediction and design of pharmaceutical compounds with attractive physical and chemical properties. The candidate will be expected to have a broad, fundamental knowledge of physical organic chemistry and a solid understanding of the effects of organic structure and mechanism on the properties of organic molecules. The successful candidate will interact with x-ray crystallographers and other scientists to investigate questions of solid-state physical properties. The focus of the work will involve the design of more soluble drug candidates that would be better absorbed into the body.

Candidate should have a Ph.D. in Chemistry or closely related field with emphasis on Organic or Physical Organic Chemistry. Experience in the use of computational chemistry is critical. Skills in Visual Basic, computer automation, web programming, neural networks, expert systems, database construction, data mining or experience with NT and UNIX systems are a plus.

Programmer/Scientist
Job Code: HS/00-0067SC, Ann Arbor, MI

We are seeking a Programmer/Scientist to standardize and generate datasets from phase 2/3 Clinical Research Studies for pharmacokinetic/pharmacodynamic (PK/PD) analysis. Other responsibilities include developing coding standards and output; collaborating with clinical pharmacokineticists and clinical pharmacokinetic research associates to obtain complete PK/PD datasets; improving efficiency through standardization and automation of procedures for obtaining clinical and analytical data for PK/PD analysis; and develop internal/external partnerships to standardize database processes.

Candidates should have a Master's degree or Bachelor's degree or equivalent in a biological and/or computer science area. Programming skills must include SAS and Oracle, and computer skills including graphic and word processing. Prior experience with database management and data processing is also required. Exceptional verbal/written communication and interpersonal skills, and the ability to manage multiple projects and adapt to changing priorities while working in a matrix environment are essential.

Client Server Support
Job Code: HS/00-0085SC, Ann Arbor, MI

Primary responsibilities will be to support and maintain the Turbochrom Client/ Server Chromatographic data handling system for the PDS and Analytical Development departments as well as the network hardware utilized by this system. Candidate will also be expected to provide end users with technical support; interface instrumentation; assist with the diagnosis of problems; develop identification, testing and validation of programs and utilities necessary to expand capabilities. Additional responsibilities include daily system maintenance, diagnostics and documentation required by GxP guidelines and departmental SOP's.

Candidate will have BS/MS in Computer Science with three or more years' experience with Windows NT 4 Server; a minor in Chemistry or Biology is preferred. Alternately, a BS/MS degree in Chemistry with four or more years' experience with administration of Windows NT 4 Server is acceptable. Experience with regulated laboratory environment is a plus.

Postdoctoral Fellowship, Research-Bioinformatics
Job Code: HS/99-1854SC, Alameda, CA

This Postdoctoral Fellowship will work directly with the Bioinformatics group and the scientists on analysis of positionally cloned candidate genes, development of novel search strategies and methods for handling large amounts of genomic sequence information.

Candidate will have a PhD in a Biological Science; possess computer skills in DNA/Protein search strategies; have some experience with databases including SQL and scripting languages; and possess strong written and verbal communication skills, as well as the ability to work in a team environment. Research experience relating to mouse or human genetics, or positional cloning is desired.

We offer competitive salaries, outstanding benefits, and an environment that is conducive to professional growth. We are an equal opportunity employer.

To apply for the position located in **ALAMEDA, CA** please send your resume indicating **JOB CODE (HS/99-1854SC)** to: **Parke-Davis, Human Resources Department, DS, 1501 Harbor Bay Pkwy., Alameda, CA 94502. Fax: 510-749-4294.**

To apply for the positions located in **ANN ARBOR , MI** please send your resume indicating corresponding **JOB CODE**, to: **Warner-Lambert Processing Center, P.O. Box 549231, Suite 24, Waltham, MA 02454-9231. Fax: 877-663-2497.**

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UPCOMING ***SCIENCE* CAREER FAIR**
Washington, DC, at the Marriott Wardman Park Hotel
2660 Woodley Road, NW
across the street from the Woodley Park Metro stop
21 February: 11 am – 4 pm

Remember to bring multiple copies of your CV or resume with you to the Career Fair; a copy will be necessary to gain admission to the hall. *Admission is FREE.* For more information, call 202-326-7018.

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Science
CAREER FAIRS
www.sciencecareers.org

At Monsanto, we share a common goal - to help people lead longer, healthier lives. We are pioneering the use of life-science technologies to understand the connection between human health, nutrition and agriculture and how it can be used to develop products to improve the quality of life for everyone, everywhere.

Team Leader, Corn Yield Enhancement Program

We are seeking a team leader to lead research efforts in biotech yield enhancement in corn by leading a molecular biology/ biochemistry research effort, and coordinating plant transformation, breeding, and genomics efforts. Coordination of technical plans with business objectives is a key responsibility, as is the ability to effectively balance financial and human resources to meet business needs. You will be actively involved in planning for Biotech Yield Discovery efforts and will be adept at shifting available resources in order to meet evolving priorities. Team management, fostering personal development, and hiring new members are roles of the position.

At least a Ph.D. and five years of experience in molecular biology, genetics, biochemistry or related discipline, as well as strong leadership and communication skills and a record of successful scientific project management are required. **Ad Code: 00-0293**

BS/MS Plant Molecular Biologists

The agriculture sector is seeking experienced, highly motivated BS/MS level plant molecular biologists to conduct research in the field of biotechnology. Three positions are available; Plant Molecular Biologist Roundup-Ready, Plant Molecular Biologist Yield Enhancement, and Molecular Biologist Hybridization. The successful candidates will become part of a multidisciplinary group and will be directly involved in providing new products to the marketplace. Responsibilities include; vector construction, plant nucleic acid isolation and protein analysis, and molecular analysis of transgenic plants (northern, southern, PCR).

An advanced degree (or a BS degree with 1-3 years of pertinent research experience) in molecular biology or related area required. An understanding of plant gene expression, plant physiology, or plant genetics preferred. **Ad Code: 00-0546**

Having recently announced a merger with Pharmacia and Upjohn, we are anticipating an exciting future. We offer a competitive salary and benefits package including tuition reimbursement and 401(k). For fastest consideration please submit your resume, including Ad Code selected from above to: **Janice Bown, Mail stop AA3E, Chesterfield Village Campus,700 Chesterfield Parkway North, Chesterfield, Missouri 63198 Email: Janice.o.bown@monsanto.com** EEO/AA Employer M/F/D/V. Please visit our website at: www.monsanto.com

MONSANTO
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NEDO

FY 2000 Grants for International Joint Research in the Areas of Materials, Global Environment and International Standard Development

The New Energy and Industrial Technology Development Organization (NEDO), a government affiliated agency subsidized by the Ministry of International Trade and Industry (MITI), has been conducting the International Joint Research Grant Program. This program aims to promote advancement of the international level of industrial technology and enhancement of international researcher exchange, and the results achieved are expected to create the basis for new key industrial technology. In this regard, NEDO will provide grants to international joint research teams which conduct excellent, innovative and original research in the areas of materials, global environment and international standard development. For the global environment area, this program will be carried out jointly with the Research Institute of Innovative Technology for the Earth (RITE).

Requirements

1) Each team must, in principle, be composed of four (4) or more researchers.
2) Each team must consist of researchers of two (2) or more different nationalities.
3) The affiliates (where the joint research will be performed) must be located in two (2) or more countries.
4) Each team must appoint a research coordinator and an accounting coordinator from among its members. (A research coordinator can also serve as the accounting coordinator). The accounting coordinator's research institute and research location must be in Japan, and he/she must be able to communicate with NEDO in Japanese.

Research Area	Field of Research	Amount of Each Grant in FY 2000	Number of Themes to be Adopted	Recipient of Applications
Materials	Basic research concerning the investigation, elucidation and practical use of materials which will lead to the creation of new industries	about 24,000,000 yen	5 themes	NEDO (Note A)
International Standard Development	Practical research aiming at establishment of international standards to contribute to improvement of industrial technology	about 20,000,000 yen	1 theme	
Global Environment (Practical Research)	Practical research on technology concerning the production, generation and use of oil-alternative energy, excluding electric power generation technologies, which contributes to conservation and improvement of the global environment	about 30,000,000 yen	1 theme	RITE (Note B)

For FY2000, there will be no announcement for the energy and global environment (basic research) areas.

The application period will be from January 18, 2000 to March 17, 2000. (All applications must reach NEDO by the deadline).

Recipient of Applications

Note A: Materials and International Standard Development areas

International Joint Research Division,
Industrial Technology Department
New Energy and Industrial Technology
Development Organization (NEDO)
Sunshine 60, 29F, PO Box 1151 1-1, Higashi-Ikebukuro, 3-chome,
Toshima-ku, Tokyo 170-6028 Japan
Telephone: +81-3-3987-9357
Facsimile: +81-3-5952-0082
E-mail: nedogrant@nedo.go.jp
Web: http://www.nedo.go.jp/itd/grant-e/ENG.HTM

Note B: Global Environment area

Research Proposals Reception Section,
Research Planning Department
Research Institute of Innovative
Technology for the Earth (RITE)
9-2, Kizugawadai, Kizu-cho, Soraku-gun,
Kyoto 619-0292 Japan
Telephone: +81-774-75-2302
Facsimile: +81-774-75-2314
E-mail: proposal@rite.or.jp
Web: http://www.rite.or.jp/

Notes

1. This program is subject to availability of appropriated government funds.
2. Please note that the grant amount and number of themes to be adopted may be changed.
3. To ensure the innovativeness of proposed research themes, up to two (2) applications using the same research plan are acceptable.
4. Regarding an application, if it does not follow the instructions described in the International Joint Research Application Guidebook or the proposed research has no relevancy to the above areas, it will not be considered.

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solid
results.

Schering-Plough is well positioned to meet the competitive challenges in our industry and in global markets. Our enviable portfolio of successful pharmaceutical and consumer healthcare products, our unmatched marketing prowess, and our pipeline of innovative new products in development are designed to drive our growth well into the 21st century.

Schering-Plough continues to invest heavily in research and development, augmented by technology and product licensing opportunities. We continue to report record sales, net income and earnings per share, following our 13th consecutive year of double-digit growth in earnings per share in 1998.

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Schering-Plough

Masonic Medical Research Laboratory

Molecular Biology
Program Director

The Masonic Medical Research Laboratory (MMRL) invites applications for an individual to head its Molecular Biology Program. Position is at a rank equivalent to Associate Professor or higher. Ph.D. and/or M.D. candidates with experience and interest in gene therapy will be given preference. Others are encouraged to apply. A distinguished record of scientific achievement and a solid track record of extramural grant support are a must.

Cardiac Electrophysiology
Staff and Postdoctoral Positions

Staff (Asst. Prof.) and Postdoctoral positions are also available for basic cardiac electrophysiologists experienced with:

1. Calcium Transients and Fluorescent Confocal Microscopy.
A state of the art confocal fluorescent microscope was recently acquired.

2. Optical Mapping of the Heart.
Expertise with voltage sensitive dye and extracellular mapping techniques.

The MMRL is a relatively small not-for-profit independent basic biomedical research institute located in the foothills of the Adirondack Mountains in Upstate New York, well known for its pioneering work in electrical heterogeneity of the heart and mechanisms of cardiac arrhythmia. Appointees will have ready access to our Experimental Cardiology team (electrophysiologists working at the single cell, tissue, organ and *in vivo* levels). *Please send a letter stating your research interests, a curriculum vitae and names and addresses of three references to*: **Dr. Charles Antzelevitch, Director, Masonic Medical Research Laboratory, 2150 Bleecker St., Utica, NY 13501.**

Equal Opportunity/ Affirmative Action Employer.

POSTDOCTORAL POSITIONS

Postdoctoral positions are available for highly motivated individuals to study signal transduction pathways triggered by tumor necrosis factor family members. Experience in molecular biology and/or immunology techniques is preferred.

Please send curriculum vitae and at least two references to:

Dr. Hong-Bing Shu
National Jewish Medical
and Research Center, B121
Denver, CO 80206
Fax: 303-398-1775
Email: mccolluml@njc.org

NATIONAL JEWISH
Medical and Research Center

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International Aspirin® Award 2000

Young Researchers' Aspirin® Award

The Young Researchers' Aspirin® Award's objective is to encourage scientific research into the mechanism of action and clinical use of acetylsalicylic acid, the active ingredient of Aspirin®. Scientists who have contributed to the knowledge of Aspirin® through original independent scientific research in the field of theoretical (experimental) and/or clinical medicine are invited to compete for the Award. The results of their work should have a direct effect on the knowledge or use of Aspirin® and be based on a peer-reviewed publication, accepted and/or published. The publication should not be older than two years. The age limit of the Young Researchers' Aspirin® Award in the year of candidature is 40.

The Young Researchers' Aspirin® Award's value is DM 20,000.

Entries will be judged by an international scientific committee representing basic and clinical research.

Young researchers are invited to order the complete application documents at the following address:

International Aspirin® Award
c/o Bayer AG
Consumer Care Business Group
Integrated Communications
Building C 151
D-51368 Leverkusen/Germany
Fax: ++49-214-30-29554

Deadline for submission is April 30th, 2000
(Date of receipt of documents by Bayer AG)

THE ORIGINAL ASPIRIN

Bayer

POSTDOCTORAL FELLOW

Applications are invited for a postdoctoral research position in the laboratory of Dr. Razqallah Hakem. The main project will be to study animal models for cancer. Applicants should have a Ph.D. in biochemistry with a broad background in cancer biology. Good written and verbal communication skills, strong organizational and interpersonal talents, and the ability to work independently are also important attributes for this role.

For confidential consideration, please send a complete copy of your curriculum vitae, together with the names and addresses of three referees to: ***Dr. Razqallah Hakem, Amgen Institute, 620 University Avenue, Suite 7-706, Toronto, Ontario, Canada, M5G 2C1.***

AMGEN. INSTITUTE Affiliated with Ontario Cancer Institute / University of Toronto

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The Salk Institute

COORDINATOR OF DNA MICROARRAY FACILITY

The Salk Institute for Biological Studies has an immediate opening for a Coordinator of a DNA Microarray Facility. The qualified candidate must be capable of profiling gene expression patterns of thousands of genes in parallel. The position requires expertise in RT-PCR, and the generating and analysis of genomic and expressed sequence microarrays. Direct experience with assay technologies that include fluorescence detection, high throughput screening, assay miniaturization, and robotics or similar experience is desired. Excellent computer and molecular biology skills are essential. Responsibilities will further include data mining and managerial skills to oversee the operation of the laboratory. The position requires a Ph.D. in life sciences, molecular biology or bioinformatics and 2 or more years' relevant research and demonstrated facility management experience.

The Salk Institute offers a competitive salary and excellent benefits. Qualified candidates should send a cover letter, resume, three names of reference and salary requirements to:

The Salk Institute
Human Resource Department-5542
10010 North Torrey Pines Road
La Jolla, CA 92037

The Salk Institute is an Equal Opportunity Employer
www.salk.edu

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This database allows you to post your credentials for access by hiring managers from leading universities and biopharma organizations.

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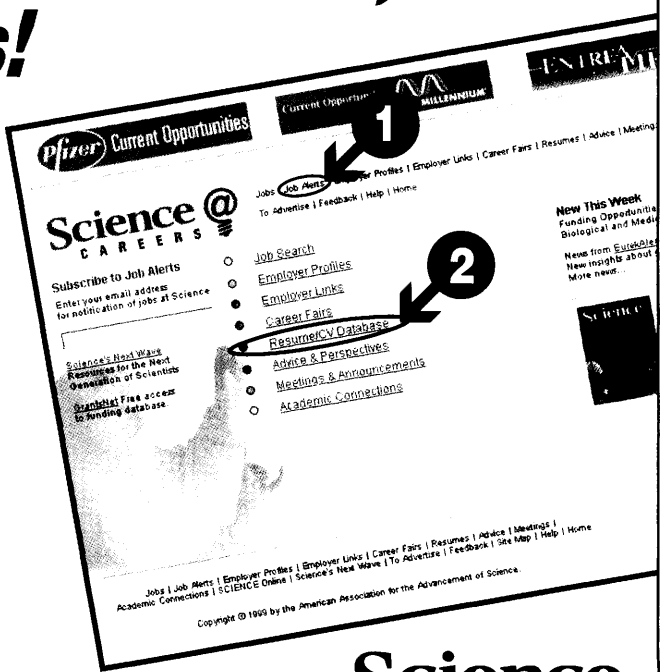

Science
Discover your future.

Science for the 21st Century

At the **Wadsworth Center**, investigators study cell and molecular structure, genetics, cancer, pathogenesis and environmental science, among other fields. Supporting them are outstanding core facilities in biochemistry, genetics, imaging, immunology and molecular structure. The opportunity to train the next generation of researchers further informs this vibrant scientific community.

Three new initiatives — in bioinformatics, genomics and nanobiotechnology — all represent frontier science. Each joins Wadsworth's biomedical research strengths with complementary expertise at neighboring institutions. Together, the three programs promise to keep the Wadsworth Center at science's leading edge.

The Wadsworth Center of the New York State Department of Health is the country's most comprehensive state health laboratory. Wadsworth's long-standing commitment to research enriches its diagnostic, reference and other public health activities.

Wadsworth Center

New York State Department of Health

For more information about Wadsworth Center:
www.wadsworth.org

Bioinformatics

The Center for Bioinformatics is being established by the **Wadsworth Center** and **Rensselaer Polytechnic Institute** (www.rpi.edu). The two institutions are pursuing an aggressive joint research agenda in bioinformatics that will include computationally based parallel experimentation, with a focus on the regulation of gene expression. With Dr. Charles (Chip) Lawrence as its scientific director, the Center for Bioinformatics will combine Wadsworth's strong computational and experimental biomedical research with Rensselaer's strengths in applied mathematics, computer science, engineering, and the physical and life sciences.

Recruitment is ongoing for tenure-track **faculty positions** in bioinformatics and computational biology at Rensselaer. Opportunities also exist for **postdoctoral and graduate training** in bioinformatics at both institutions.

Individuals interested in applying for the faculty or training positions should contact:
Dr. Carmen A. Mannella, Executive Director, Center for Bioinformatics, Wadsworth Center, PO Box 509, Albany, NY 12201-0509; mannella@wadsworth.org

Genomics

The **Wadsworth Center** and **Albany Medical College** (www.amc.edu) jointly are establishing a Genomics Institute to build an internationally recognized program by coordinating their efforts in basic sciences and medicine. The Institute will recruit several new faculty over the next few years, and is now recruiting for **two faculty positions in mammalian genomics** (either mouse or human), one at the junior level (assistant professor) and one at either a junior or senior level.

The Genomics Institute will offer an exceptional research environment and will work closely with the new Center for Bioinformatics to develop novel ideas and technologies. Facilities for high-throughput genomic analysis, including microarray instruments, are available. Excellent start-up packages will be offered. Successful candidates will be expected to establish innovative research programs and participate in graduate training at Wadsworth and/or Albany Medical College.

Applicants should submit a C.V. with the names of three references to:
Dr. Lorraine Flaherty, Director, Genomics Institute, Wadsworth Center, PO Box 22002, Albany, NY, 12201-2002; flaherty@wadsworth.org

Nanobiotechnology

The Nanobiotechnology Program of the **Wadsworth Center** has immediate openings for **five graduate students and five postdoctoral fellows** with Ph.D.s in the life or physical sciences, or engineering. The program is funded by a National Science Foundation Science and Technology Center grant in nanobiotechnology, headed by **Cornell University**.

Research involves interfacing micro- and nanofabrication with immunology, neurobiology, genetics, cell biology, biochemistry and biophysics. Fellows and students will be trained in one of these areas and micro- and nanofabrication. They will interact with an interdisciplinary group of researchers, including those at partner institutions Cornell, Princeton and the Oregon Health Sciences Universities, and will participate in an extensive educational and industrial outreach program.

Contact: Dr. James Turner, Director, Nanobiotechnology Program, Wadsworth Center, PO Box 509, Albany, NY 12201-0509; turner@wadsworth.org

Affirmative action/equal opportunity employers

PIERCE

Pierce Milwaukee, Inc.

Pierce Milwaukee, Inc., a global leader in providing biotechnology products and fine research chemicals to life scientists throughout the world, has several openings for innovative, motivated, goal- and detail-oriented scientists to join our growing team.

Synthetic Organic Chemists
(JOB CODE: SOC)
Qualified candidates will be skilled in the synthesis of phosphoramidites, modified nucleotides and oligonucleotides, with an interest in the use of these substances to develop new detection technologies. A working knowledge of surface attachment chemistries, fluorescence detection, homogeneous assays, basic molecular biology techniques and experience with large-scale production of phosphoramidite materials is helpful. Recent PhDs with 1-3 years of post-doc experience or BS/MS level candidates with 5+ years of directly relevant experience will be considered.

Research Scientist – Proteomics Group
(JOB CODE: PRG)
Qualified candidates will have a Ph.D. in Biochemistry or Molecular Biology, and a mastery of common molecular biology techniques, with an emphasis in the areas of protein expression, purification, 2D-electrophoresis, and protein-protein interaction analysis. One to three years post-doc experience preferred. This individual will play a leadership role in this cross-functional team.

Research Scientist – Drug Discovery Group
(JOB CODE: DDG)
This position will play a key role in developing biochemical assays that are ammenable to HTS. Responsibilities include identification, selection and implementation of target appropriate assay readout technologies, reagents and strategies. Qualified candidates will have a broad understanding of enzymology, reaction kinetics, modern screening and automation technologies; a demonstrated record of successful assay development; a Ph.D. in Biochemistry or a related discipline; and 3-5 years experience in an industrial setting preferred. Experience in HTS assay development and protein chemistry/purification is a plus.

Pierce offers a very competitive salary; company-paid insurance premiums (medical, dental, vision and life insurance); tuition reimbursement; and a company-sponsored and matched 401(k) plan. Relocation assistance is available. Mail, fax or e-mail your resume **with the appropriate job code** to:

Kevin Lowman
Human Resources Manager
Pierce Milwaukee, Inc.
2202 N. Bartlett Ave., Milwaukee, WI 53202
Fax: 414-227-3620
E-mail: kevin.lowman@piercenet.com
Internet: www.piercenet.com

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

FACULTY MEMBER

Assistant/Associate Level

The Molecular Pharmacology Department at St. Jude Children's Research Hospital has an opening for a faculty member at the Assistant/Associate level. Candidates are sought with an interest in developing an independent research program in any area related to the treatment of childhood cancers. Outstanding applicants with a track record in any area relevant to cancer treatment will be considered. Candidates at the Associate Member level should have an established research program supported by peer-reviewed grants.

The Molecular Pharmacology Department is a basic science department at St. Jude Children's Research Hospital. The department has major strengths in signal transduction, anti-cancer drug design, DNA topoisomerases, and model systems for dissecting the mechanisms of action of anti-tumor agents. Opportunities are also available for collaboration with other basic science departments in the areas of biochemistry, genetics, tumor cell biology, structural biology, virology, and developmental neurobiology, and with clinical programs involved in the treatment of solid tumors and hematological malignancies. A generous start-up package is available for an outstanding candidate. St. Jude Children's Research Hospital was founded by Danny Thomas, and continues to receive support for research and clinical programs through the fund-raising efforts of the American Lebanese Syrian Associated Charities (ALSAC).

Please send a curriculum vitae, a three page description of proposed research, and three letters of recommendation to: **John L. Nitiss, Ph.D., Chair, Faculty Search Committee, Molecular Pharmacology Department, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38105.**

www.stjude.org
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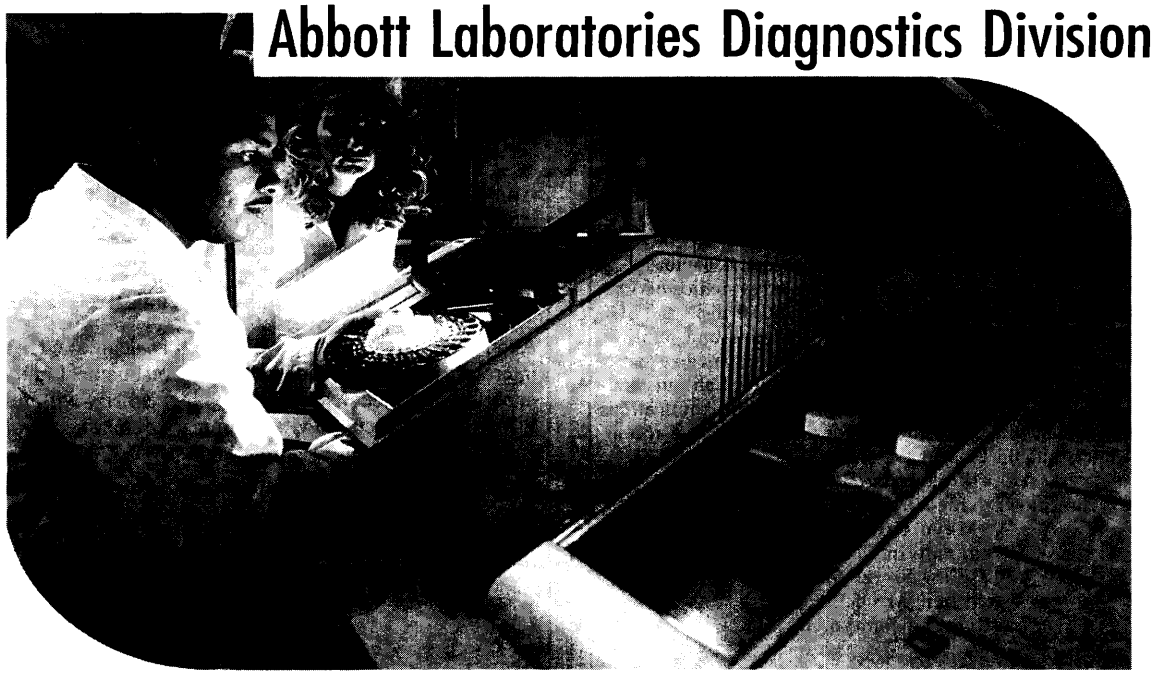

Opportunity

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Abbott Laboratories is a worldwide leader in the discovery, development, manufacture and marketing of health care products and services, with sales in excess of $13.2 billion. With leading products in several key segments of the diagnostics market and sales in over 130 countries around the world, our Diagnostics Division is positioned to achieve our vision of being the world's primary source of diagnostic tests. To continue on our exceptional path of success, we are implementing an exciting strategic initiative, calling for the unique talents of proven professionals to become valued members of our Validation Team.

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www.abbottquality.com

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Fax your resume to: 312-202-1818 or
Mail to: Abbott Diagnostics, Ad Code: 2K-TLM0070
Dept. 94C, Building AP51, 200 Abbott Park Road
Abbott Park, Illinois 60064-6208.

Not only will you be in a position to help shape our future, you'll also enjoy the personal and professional development that comes with interacting with a variety of functional areas, technological advancements and supportive co-workers. **Individuals must be available to start at our Abbott Park, IL location within 2 weeks of acceptance of position. Relocation assistance will be provided.**

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MAYO CLINIC
POSTDOCTORAL POSITIONS

Positions available at the computer-aided molecular design (CAMD) lab for postodoctoral fellows to develop novel angiogenesis inhibitors and to study chromophores of green fluorescent proteins using ab initio/molecular mechanics calculations, spectroscopic analyses, and organic syntheses. Applicants must have strong total-synthesis experience and/or hard-core quantum mechanics and molecular mechanics background. Preference will be given to applicants with their own fellowships or with experience of Beowulf-class computer systems. The CAMD lab has records of developing biologically active molecules and novel methods for zinc protein molecular dynamics simulations and for virtual screen of chemical databases. It has state-of-the-art synthetic equipment, a cluster of dedicated Origin 2000 and 200 servers (16xR10K, 8xR12K, 200Gb disk, and 3Gb memory), and four Octane graphics. Recent patents and publications by the CAMD lab are available from ftp.mayo.edu (name: anonymous, cd pub/camd). The Mayo Clinic provides an outstanding environment for basic and translational research. Applications including curriculum vitae, two first-author papers, and two recommendation letters should be sent to:

Yuan-Ping Pang, Ph.D.
Computer-Aided Molecular Design
Mayo Clinic
Guggenheim 711A
200 First Street SW
Rochester, MN 55905
e-mail: pang@mayo.edu

Mayo Foundation is an affirmative action and equal opportunity employer and educator.

mayo

Postdoctoral Fellowship
Molecular Neuroscience Program
Mayo Medical School
Rochester, Minnesota

Applicants are sought for a postdoctoral fellowship in the laboratory of Dr. Anthony J. Windebank (www.mayo.edu/research/cellular_neurobiology). The recipient of the fellowship will study the cellular and molecular basis of neuronal death and neuroprotective strategies with direct clinical relevance.

Applicants should hold the M.D. or Ph.D. degree and have a career interest in becoming an independent investigator. Candidates with expertise in molecular biology or biochemistry will be preferred. Please send curriculum vitae, summary of past accomplishments, and the names of three references to:

Anthony J. Windebank, M.D.
Molecular Neuroscience Program
Mayo Medical School
1501 Guggenheim Building
200 First Street SW
Rochester, MN 55905

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FELLOWSHIPS

The Feinberg Graduate School of the Weizmann Institute of Science

will award a limited number of

Distinguished Post-Doctoral Fellowships

tenable for two years, with the possibility of an extension for a third year to exceptionally qualified candidates who have received a Ph.D. or equivalent degree from a recognized institution within three years from taking up the appointment. The successful candidates will be known as

Koshland Scholars

In addition to the usual stipend for postdoctoral fellows at the Institute, a Koshland Scholar will receive an extra annual travel allowance of $2,500 for professional purposes and a one time grant of $5,000 for personal use at the end of the first year of residence.

The fellowships are available in all the fields of scientific research that are pursued at the Weizmann Institute. There are seventeen departments that are distributed in five faculties.

Biochemistry **Biology**
Chemistry **Physics**
Mathematics and Computer Science

They are engaged in a wide spectrum of research projects that, in addition to the more traditional disciplines, include interdisciplinary research in:

Agriculture, Bioinformatics, Biomedicine, Engineering, Environmental Sciences and Energy, Neurosciences

Applications may be submitted at any time, but the awards will be made shortly after the usual deadlines for the submission of fellowship applications, January 1 and May 15 each year. Candidates for Koshland fellowships must be submitted by a Faculty Member of the Weizmann Institute. Interested candidates are advised to contact prospective sponsors directly.

Additional information and application forms may be obtained from the Feinberg Graduate School, The Weizmann Institute of Science, Rehovot 76100, Israel. Fax: 972-8-9344114; Email: postdoc@weizmann.ac.il or visit the Feinberg Home Page at: http://www.weizmann.ac.il/feinberg

ANNOUNCEMENTS

MAMMALIAN GENOTYPING SERVICE

The Mammalian Genotyping Service is funded by the National Heart, Lung, and Blood Institute to assist in linkage mapping of genes which cause or influence disease. Genotyping is carried out using short tandem repeat polymorphisms at Marshfield, Wisconsin under the direction of Dr. James Weber. Capacity of the Service is currently about 5,000,000 genotypes (DNA samples times polymorphic markers) per year and growing. Although the Service was initially established for genetic projects dealing with heart, lung, and blood diseases, the Mammalian Genotyping Service will now consider all meritorious applications.

To ensure that the most promising projects are undertaken, investigators must submit brief applications that are evaluated by a scientific advisory panel. At this time, only projects involving humans, mice or rats and only projects with > 10,000 genotypes will be considered. DNA samples must be in hand at the time of application. **There are no genotyping fees for approved projects.** Application deadlines are every six months.

View instructions online:
http://www.marshmed.org/genetics

Call or e-mail for an application:
(715) 389-3525
cywinsks@mfldclin.edu

Upcoming Deadlines:
March 31, 2000
September 30, 2000

Russian Academy of Sciences
Polymer Council of the Russian Academy of Sciences
Moscow State University
Presents:

SECOND KARGIN SYMPOSIUM
"CHEMISTRY AND PHYSICS OF POLYMERS AT THE BEINNING OF THE 21ST CENTURY"

May 29 - 31, 2000
Moscow, Russia
First Announcement

The Polymer Council of the Russian Academy of Sciences and Moscow State University are planning to organize the Second Kargin Symposium "Chemistry and Physics of Polymers at the beginning of the 21st century" sponsored by the Ministry of Science and Technology of the Russian federation and the Russian Foundation for Fundamental Research. The Symposium will be held on May 29 - 31, 2000 at the conference and resort center "Druzhba" (60 km to the east of Moscow, Russia).

Scope
The Scientific Program of the Symposium will cover all fundamental aspects and modern directions of research in the field of polymer chemistry and physics which can be the points of the most rapid growth in the forthcoming 10-15 years. These include:
-Novel Methods of Polymer Synthesis;
-Supramolecular Structures and Self-assembling in Polymers
-Computer Experiments in Polymer Systems
-Polymer Science and Biology at Frontiers
-Field-Responsive Polymers
-Biomimetic approaches in Polymer Systems

English and Russian are the languages of the Symposium.

Invited Lecturers Include:
J. DeSimone (University of North Carolina, USA)
A. Grosberg (University of Minnesota, USA)
A. Kabanov (University of Nebraska)
A. Kornyshev (KFA Julich GmbH)
K. Matyjaszewski (Carnegie Mellon University)
E. Oleinik (Institute of Chemical Physics)
E. Shakhnovich (Harvard University)
V. Shibaev (Moscow State University)
R. Tal'roze (Topchiev Institute of Petrochemical Synthesis RAS)
T. Tanaka (Massachusetts Institute of Technology, USA)
M. Vert (University of Montpellier, France)

Registration Fee
The registration fee is $300, $80 for PhD and M.S. students. It covers the cost of the Symposium facilities, Welcome Party and Book of Abstracts of the Symposium.

Registration
The registration form can be found below. The completed registration form should be sent by e-mail to:
kargin2000@ineos.ac.ru or
by FAX to (7-095) 135-5085 (attn. Kargin2000)
or by mail to:
Polymer Council of the Russian Academy of Sciences
(Kargin 2000)
A.N. Nesmeyanov Institute of Organoelement Compounds RAS
28, Vavilov Street
117813, Moscow, Russia
before March 15, 2000.

Call for papers
If you wish to present a paper or poster at the Symposium please submit one-page abstracts before March, 15, 2000. The abstract should be double-spaced on A4 paper. The title should be in capital letters. The speaker should be indicated as the first author.

Please, submit abstracts by mail to:
Polymer Council of the Russian Academy of Sciences
(Kargin 2000)
A.N. Nesmeyanov Institute of Organoelement Compounds RAS
28, Vavilov Street
117813, Moscow, Russia

or by e-mail (Word for Windows version 6 or 7) to:
kargin2000@ineos.ac.ru

The abstracts of the posters and lectures will be published in the "Book of Abstracts."

Registration Form
The Second Kargin Symposium "Chemistry and Physics of Polymers at the Beginning of the 21st Century," May 29 - 31, 2000, Moscow, Russia.

Participant Information

Participant's Name
Affiliation
Business Address
City
ZipCode
Fax Number
E-mail Address
Title of Presentation
Signature

Accommodation
The resort center "Druzhba" is pleased to offer lodging and meals for Symposium participants. The cost is approximately $50 per day for a single room (including 3 meals).

Upon request prior to your arrival, shuttle service is available from Sheremet'evo International Airport to the Hotel.

Scientist/Flow Cytometry

SmithKline Beecham, a world-class leader in Research and Development, continues to pioneer innovative pharmaceutical and healthcare products and services. We have the following opportunity available at our state-of-the-art suburban Philadelphia facility.

Working in our Safety Assessment department, you will be responsible for the routine operation and maintenance of a FACSVantage-SE cell sorter and oversee the use of FACSCaliburs by individual researchers. In addition, you will develop new flow cytometry (FCM) assays and train individual researchers with design and analyses of FCM data. We require a BS/MS in Immunology/Cell Biology/Molecular Biology or equivalent with 3-5 years of flow cytometry and sorting experience. A good practical and theoretical understanding of flow cytometry, and sorting experience is essential. Strong computer skills are a must. Familiarity with conducting FCM assays in a GLP environment will be a plus.

SmithKline Beecham is dedicated to an innovative workplace and supports you with career long opportunities and learning. We offer a competitive benefits and compensation package. For confidential consideration, please forward your scannable resume to: SmithKline Beecham, c/o National Resume Services, Ad Code: 2K0071A, PO Box 1070, Burlington, MA 01803. Indicating Ad Code is essential. Principals only, no agencies please. For a full listing of current opportunities, or to submit a resume online, visit our website at www.sb.com/careers

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Pharmaceuticals

UNIVERSITY OF MISSOURI

MOLECULAR MICROBIOLOGY AND IMMUNOLOGY POSTDOCTORAL POSITIONS

General areas of research include:

- Molecular aspects of microbial pathogenesis
- Regulation of gene expression in prokaryotic and eukaryotic pathogens including: iron regulated operons in *E. coli*, mycoplasma and yeast systems, and molecular virology
- Membrane structure and function in pathogens; mechanisms of phenotypic switching; surface antigen variation
- Pathogenic mechanisms of *Vibrio cholerae, Haemophilus influenzae, Borrelia, Rickettsia, Ehrlichia*
- Horizontal transmission of virulence gene(s)
- Parasitic nematodes

Complete descriptions of research programs are available on our web site: www.missouri.edu/~mmiwww. Qualified applicants must be U.S. citizens or permanent residents to be supported by an NIH training grant.

Direct inquiries to: Ms. Selby, Dept. of Molecular Microbiology and Immunology, M616 Medical Sciences Bldg., University of Missouri-Columbia, Columbia, Missouri 65212. Phone (573) 882-8989 Fax (573) 882-4287. The University of Missouri is an affirmative action, equal opportunity employer. Women and members of traditionally under-represented minorities are encouraged to apply.

POSTDOCTORAL POSITIONS MICROBIOLOGY AND IMMUNOLOGY

The following faculty in the Department of Microbiology and Immunology, University of Michigan Medical School, are actively recruiting exceptional postdoctoral scientists to join their research programs:

Brian J. Akerley, Ph.D.	Genome-scale studies of *Haemophilus influenzae*-host interactions
D. Keith Bishop, Ph.D.	Transplant immunology; immunosuppressive gene therapy; regulation of T-cell mediated immunity
Michael J. Imperiale, Ph.D.	Adenovirus gene expression and gene therapy vector development; oncogensis of human polyomaviruses
Joel A. Swanson, Ph.D.	Cell biology of microbial pathogenesis in macrophages; development of cell biological imaging technologies
Michele Swanson, Ph.D.	*Legionella pneumophila* growth in macrophages
Alice Telesnitsky, Ph.D.	Retroviral replication; mechanisms of retroviral genetic variation

The Department offers an exciting environment in which to train, and the Medical School is a national leader in basic and translational biomedical research. More information can be found by visiting www.med.umich.edu/microbio and following the links to individual faculty pages. These positions are funded by research and training grants. Ann Arbor offers the cultural, sports, and educational activities of a big city while maintaining a college town atmosphere. Interested applicants should send a CV and the names and addresses of three references directly to the appropriate faculty member(s) at the following address:

Department of Microbiology and Immunology
University of Michigan Medical School
5641 Medical Science Building II
Box 0620
Ann Arbor, MI 48109-0620

CAREERS FOR THE NEW CENTURY WITH HUMAN GENOME SCIENCES

Human Genome Sciences, Inc. *is a company with the mission to develop products to predict, prevent, detect, treat and cure disease based on technology derived from its leadership position in the discovery and understanding of human, microbial, and plant genes. We seek highly motivated individuals for:*

MEDICAL AFFAIRS

The successful candidates must have the following qualifications: M.D. with 4 - 7 years of experience in performing and evaluating clinical trials; knowledge of FDA regulatory requirements; the ability to work on extremely complex problems and/or data and to act independently in determining methods and procedures on new assignments, as well as in developing methods, techniques, and evaluation criteria for obtaining results. Job Code: AL-2/11

BIOSTATISTICIAN

Will be responsible for providing statistical and data analyses support to pre-clinical, assay development as well as clinical projects, including: development of statistical methodology to support clinical, pre-clinical studies; participation in project teams; development of clinical protocols, statistical analysis plans, and support the writing of final clinical study reports; and development of new technology to assist in a faster time to approval of biologics. Must be familiar with federal regulations such as CFRs and ICH guidelines. Must have Ph.D. in statistics, biostatistics or related field, minimum 2 years experience in the biopharmaceutical industry and knowledge of S-Plus, SAS, R statistical packages. Knowledge of computer systems and Web technology desirable. Job Code: PB-2/11

QUALITY CONTROL

Scientist position is available for Ph.D. in analytical chemistry/biochemistry with 3 – 5 years postdoctoral experience. Candidate will be responsible for developing and validating HPLC and electrophoresis assays in a regulated environment. Industrial background preferred. Job Code: JK-2/11

MOLECULAR BIOLOGY

Our Molecular Biology department focuses on identifying, characterizing, and developing genomics based therapeutic proteins, antibodies, and drug targets for HGS' pre-clinical pipeline. Positions are available for scientists with a Ph.D./M.D. and 5+ year postgraduate experience in molecular biology, genomics or related science. Experience in one of the following areas is also required: growth factor or cytokine biology, signal transduction, antibody development, high-throughput genomics applications including database mining, expression analyst and assay development. Job Code: SR-2/11

CELL BIOLOGY

Openings available for scientists interested in developing innovative approaches to cell-based assays for discovery and characterization of novel genomics-based therapeutic proteins. Candidates must have a Ph.D./M.D. with 5+ years of postgraduate training and proven track record for independent research in a university or pharmaceutical industry. Preference will be given to applicants with research experience in tumor biology and immunology. Cell biologists with experience in any of the following areas are also encouraged to apply: autoimmunity and allergy, connective tissue diseases, stem cells (mesenchymal), or in vitro assay development.
Job Code: JG-2/11

PHARMACOLOGY

Research Scientist Position(s) are open in Pharmacology Department in respiratory, metabolic, endocrine or urogenital systems. Ph.D. in biological sciences. 2-4 years experience in pharmaceutical research. Expertise in vivo modelling for drug development of either protein or small molecule candidates. Job Code: BR-2/11

PROTEIN EXPRESSION

Seeking individuals with Ph.D., M.S. or B.S. in biological sciences with 1-3 years experience in recombinant protein expression in eukaryotic, viral and/or bacterial systems. Job Code: TC-2/11

PROTEIN CHARACTERIZATION

Seeking individuals with Ph.D., M.S., or B.S. in protein chemistry or related discipline with working knowledge in mass spec., protein sequencing and analysis.
Job Code: DP-2/11

FERMENTATION/CELL CULTURE

Design and execute the development of bacterial and/or mammalian cell culture processes. Skills include media optimization and large scale production. Preference given to individuals with industrial experience. Job Code: RG-2/11.

PURIFICATION

Seeking individuals with Ph.D., M.S. or B.S. in protein chemistry, biochemistry or related discipline with expertise in recombinant protein purification from bacterial, mammalian and/or insect cells. Industrial experience and familiarity with large scale purification and protein characterization are preferred. Preparation of SOPs and knowledge of cGMPs a plus. Job Code: RG-2/11

FORMULATION & PURIFICATION

Scientist position is available for developing a program to produce and evaluate chemical modifications of therapeutic proteins via addition of polyethylene glycol (PEGylation). The ideal candidate will have a strong background in protein chemistry, purification, and formulation. Position covers all aspects of development from identifying PEGylation strategies, synthesizing PEGylated proteins, purification, formulation, and stability analysis. Individual will work closely with pharmacology and analytical development in evaluating candidate compounds. Qualified candidate will have a Ph.D. in Chemistry, Biochemistry, or related field with 0-5 years of experience. Preference will be given to candidates with previous PEGylation experience. Knowledge of cGMPs and regulatory requirements is desired.
Job Code: TS-2/11

HGS

All positions require strong communication skills, and the ability to work independently and as part of a team. HGS encourages the pursuit of academic excellence and offers competitive benefits including educational reimbursement, subsidized health club membership, medical/dental/ life/disability insurance programs and a 401(k) plan with employer match. Please FAX (301) 309-1845 or send your resume (indicating appropriate Job Code) to **Human Resources Dept., Human Genome Sciences, 9410 Key West Avenue, Rockville, MD 20850.** EOE.

Visit our Web site to learn more about us: http://www.hgsi.com

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FACULTY POSITION
OKLAHOMA MEDICAL RESEARCH FOUNDATION

The Cardiovascular Biology Research Program at the Oklahoma Medical Research Foundation in Oklahoma City has a faculty position available for an outstanding applicant with research interests that complement those of existing members of our program, such as vascular cell biology, inflammation, animal models, or atherosclerosis. We offer an attractive recruitment package and an excellent working environment. While the position is open to candidates of any rank, preference will be given to Investigators in the early stages of their careers. Applicants should hold a Ph.D. and/or M.D. and demonstrate potential as independent scientists. Interested applicants should contact: **Dr. Charles T. Esmon; e-mail: cyb@omrf.ouhsc.edu**. Include your curriculum vitae, a research summary, and the names of three references as an attachment file. Please visit our **website: www.omrf.ouhsc.edu/CVB.** *Affirmative Action/Equal Opportunity Employer.*

TENURE-TRACK POSITIONS
CELL/MOLECULAR BIOLOGY
UNIVERSITY OF TOLEDO

The University of Toledo is undertaking a major new initiative at the interface of biology and chemistry, including the formation of a new Department of Biological Sciences. Currently, we are seeking to recruit four open-rank, tenure-track faculty members to join the existing cell/molecular biology faculty. Candidates should have a research focus in the area of eukaryotic signal transduction to complement existing strengths in cell adhesion, transcription regulation, cancer biology, nematode molecular biology and biochemistry, and plant molecular biology. Facilities include a new $33 million research complex with state-of-the-art laboratories and an outstanding instrumentation center. Joint appointments with the Departments of Medicinal and Biological Chemistry and Chemistry will be encouraged. Applicants must have a Ph.D. and postdoctoral experience. Successful candidates will have or will be expected to develop an externally funded research program and will participate in undergraduate and graduate instruction. The Department offers B.S., M.S., and Ph.D. degrees. Salary and set-up funds are competitive. Review of applications will begin March 6, 2000, and continue until the positions are filled. The starting date for these positions will be August 2000 or later. These positions are available pending final approval.

Interested candidates should send a letter of application, curriculum vitae, statement of teaching and research interests, and arrange to have three letters of recommendation sent to: **Chair, Faculty Search Committee, Department of Biology, University of Toledo, Toledo, OH 43606-3390. E-mail: pkomuni@uoft02.utoledo.edu**. *The University of Toledo is an Affirmative Action/Equal Opportunity Employer; Minorities/Females/Disabled/Veterans. Qualified women and minorities are encouraged to apply.*

FACULTY POSITIONS, M.D. OR PH.D.
SINT EUSTATIUS SCHOOL OF MEDICINE
Located on Sint Eustatius in the Dutch West Indies

Has openings for the semester beginning May 1, 2000, for **ASSISTANT PROFESSORS** in the Departments of Embryology, Gross Anatomy, Physiology, Biochemistry, Immunology, and Genetics. We are purely a teaching institution; we have no facilities or funds for research. Interested applicants should apply with curriculum vitae, references, and department of choice to: **C. Frank Chambers, M.D., Chairman, Search Committee, P.O. Box 527668, Miami, FL 33152-7668. E-mail: jobean@erols.com; FAX: 599-4-62638.**

POSITIONS OPEN

FACULTY POSITIONS
TISSUE ENGINEERING
University of Massachusetts Medical School

The newly created Department of Tissue Engineering at the University of Massachusetts Medical School has openings for tenure-track faculty positions at all levels. Individuals with expertise in all areas of tissue engineering, including cell biology, neuroscience, endocrinology, polymer synthesis, materials processing, and biomechanics, are encouraged to apply. Current areas of research in the Department include: engineering of musculoskeletal and neuroendocrine tissues, biomaterials processing, and stem cell biology. Opportunities for collaborative research exist with faculty in cell biology, physiology, and biomedical engineering, as well as members of the Diabetes Endocrinology Research Center.

Candidates should have a Ph.D. in cell biology, biomedical engineering, materials science, physiology, or a related field. Applicants are expected to develop areas of independent research while interacting with existing faculty in key areas of interest. Faculty are also expected to develop and teach graduate-level courses in their area of expertise and supervise graduate students in thesis research. Applicants for senior-level positions should have a strong history of publication and independent funding. Interested candidates should send a curriculum vitae, a statement of rsearch and teaching interests, and a list of five references with contact information to: **Dr. Charles A. Vacanti, Professor and Chair, Department of Tissue Engineering, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01655**. Applications should be forwarded by March 15, 2000. *To enrich education through diversity, the University of Massachusetts Medical School is an Affirmative Action, Equal Opportunity Employer. Women and minorities are encouraged to apply.*

TENURE-TRACK POSITION

Tenure-track position in the sections of Leukocyte Biology and Infectious Diseases, Department of Pediatrics, Baylor College of Medicine. Board certification in Pediatric Infectious Diseases required, and basic research training and experience in the developmental aspects of inflammation and host defense and in clinical and laboratory assessment of leukocyte function abnormalities is desired. While the successful candidate will have opportunity to collaborate with established research programs in the Department, he/she should be able to rapidly establish an independent research program. Send letter of application and a curriculum vitae to either:

Carol J. Baker, M.D.
Head, Section of Pediatrics Infectious Diseases
Professor, Department of Pediatrics
Baylor College of Medicine
One Baylor Plaza, 302A
Houston, TX 77030

C. Wayne Smith, M.D.
Head, Section of Leukocyte Biology
Professor, Department of Pediatrics
Baylor College of Medicine
1100 Bates, Room 6014
Houston, TX 77030-2600

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

FACULTY POSITIONS: PHARMACOLOGY
COLLEGE OF PHARMACY
LONG ISLAND UNIVERSITY

The college is seeking qualified individuals for several full-time, tenure-track faculty positions. Applicants with a Bachelor of Science in pharamacy and a Ph.D. in medicinal chemistry-pharmacology would be given preference. Please send curriculum vitae and the names of three references to:

Ravindra Raje, Ph.D.
Director, PTM Division
College of Pharmacy
75 DeKalb Avenue, Room L-32
Brooklyn, NY 11201

POSITIONS OPEN

BARBARA ANN KARMANOS CANCER INSTITUTE

MOLECULAR CELL BIOLOGIST
CANCER RESEARCH FACULTY POSITION

The Barbara Ann Karmanos Cancer Institute and the Department of Pathology seek an outstanding basic and/or clinical-translational cancer researcher for a faculty position at Wayne State University. Candidates for this position will be at the level of **ASSISTANT PROFESSOR**, with a recent M.D. or Ph.D. degree and a strong track record of academic achievement in basic cancer research in broad areas of molecular cell biology. The primary responsibility will be to participate in existing clinical translational cancer research and including the development of an independent basic/clinical translational research program. **Website: www.karmanos.org.**

Please send letters of application, accompanied by curriculum vitae and names of three references, to:

Caryn Volpe
Academic Affairs and Research Administration
Barbara Ann Karmanos Cancer Institute
4100 John R, Second Floor
Detroit, MI 48201

Wayne State University School of Medicine, the country's largest single-campus medical school, is an Equal Opportunity/Affirmative Action Employer.

NATURAL RESOURCES FACULTY AND DIRECTOR OF ADIRONDACK AQUATIC INSTITUTE

Paul Smith's College, the College of the Adirondacks, is conducting a search for a faculty member in the Division of Natural Resources, Liberal Arts, and Sciences who will also serve as Director of the Adirondack Aquatic Institute (AAI) of Paul Smith's College. The Adirondack Aquatic Institute was established in 1992 and works within the 6 million acre Adirondack Park to understand, preserve, and protect the aquatic resources of the Adirondacks through research and education. Information about the AAI is available through the College **website: http://www.paulsmiths.edu**.

The successful candidate will be responsible for teaching in the College's baccalaureate program in natural resources; directing and promoting the activities of the Institute; and seeking funding to assist in the support of the AAI and associated research projects, preferably involving undergraduate students. Areas of expertise should include at least two of the following: limnology; stream ecology; environmental simulation modeling; computer applications in science, lake, or watershed management; GIS. Requirements include Ph.D., research, and teaching experience in an area related to the aquatic sciences and a track record of successful grant applications.

To apply, send a curriculum vitae; statement of research and teaching interests; selected reprints; and names, addresses, and telephone numbers of three persons qualified to prepare letters of reference to: **Director of Personnel, Paul Smith's College, P.O. Box 265, Paul Smiths, NY 12970. FAX: 518-327-6161; e-mail: personnl@paulsmiths.edu**. Review of applications will begin immediately and continue until an appointment is made.

Paul Smith's College values diversity in the college community and seeks to assure Equal Opportunity through a continued Affirmative Action Program.

SEARCH EXTENDED
DIRECTOR, GREAT LAKES INSTITUTE FOR ENVIRONMENTAL RESEARCH

Outstanding opportunity for an individual with international reputation in environmental science/engineering and commitment to build a first-class research institute at the University of Windsor. *Candidates of all nationalities are invited to apply.* Full details at **website: www.uwindsor.ca/glier/** or from: **Dr. Peter F. Sale, Acting Director; e-mail: sale@uwindsor.ca**. Information on the University's programs at **website: www.uwindsor.ca.**

Meetings

Targets & Molecules:

The Science of Drug Discovery

March 8 - 10, 2000

Organized by:
David Stewart, Bruce Stillman & Jan Witkowski
(Cold Spring Harbor Laboratory)

Topics

- ***Infectious Diseases***
- ***Cancer***
- ***Neuroscience***
- ***Controversial Issues in Intellectual Property***

Speakers

Robert Benezra, *Sloan Kettering Institute*
Dani Bolognesi, *Trimeris, Inc.*
Martin Citron, *Amgen, Inc.*
Peter Colman, *Biomolecular Research Institute*
Judah Folkman, *Children's Hospital*
Maria Freire, *NIH*
Edward Gimmi, *SmithKline Beecham*
Dennis Henner, *Genentech*
Steven Holtzman, *Millenium*
Peter Lansbury, *Brigham and Women's Hospital*
Perry Molinoff, *Bristol Myers Squibb*
Dennis Selkoe, *Harvard Medical School*
Randal Scott, *Incyte Pharmaceuticals*
Laura Shawver, *Sugen, Inc.*
Lex Van der Ploeg, *Merck Research Laboratories*
George Yancopoulos, *Regeneron Pharmaceuticals*

2000 Spring Meetings

Zebrafish Development & Genetics
April 26 - 30, *Abstract Deadline, February 2*

Molecular Chaperones & the Heat Shock Response
May 3 - 7, *Abstract Deadline, February 9*

Genome Sequencing & Biology
May 10-14, *Abstract Deadline, February 16*

The Cell Cycle
May 17 - 21, *Abstract Deadline, February 23*

Retroviruses
May 23 - 28, *Abstract Deadline, March 1*

65th Symposium: Biological Responses to DNA Damage
May 31 - June 5, *Abstract Deadline: March 8*

Cold Spring Harbor Laboratory
Meetings & Courses, 1 Bungtown Rd,
Cold Spring Harbor, NY 11724
Email: meetings@cshl.org
Fax: 516-3678845 Phone: 516-3678346
www.cshl.org/meetings/

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Toxicologist

We are seeking a Scientist with a minimum of 5 years experience and Ph.D. or DVM with formal training in toxicology.

This individual will be responsible for the design, implementation and analysis of GLP toxicology studies to support the regulatory filings of protein-based human parenteral drugs with the FDA and EMEA. The successful candidate will be familiar with GLP, FDA and ICH guidelines for drug licensure. Certification by American Board of Toxicology (ie. DABT) & experience in placing studies with contract laboratories are assets. Experience in performing toxicological studies with biologicals is preferred.

Regeneron is located on a campus-like corporate park and offers an outstanding benefits package including relocation, medical, dental, vision, Rx, stock options, 401(k) plan with match, tuition reimbursement, short and long term disability, life insurance and paid holidays, vacation and personal days. For consideration, please submit a cover letter, along with a resume and salary requirements, **indicating Job Code: TOX-NS111, to: Regeneron Pharmaceuticals, Inc., Human Resources, 777 Old Saw Mill River Rd, Tarrytown, NY 10591 Fax: (914) 345-7790 e-mail: jobs3@regpha.com** EOE M/F/D/V
(Please provide an electronic version of your resume or C.V. as text or PDF)

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Laboratory

POSTDOCTORAL FELLOW/SCIENTISTS

The National Cancer Institute's Frederick Cancer Research & Development Center (NCI-FCRDC), located in scenic Frederick, MD, is a complex of highly technical R&D laboratories and Center support activities. **SAIC Frederick** manages the Operations & Technical Support contract for the NCI-FCRDC, and functions as a contemporary biotechnology organization dedicated to the development of knowledge and tools for diagnosis, treatment and prevention of human cancer and AIDS. The following career opportunities are currently available:

Postdoctoral Fellow (#6780) — The Laboratory of Retroviral Pathogenesis is seeking a motivated individual to study viral and host determinants of pathogenesis in HIV and SIV/HIV systems; this laboratory also develops and applies quantitative virological and immunological methods to identify and characterize viral and host factors involved in retroviral pathogenesis, and to evaluate candidate vaccines and treatment modalities. PhD, or equivalent, in molecular virology/immunology is required. Prior experience working in HIV and/or SIV systems is a definite plus.

Scientist (#6831) — The Protein Chemistry Laboratory is seeking a proactive individual that will be aggressive in the acquisition of interesting macromolecular interactions for investigation both at the fundamental levels and for implementation of assays for the "Molecular Mechanism-Based Screening Program." These high through-put, molecular screens are designed to identify novel inhibitor chemotypes for potential development. PhD in molecular biology/protein biochemistry and related experience, particularly in HPLC, FPLC, UV/VIS and fluorescence spectroscopy, are required.

Scientist (#6859) — The PCL-Biopolymer Mass Spectroscopy Laboratory is seeking a proactive individual to instruct and support routine biopolymer mass spectrometry and develop advanced applications in protein mass spectrometry to address fundamental questions about protein structure and function. Particular emphasis will be given to interfacing BIAcore Biosensors with mass spectrometry. PhD with a strong background in protein chemistry, biotechnology and instrumentation is required.

You'll work in a campus-like setting near Baltimore, MD and Washington, DC. Put your expertise to work for **SAIC Frederick** and play a key role in the quest to conquer cancer and related diseases.

We offer competitive salaries and comprehensive fringe benefits, including insurance, 401(k) savings plan, stock purchase programs, relocation assistance and more. Please reference position and number and forward CV with references, in confidence, to: **SAIC Frederick,** ATTN: M. Elizabeth Battle, NCI-FCRDC, PO Box B, Frederick, MD 21702; e-mail: hr@mail.ncifcrf.gov or lbattle@mail.ncifcrf.gov. For additional positions, visit out Web site at: http://saic.ncifcrf.gov or saic.com.

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SILVICULTURIST
SCHOOL OF FORESTRY AND ENVIRONMENTAL STUDIES
Yale University

A **TENURED FACULTY POSITION** in silviculture is available at the School of Forestry and Environmental Studies. We seek an individual with a strong research program focused on the regeneration ecology of forests worldwide. The person should demonstrate that he/she has an active field-based research program in both tropical and temperate forest regions and that this research has a strong basis in plan physiology and morphology. Research should be applied to the development and testing of silvicultural techniques for restoration of degraded lands and for the management of natural forests for a variety of timber and nontimber products and services, such as watershed protection, climate amelioration, and biodiversity conservation. The individual should also have demonstrated a willingness to be part of interdisciplinary research groups that concentrate on important resource issues, both at the School and elsewhere. Teaching is expected to include graduate-level courses in silviculture and applied forest ecology and to contribute to advanced interdisciplinary courses in forest management.

Applicants should send, by March 15, 2000, their curriculum vitae; a statement of their research and teaching interests; a list of three references; and representative examples of their publications to: **Dr. Graeme P. Berlyn, Chair, Silviculture Search Committee, Yale University School of Forestry and Environmental Studies, 370 Prospect Street, New Haven, CT 06511 U.S.A. FAX: 203-432-3929; Telephone: 203-432-5142; e-mail: graeme.berlyn@yale.edu.**

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

The Department of Biology at Rider University is recruiting an **ASSISTANT PROFESSOR** for a full-time, tenure-track faculty position beginning September 2000. Successful applicants will be broadly trained in behavioral, cellular, computational, or cognitive neurosciences and be able to teach courses as part of a growing biopsychology program. The ability to establish and sustain an active research program involving undergraduates is expected. A Ph.D. and postdoctoral experience are required. For additional information, please contact: **Dr. Jonathan Karpot** at **609-895-5658**. Interested applicants should send their curriculum vitae, statements of teaching philosophy and research interests, and three references to: **Rosemary Molloy, Manager of Employment, Human Resources, Rider University, 2083 Lawrenceville Road, Lawrenceville, NJ 08648**. Review of applications will begin immediately and continue until position is filled. Visit Rider on the Internet at **website: www.rider.edu**. *Rider University is an Equal Opportunity/Affirmative Action Employer and does not discriminate on the basis of age, race, sex, disability, sexual orientation, national origin, religion, or any other nonjob-related criteria.*

TENURE-TRACK FACULTY POSITION
FOOD MICROBIOLOGIST

Oregon State University's Department of Microbiology seeks an **ASSISTANT PROFESSOR** for a 12-month, tenure-track position. We seek an individual with a strong interest in teaching and developing a research program centered around food microbiology, pathogenesis of foodborne microbes, and/or microbial food safety. Candidates for this position must have a Ph.D. degree in an appropriate biological discipline with postdoctoral research experience in food microbiology/food pathogens required. Send curriculum vitae, statement of teaching goals, research interests, and three letters of reference to: **Selection Committee, Department of Microbiology, 220 Nash Hall, Oregon State University, Corvallis, Oregon 97331-3804**. Screening begins April 10, 2000, and continues until the position is filled. *Oregon State University is an Equal Opportunity/Affirmative Action Employer with a policy of being responsive to the needs of dual-career couples.*

POSITIONS OPEN

CORNELL
UNIVERSITY
Weill Medical College

TENURE-TRACK POSITIONS IN GENETIC MEDICINE

As part of a significant enhancement of its basic biomedical science research programs and laboratory facilities, Weill Medical College of Cornell University (formerly known as Cornell University Medical College) is undertaking a major program initiative in the area of genetic medicine and is seeking to recruit tenure-track faculty at all levels. We are especially interested in candidates with research interests related to pharmacogenetics, the molecular genetics of cancer, the functional analysis of genes, the study of polygenic disease, genome scanning, and chip technology. Exceptional candidates in other related/appropriate fields will also be considered. Candidates for junior positions should demonstrate the potential for establishing a vigorous independent research program, and candidates for senior positions should have an outstanding record of productivity. Candidates should have Ph.D. or M.D. degrees.

Recruited faculty will receive generous start-up support. Candidates may participate in the Graduate School of Medical Sciences program, which includes faculty from the Weill Medical College and the Sloan-Kettering Institute. Applications should include a curriculum vitae, statement of research interests, and three letters of recommendation. Applications should be sent to: **Bernadette M. Mosellie, Genetic Medicine Recruitment Committee, Box # 27, Weill Medical College of Cornell University, 1300 York Avenue, New York, NY 10021**. *Equal Employment Opportunity/Affirmative Action/Minorities/Females/Disabled/Veterans.*

FACULTY POSITION
INFECTIOUS DISEASES/IMMUNOLOGY

The Department of Diagnostic Medicine/Pathobiology invites applications for a faculty position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. This position is a tenure-track, 12-month appointment in the College of Veterinary Medicine, beginning in July 2000. Applicants should have a Ph.D. degree and additional research training or experience. We seek a faculty colleague who will pursue a vigorous research program, collaborate with other departmental scientists, and contribute to a quality teaching effort. The research area is open, but applicants using molecular-based approaches to solve problems in infectious disease and/or immunological aspects of infectious disease are sought. The Department and College maintain excellent research facilities and equipment. A strong interdepartmental graduate program exists in the area of infectious diseases. Interested individuals should submit an application letter containing a statement of research interests, a curriculum vitae, and three letters of recommendation to: **Dr. G. C. Stewart, Chair of the Search Committee, Department of Diagnostic Medicine/Pathobiology, College of Veterinary Medicine, Kansas State University, Manhattan, KS 66506**. Inquiries can be directed to: **Dr. Stewart at 785-532-4419; e-mail: stewart@vet.ksu.edu**. Screening of applicants will begin April 17, 2000, and the search will be continued until a suitable candidate is found. *Kansas State University is an Equal Opportunity/Affirmative Action Employer.*

Tenure-track positions in biochemistry. Effective July 1, 2000. **ASSISTANT PROFESSOR POSITIONS** (Ph.D. with postdoctoral experience) to teach biochemistry at both undergraduate and graduate levels and to develop a solid, externally funded research program. Deadline: 15 April 2000. See our **website: http://www.laurentian.ca/www/chem/index.htm** for complete details on positions and application procedures. Contact: **Dr. W. Rank, Head, Department of Chemistry and Biochemistry, Laurentian University, Sudbury, Ontario P3E 2C6 Canada. FAX: 705-675-4844.**

POSITIONS OPEN

ASSISTANT PROFESSOR
MARINE MICROBIAL ECOLOGIST
UNIVERSITY OF CALIFORNIA
Santa Barbara

The Department of Ecology, Evolution, and Marine Biology at the University of California, Santa Barbara, seeks applicants for a tenure-track faculty position at the Assistant Professor level for research and teaching in marine microbial ecology. Candidates are sought with research interests and experience combining contemporary approaches with inquiry into the ecological role and adaptations of prokaryotic microorganisms to marine environments. Examples of possible areas of research might include but need not be confined to: archaebacteria, vent community microorganisms, symbiotic bacteria, methanogens, biogeochemical processes and cycling, trophic and community interactions, microbial evolution, etc. Teaching responsibilities will include instruction in microbial ecology at the undergraduate level and marine microbial ecology and biological oceanography at the graduate level. A Ph.D. is required by the time of appointment. The Department has major strengths in marine biology, biological oceanography, limnology, physiology, ecology, and evolutionary biology (**website: http://lifesci.ucsb.edu/EEMB/index.html**). Submit curriculum vitae, selected reprints, a brief description of previous and anticipated research, and arrange to have at least three letters of reference sent to: **Faculty Search Committee, Department of Ecology, Evolution, and Marine Biology, University of California, Santa Barbara, CA 93106**. Review of applications will begin April 1, 2000, and will continue until the position is filled. *University of California, Santa Barbara, is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS
VIROLOGY/TUMOR IMMUNOLOGY

The Department of Microbiology and Immunology at Georgetown University Medical Center invites applications to fill two to three full-time, tenure-track positions at the level of **ASSISTANT/ASSOCIATE PROFESSOR**, with potential joint appointments in the Lombardi Cancer Center. Applicants should have research interests in the area of virology and/or tumor immunology and experience with the utilization of current biotechnological methods in these disciplines. Candidates must have an M.D. and/or Ph.D. in microbiology or a related discipline, postdoctoral training, and a record indicating outstanding abilities and potential that is supported by publications and the ability to obtain extramural funding. Successful candidates will be expected to develop and maintain an independent, externally funded research program and participate in the educational mission of the institution by teaching graduate and medical students in their discipline. Applicants should submit a detailed curriculum vitae, along with a few selected reprints; a statement of career goals; and an indication of current and long-term research plans, together with the names and addresses of three references, to:

Faculty Search Committee
Department of Microbiology and Immunology
Georgetown University Medical Center
3900 Reservoir Road, N.W.
Washington, DC 20007

Georgetown University is an Equal Opportunity/Affirmative Action Educator/Employer. Women and members of ethnic minorities are especially encouraged to apply.

RESEARCH TECHNICIAN needed to perform neuroanatomical and intracellular electrophysiological studies. Salary commensurate with experience. Send résumé and reference names/addresses via **FAX (317-274-7351)** to: **Drs. R Friedman** and **M. Pritz, Section of Neurosurgery, Indiana University School of Medicine.**

MEETINGS

Cancer Genetics & Tumor Suppressor Genes

August 16 - 20, 2000

Organized by:
Douglas Hanahan *(UCSF)*
David Livingston *(DFCI)*
Scott Lowe *(CSHL)*
Bruce Ponder *(Cambridge U.)*
Carol Prives *(Columbia U.)*
Terri Grodzicker *(CSHL)*

Keynote Speaker:

Arnold Levine,
The Rockefeller University

Topics:

- **Cancer Genetics**
- **Animal Models**
- **Control of Cell Cycle & Growth**
- **Transcription**
- **Apoptosis**
- **DNA Repair & Cancer Etiology**
- **Tumor Progression Models**
- **Tumor Suppressors & Oncogenes as Targets for Cancer Therapy**
- **Telomerase & Cellular Senescence**

Session Chairs

Anton Berns, Joan Brugge, Titia de Lange, Gerard Evan, Rick Fishel, Ed Harlow, David Housman, Tyler Jacks, Moshe Oren, Charles Sherr, Louise Strong, George Vande Woude

Oral and poster presentations will be selected on the basis of scientific merit. CSHL particularly encourages junior scientists to present their data at the meeting. Please register and submit abstracts online.

Abstract Deadline: May 24

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www.cshl.org/meetings/

POSTDOCTORAL RESEARCH OPPORTUNITIES IN DEVELOPMENTAL BIOLOGY AND NEUROBIOLOGY— MEDICAL COLLEGE OF WISCONSIN DEPARTMENT OF CELL BIOLOGY, NEUROBIOLOGY AND ANATOMY

PHOTORECEPTOR CELL BIOLOGY. Current work brings together the role of the cytoskeleton in rhythmic membrane turnover and the role of a photoreceptor-based circadian clock that controls transcription of downstream genes. The work requires application of biochemical, molecular, transgenic and cell biological techniques. Send or fax CV, references, and description of research ideas and interests to **Joseph C. Besharse, Ph.D.,** (ph. 414-456-8261, e-mail: jbeshars@mcw.edu) at the address/FAX below.

HEART DEVELOPMENT. Having identified endoderm-secreted proteins that regulate heart development, this laboratory is recruiting an individual to examine the effect of disrupted growth factor (BMP & FGF) signaling on cardiac myocyte specification and differentiation using genetically altered chick and mouse embryos. Another project addresses the effect of retinol binding protein gene ablation, in combination with vitamin A-deficiency, on this process. Send CV, references, and description of research interest to **John W. Lough, Ph.D.** (ph. 414-456-8459, e-mail: jlough@mcw.edu) at the address/FAX below.

NEURAL CREST DEVELOPMENT. Several job openings in two areas. (1) *Sympathetic neuron differentiation:* neurotrophin-mediated expression of the norepinephrine transporter (NET) gene; NET-induced signal transduction. (2) *Neural crest stem cell research:* Stem cell factor-mediated maintenance of the neural crest stem cell; expression of neurotrophin receptors; cell fate determination, and sensory neuron development. Ph.D. or equivalent degree and a solid background in cell biology and molecular biology required. Send curriculum vitae and list of 3 professional references to **Maya Sieber-Blum, Ph.D.,** (ph. 414-456-8465; e-mail: sieberbl@mcw.edu).

SENSORY NEURON FUNCTION GOAL: To understand the cellular and molecular mechanisms of pain transmission. We combine unique electrophysiological recording methods with molecular techniques to determine the cellular and molecular mechanisms underlying the function of mammalian sensory neurons after specific types of injury, disease and in knockout and transgenic mice. Laser Capture Microscopy is also combined with DNA microarray techniques to determine genes up or down regulated after injury and disease. Contact **Cheryl L. Stucky, Ph.D.** (ph. 414-456-8373, e-mail: cstucky@mcw.edu).

Department of Cell Biology, Neurobiology and Anatomy
Medical College of Wisconsin
8701 Watertown Plank Road
Milwaukee, WI 53226-0509

FAX: 414-456-6517
Website: http://www.mcw.edu/cellbio/

Affirmative Action/Equal Opportunity Employer

Plant Molecular Biologists

Rohm and Haas Company is expanding its biotechnology program. Our Biotechnology Research Group has an immediate opening for an experienced M.S. or B.S. plant molecular biologist and a new two-year postdoctoral appointment. These positions are located at our Corporate Research Center in Spring House, PA – near Philadelphia.

A major thrust of our interdisciplinary Biotechnology effort is to develop and commercialize gene-switching technology for plants, microbes, animals, and human therapeutics, based on proprietary chemistry and receptor biology. We view our broad technology platform as a competitive advantage for developing gene switches for various market applications. Currently, we are extending our programs in plant biotechnology by creating these two positions, which emphasize discovery and development of novel approaches to gene regulation in plants.

The successful candidates will have responsibility for planning and conducting experiments in optimizing gene switches in plants, developing applications for gene switching in genomics and trait enhancement, gene expression in plants, and other exploratory research. Qualifications include a M.S./B.S. or Ph.D. degree in plant molecular biology, molecular biology, or a related science, as well as research experience and publications illustrating strong scientific capability. Research independence, team skills, and the ability to thrive in an interdisciplinary setting are also essential.

Rohm and Haas offers a highly competitive compensation program, including relocation assistance and profit sharing. We are committed to the professional development of our Technology staff. For the M.S./B.S. position, candidates must be legally authorized for permanent employment in the U.S. Please forward your CV or resume to: **Technical Recruiting #100, Rohm and Haas Research Laboratories B-70, 727 Norristown Road, Spring House, PA 19477-0904 or by e-mail to techstaff@rohmhaas.com**

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ASSISTANT PROFESSOR OF ANATOMY AND CELL BIOLOGY POSITION IN BIOTECHNOLOGY
University of Saskatchewan

The Department of Anatomy and Cell Biology, University of Saskatchewan, invites applications for a tenure-track appointment at the rank of Assistant Professor, effective July 1, 2000. Areas of Departmental research include cell and molecular biology, developmental biology, and neurobiology. Applicants must have postdoctoral training and a strong research program involving the application of molecular biology/biotechnology in one of these areas. This is a new position established for the University's initiative in biotechnology. The appointee will assist in the teaching of introductory and advanced cell biology and participate in a course in biotechnology for non-science students; previous teaching experience in these areas would be an asset. Successful candidates will work both within their respective departments and the broader cross-campus interdisciplinary biotechnology program. An application, including curriculum vitae, names of three references, and a statement of previous teaching experience and research interest, should be submitted by April 1, 2000, to: **Dr. G. D. Burkholder, Department of Anatomy and Cell Biology, College of Medicine, University of Saskatchewan, 107 Wiggins Road, Saskatoon, SK S7N 5E5 Canada**. This position has been cleared for advertising at the two-tier level. *Applications are invited from qualified individuals, regardless of their immigration status in Canada. The University of Saskatchewan is committed to Employment Equity. Members of designated groups (women, aboriginal people, people with disabilities, and visible minorities) are encouraged to self-identify on their applications.*

PRECLINICAL FACULTY

Lake Erie College of Osteopathic Medicine (LECOM) invites applications to fill full-time, doctoral-level preclinical faculty positions in medical anatomy, biochemistry, microbiology, pharmacology, and physiology. Applicants should have excellent teaching skills with experience in medical school education. Applicants must also be prepared to take leadership roles and to help guide their respective disciplines into the 21st century. Faculty are expected to be active in research. Rank is based upon qualifications and experience; salary and benefits are competitive. Applicants should forward a curriculum vitae; brief summary of teaching interests and research plans; administrative philosophy; career objectives; and names, addresses, and telephone numbers of at least three professional references to: **Silvia M. Ferretti, D.O., Dean and Vice President of Academic Affairs, Lake Erie College of Osteopathic Medicine, 1858 West Grandview Boulevard, Erie, PA 16509**. Applications will be screened immediately and will continue to be accepted until all positions are filled. *LECOM is an Affirmative Action/Equal Opportunity Employer and encourages female and minority candidates.*

ENVIRONMENTAL POLICY

The Center for Environmental Studies, Center for Public Policy, and College of Humanities and Sciences at Virginia Commonwealth University are recruiting for an **ASSISTANT PROFESSOR** (tenurable) in environmental policy to be filled fall of 2000. The successful candidate will hold the Ph.D.; have the demonstrated ability to teach effectively at the undergraduate and graduate levels; and will be expected to develop an active, externally funded research program. Applicants should have a strong commitment to interdisciplinary instruction and scholarship in environmental science and public policy. Applicants should send a letter of application, curriculum vitae, teaching evaluations (if available), and three letters of recommendation to: **Dr. Greg C. Garman, Center for Environmental Studies, Box 843050, 816 Park Avenue, Virginia Commonwealth University, Richmond, VA 23284-3050**. Applications will be accepted through March 10, 2000. *VCU is an Equal Opportunity/Affirmative Action Employer. Women, minorities, and persons with disabilities are encouraged to apply.*

POSITIONS OPEN

MUSC
MEDICAL UNIVERSITY OF SOUTH CAROLINA

FACULTY POSITIONS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

The Department of Biochemistry and Molecular Biology at the Medical University of South Carolina will fill up to four tenure-track positions at the **ASSOCIATE PROFESSOR** (or advanced **ASSISTANT PROFESSOR**) level as part of a continuing expansion of the Department over the next two years. The Medical University of South Carolina offers a research environment with a strong tradition of interdisciplinary research in biological sciences, excellent laboratory facilities, opportunities to develop collaboration with clinical faculty, and a record of successful peer-reviewed research funding. Information about current biochemistry faculty and research interests is available on the Department's **website: www.musc.edu/BCMB**. Minimum qualifications include an M.D. or Ph.D. or equivalent, appropriate postdoctoral experience, evidence of scientific productivity and scholary achievement, and a commitment to teaching at the undergraduate and graduate level. While the specific area of research interest is open, candidates are expected to have a well-established, peer-review funded research program. Send curriculum vitae, a brief description of research and teaching interests, and three reference letters to: **Biochemistry Search Committee, Department of Biochemistry and Molecular Biology, 173 Ashley Avenue, Medical University of South Carolina, Charleston, SC 29425**. *The Medical University of South Carolina is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION. The Department of Pharmaceutical Sciences, College of Pharmacy, Idaho State University, invites applications for a nine-month, tenure-track **ASSISTANT/ASSOCIATE PROFESSOR** position. Successful candidate must hold a Ph.D. and have research emphasis in drug metabolism. Ability to teach in the areas of pharmacology and/or medicinal chemistry is required. Candidates able to maintain an extramurally funded research program with evidence of scholarly productivity and with experience in pharmacy education are preferred. The College of Pharmacy offers Pharm.D., M.S., and Ph.D. degrees. Interested individuals should submit an application letter containing a summary of research and teaching interests; curriculum vitae; and the names, addresses, and telephone numbers of three references to: **Adeboye Adejare, Ph.D., Chair, Pharmaceutical Sciences Search Committee, College of Pharmacy, Campus Box 8334, Idaho State University, Pocatello, ID 83209. E-mail: adejarea@otc.isu.edu**. The position will be available July 1, 2000, and will remain open until filled. Review of applications will begin March 15, 2000. *Idaho State University is an Equal Opportunity/Affirmative Action Employer.*

VISITING ASSISTANT PROFESSOR CELL BIOLOGY

Haverford College Biology (**website: www.haverford.edu/biology**) seeks a one-year leave replacement (Ph.D. required) for 2000–2001. Teaching responsibilities include a junior course in cell structure/function, contributions to a laboratory in microscopy, a senior seminar in an area of research specialty, and supervision of senior research. Send cover letter, curriculum vitae, names and telephone numbers of three references, and statement of teaching and research interests to: **Ms. Helene Blair, Biology Department Secretary, Haverford College, 370 Lancaster Avenue, Haverford, PA 19041** by Friday, March 3, 2000. *Haverford College is an Equal Opportunity/Affirmative Action Employer; women and minority candidates are especially encouraged to apply.*

POSITIONS OPEN

TENURE-TRACK POSITION

The Section of Leukocyte Biology in the Department of Pediatrics, Baylor College of Medicine, and The Institute of Biosciences and Bioengineering, Rice University, invite applicants for a tenure-track position at the level of **ASSISTANT PROFESSOR** with joint appointments at Baylor College of Medicine and Rice University. Candidates must have a Ph.D., M.D., or equivalent degree with a strong background in bioengineering and a strong interest in inflammation. Applicants are expected to develop or have previously established a funded research program in areas related to basic research in inflammation or immunology. A strong record of research accomplishments supported by publications in peer-reviewed journals is necessary. Send letter of application and a curriculum vitae to either:

Larry McIntire, Ph.D.
E.D. Butcher Professor and Chair
Institute of Biosciences and Bioengineering
Rice University
MS 144
6100 Main Street
Houston, TX 77005-1892

C. Wayne Smith, M.D.
Head, Section of Leukocyte Biology
Professor, Department of Pediatrics
Baylor College of Medicine
1100 Bates, Room 6014
Houston, TX 77030-2600

Baylor College of Medicine and Rice University are Equal Opportunity/Affirmative Action and Equal Access Employers.

BASIC MUSCULOSKELETAL SCIENTIST

The Department of Orthopaedics at the New Jersey Medical School invites applications for a **TENURE-TRACK FACULTY POSITION**. Applicants with research interests in all areas of orthopaedic science will be encouraged. We are especially interested in applicants with research programs in tissue engineering and the study of cell-material interactions. Applicants must have a Ph.D. or its equivalent and at least two years of postdoctoral experience. Currently, basic research efforts in the Department focus on the study of biomaterials for skeletal repair; the molecular biology and biomechanics of bone healing; and the molecular analysis of skeletal development. Deadline for applications is January 3, 2000. Applicants should send their curriculum vitae, the names of three references, and a statement of research interests to: **Fred F. Behrens, M.D., Chairman, Department of Orthopaedics, UMDNJ–New Jersey Medical School, Doctors Office Center, Suite 5200, Newark, NJ 07103.** *UMDNJ is an Affirmative Action/Equal Opportunity Employer, Minorities/Females/Handicapped/Veterans, and is a member of the University Health System of New Jersey.*

ASSISTANT PROFESSOR OF MEDICINE RENAL DIVISION WASHINGTON UNIVERSITY
School of Medicine

The Renal Division at Washington University School of Medicine seeks to recruit a Scientist to a tenure-track position. Candidate (M.D., Ph.D., or M.D./Ph.D.) should be well trained in and committed to a career in biomedical research and able to function independently, as demonstrated by prior publications and funding. We can provide an outstanding start-up package and protected time. For M.D. candidates, clinical training in nephrology is not essential. Candidates's science must be of high quality but need not be directly related to the kidney. Send a curriculum vitae and a brief summary of research plans to: **Marc R. Hammerman, M.D., Director, Renal Division, Washington University School of Medicine, Box 8126, 660 South Euclid Avenue, St. Louis, MO 63110**. *Washington University is an Equal Opportunity Employer/Affirmative Action Employer; Minorities/Females/Disabled/Veterans.*

SYMPOSIUMS

PENN STATE

19th Summer Symposium in Molecular Biology

The Protein and RNA Folding Problems: Sharing Perspectives
August 2-5, 2000, University Park Campus

Session I – Kinetics and Mechanism of Folding - a
William Eaton *(Natl. Inst. of Health)*
Daniel Herschlag *(Stanford Univ.)*
C. Robert Matthews *(Penn State Univ.)*
Tao Pan *(Univ. of Chicago)*

Session II – Theoretical and Computation Methods
Jayanth Banavar *(Penn State Univ.)*
John Moult *(Ctr. For Adv. Res. in Bio.)*
Vijay Pande *(Stanford Univ.)*
David Thirumalai *(Univ. of Maryland)*
Michael Zuker *(WA Univ. Sch. of Med.)*

Session III – Kinetics and Mechanism of Folding - b
Kevin Plaxco *(UC Santa Barbara)*
Ira Ropson *(Hershey Med. Ctr.)*
James Williamson *(The Scripps Res. Inst.)*
Sarah Woodson *(Johns Hopkins Univ.)*

Session IV – Thermodynamics and Energetics
David Draper *(Johns Hopkins Univ.)*
George Makhatadze *(Hershey Med.)*
Susan Marqusee *(UC Berkeley)*
Douglas Turner *(Univ. of Rochester)*

Keynote Address: "A Simple Model for Protein Folding" by Dr. George Rose, Johns Hopkins University

Plenary Lecture: "The Crystal Structure of the Large Ribosomal Subunit" by Dr. Peter Moore, Yale University

The Symposium will feature poster sessions. This year's program is organized by Drs. Philip Bevilacqua, John Desjarlais, and Kamal Rashid of Penn State University.

For more information contact Ms. Georgia Gasperich, Program Coordinator, 108 Althouse Lab, University Park, PA 16802 phone 814-863-1918, Fax 814-863-7024 or email: ghg2@psu.edu
Visit our website: http://www.bmb.psu.edu/deptpage/Summer_Symposium.htm

POSTDOCTORAL FELLOWSHIPS & STUDENTSHIPS AVAILABLE

Applications are invited from prospective postdoctoral fellows and M.Sc. or Ph.D. students interested in basic perinatal research in physiology, immunology, endocrinology or pharmacology.

- Postdoctoral fellows with excellent academic and publication records who have received their graduate degrees within the last three years will be considered.
- Graduate students will be assessed primarily on academic standings.

Members of the Perinatal Research Centre at the University of Alberta are conducting leading-edge research in a number of areas including:

- Placental function and perinatal infections
- Control of parturition
- Nerve-muscle development, electrophysiology
- Cardiovascular function in maternal & fetal systems
- Fetal heart metabolism and development
- Fetal growth
- Molecular aspects of uterine activation
- Anatomy and embryology

Successful candidates will be associated with the appropriate academic department of their choice.

For more detailed information, consult our homepage:
http://www.ualberta.ca/PERINATAL/

Please forward a letter of inquiry, CV, and most recent transcripts to:
Eileen Marco, Perinatal Research Centre, 220 Heritage Medical Research Centre
University of Alberta
Edmonton, Alberta
Canada, T6G 2S2
Tel: (780) 492-2765
Fax: (780) 492-1308
e-mail: eileen.marco@ualberta.ca

PERINATAL RESEARCH CENTRE
UNIVERSITY OF ALBERTA

Funded Postdoctoral Position-Immediately Available

An interdisciplinary biosensors research team in the Electrical Engineering Department at Stanford University is seeking a post-doctoral researcher to help develop and test sensors based on live, electrically active cells cultured on silicon integrated circuits. This group has a 10-year history with such sensors, and now is developing and testing a warning system for biological toxins.

Requirements include a strong background in cell culture techniques and electrophysiology, excellent oral and written communications skills, first-rate interpersonal and project planning skills, and a deep-set interest in interdisciplinary endeavors. Tasks include project management, establishing dose/response characteristics for cells, co-developing automated signal interpretation algorithms, field trials in the U.S. and abroad, mentoring graduate students, preparing publications/progress reports, and interfacing with our contractors. U.S. Citizenship is highly desired for participation in military field trials. Salary is in the $50k range, depending upon qualifications.

Please e-mail a CV and contact information for three references to: splewa@leland.stanford.edu

BIOGNOSIS

Biognosis is a growing biotechnology company located in Gaithersburg, MD. Specializing in human behavior and psychiatric genetics, Biognosis is currently seeking talented, driven individuals at the BS, MS and PhD levels to work in an entrepreneurial setting performing gene discovery & characterization using human clinical datasets.

Staff Scientists
Requires a PhD in molecular biology, genetics or computer science with a record of publications and experience in some or all of the following: nucleic acid and protein sequence analysis, sequence assembly and phylogenetic analysis, bioinformatics, methods of genetic linkage and linkage disequilibrium analysis.

Research Associates
Requires at least a BS with experience in some or all of the following: PCR, PCR product analysis, sequencing, hybridization and expression cloning, immuno-histochemistry, two-hybrid screens, protein expression, tissue preparation, staining and image analysis.

Biognosis, an equal-opportunity employer, offers competitive salaries and benefits. Please submit resumés for immediate consideration. By email: hresources@biognosis.com; By fax: (301) 921-6011; **By mail: Biognosis, Attn: HR-Science Ad, 209 Perry Parkway - Suite 13, Gaithersburg, MD 20877**

POSTDOCTORAL POSITION AVAILABLE

The Microbial Food Safety Research Unit, Agricultural Research Service, USDA, Dover, DE, is currently recruiting for a Postdoctoral Research Associate. The laboratory is located on the campus of Delaware State University. The scientist will perform hybridizations including *in situ* RT-PCR and immunohistochemistry to determine the mode of uptake, distribution and release of hepatitis A and Norwalk-like viruses from molluscan shellfish tissues. These viruses pose a public health risk to the consumer of raw or lightly cooked shellfish and a threat to U.S. aquaculture.

SPECIAL REQUIREMENTS:
Ph.D. in molecular biology, biochemistry, physiology or microbiology/virology is required prior to entrance on duty. The applicant should have a strong background in molecular biology and be familiar with tissue sectioning and processing. General knowledge of microscopic and histologic methods, physiology and microbiological principles is desirable. Must have the demonstrated ability to plan and conduct research and to publish research results. Salary commensurate with experience: $41,834 to $50,139 per year. Research Associates are eligible for health and life insurance benefits. There are certain citizenship requirements for this position: specifically, either a U.S. citizen, or a citizen of a country that has a defense treaty (e.g. NATO, SEATO, RIO) with the U.S., or a citizen of a country that has been specifically exempted by the U.S. Congress. For specific information on how to apply, contact Ms. Pat Shannon at (410) 651-6526. Submit applications to Dr. Gary Richards at: **USDA, ARS, Delaware State University, W.W. Baker Center, Dover, DE 19901 (302) 857-6419** or at **grichard@dsc.edu**). Applications must be received by April 15, 2000. *USDA/ARS is an equal opportunity employer.*

TWO TENURE-TRACK POSITIONS DEPARTMENT OF BIOCHEMISTRY
Biotechnology, Biochemistry
University of Saskatchewan

Applications are invited for a tenure-track appointment at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR** in the Department of Biochemistry, College of Medicine. This is a new position established for the University's initiative in biotechnology. Applicants should have a Ph.D. with a strong research interest in aspects of plant biochemistry and plant biotechnology. In particular, due to the location of the Canadian Light Source at the University of Saskatchewan, expertise in structural biology, protein engineering, or proteomics would be an asset. Duties will include participation in both the biochemistry and the interdisciplinary biotechnology programs and teaching at the undergraduate and graduate levels of biochemistry. The successful applicant is expected to have a strong research program and to obtain research funding from national granting agencies.

Applications are also invited for a tenure-track **ASSISTANT PROFESSOR**. The Department of Biochemistry is located in the College of Medicine but has additional teaching responsibilities in other health sciences, the life sciences, and in agriculture. Applicants must have a Ph.D. in plant biochemistry or a related field. The successful candidate should have a strong research potential. Experience in plant biotechnology and related areas is highly desirable. Duties will include research and teaching of biochemistry at undergraduate and graduate levels.

The closing date for receipt of applications is April 1, 2000, and the anticipated date of appointment is July 1, 2000. An application, including curriculum vitae, names and addresses of three references, and a statement of previous teaching experience and research interests should be sent to: **Dr. L. T. J. Delbaere, Head, Department of Biochemistry, College of Medicine, University of Saskatchewan, 107 Wiggins Road, Saskatoon, SK S7N 5E5 Canada. Telephone: 306-966-4360; FAX: 306-966-4390; e-mail: louis.delbaere@usask.ca**. These positions have been cleared for advertising at the two-tier level. *Applications are invited from qualified individuals, regardless of their immigration status in Canada. The University of Saskatchewan is committed to Employment Equity. Members of designated groups (women, aboriginal people, people with disabilities, and visible minorities) are encouraged to self-identify on their applications.*

ANNOUNCING THE START OF THE ANNUAL G. P. WILDER CHAIR IN BOTANY

The Department of Botany, College of Natural Sciences, seeks a **DISTINGUISHED BOTANIST** for the G. P. Wilder Chair. This position is available for a period up to 12 months and will be available annually beginning August 1, 2000. Applications are sought from individuals in any field of botany with expertise complementary to Departmental faculty. Primary duties include sharing of expertise through interactions with faculty and students in the Botany Department and offering a seminar series or course in their specialty area. Salary is competitive, and research support may be provided; arrangements will be tailored to the requirements of each Chairholder within the purposes and limits specified by the endowment. Additional information about this position and the Botany Department can be found at **website: http://www.botany.hawaii.edu**. Submit curriculum vitae, contact information (e-mail, telephone, FAX), and a statement of planned activities for the period of appointment to: **Dr. Sterling C. Keeley, Chairperson, Department of Botany, University of Hawaii at Manoa, 3190 Maile Way, Honolulu, HI 96822-2279**. The Search Committee will begin reviewing applications on March 1 for fall 2000 and September 1 for spring 2001. Applications received after these dates may not receive full consideration. Inquiries may be made to **e-mail: botany@hawaii.edu; FAX: 808-956-3923**. *The University of Hawaii at Manoa is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are strongly encouraged to apply.*

POSITIONS OPEN

TENURE-TRACK PEDIATRIC ONCOLOGIST LABORATORY RESEARCHER PEDIATRIC HEMATOLOGY/ONCOLOGY

The University of Wisconsin–Madison is recruiting a full-time, Board-certified pediatric Hematologist/Oncologist with strong laboratory interests and experience. This new Oncologist will have an excellent environment to establish a productive, independent research laboratory in our Department of Pediatrics as an **ASSISTANT PROFESSOR** in the tenure track. This individual would function as an Academic Clinical Oncologist in our Department of Pediatrics, working in concordance with our University of Wisconsin Comprehensive Cancer Center (UWCCC) and as an active member of the six-member Division of Pediatric Hematology/Oncology. Clinical responsibilities include one half-day clinic each week and approximately one month of inpatient attending yearly on our inpatient pediatric hematology/oncology/bone marrow transplant ward. Excellent opportunities for laboratory, clinical, and translational research exist within the UWCCC and through interactions with the Children's Cancer Group (CCG). Interests in immunooncology, drug development cancer virology, cancer genetics, stem cell transplantation, or gene therapy would fit well with ongoing research efforts underway within this division, cancer center, and campus. Madison is a wonderful, environmentally oriented university town and state capital, ranked number one in "livability" by *Money Magazine* in 1996 and 1998.

Send a curriculum vitae to: **Paul Sondel, M.D., Ph.D., Division Head, Pediatric Hematology/Oncology, Room K4/448 CSC, University of Wisconsin Comprehensive Cancer Center, 600 Highland Avenue, Madison, WI 53792. FAX: 608-263-4226; e-mail: pmsondel@facstaff.wisc.edu**.

Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer. Wisconsin Caregiver Law applies.*

ENDOWED CHAIR IN PERINATAL RESEARCH
University of Oklahoma Health Sciences Center

Department of Obstetrics and Gynecology is seeking an individual with a strong record of research productivity and funding to develop a perinatal research program. Collaboration with investigators and clinical faculty of Health Sciences Center is expected. Tenure-track position with appointment at **ASSOCIATE PROFESSOR** or **PROFESSOR** level. M.D., Ph.D., or equivalent degree required. Salary and benefits are competitive. Strong support of position by Provost, Dean, and Department Chair. Applicants should send a curriculum vitae, a brief description of current and future research interests, and the names and addresses of three references to: **Dr. Robert D. Foreman, Chair of the Search Committee, Department of Physiology, College of Medicine, The University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190. E-mail: robert-foreman@ouhsc.edu**. Review of applications will begin April 15, 2000. Anticipated starting date: September 2000. *Oklahoma University Health Sciences Center is an Equal Opportunity Institution.*

HEAD DIVISION OF SCIENCE/MATHEMATICS

Mississippi University for Women, admitting men since 1982 and ranked for academic excellence, invites applications for Head, Division of Science/Mathematics. Ph.D. in math, physical or biological science; administrative experience preferred; teaching required. Send letter of application, curriculum vitae, transcripts, and five references to: **Mississippi University for Women Personnel, Box W–1609, Columbus, MS 39701. Telephone: 662-329-7386; website: www.muw.edu**. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

HEAD, DEPARTMENT OF FOREST SCIENCE

College of Forestry, Oregon State University. Twelve-month, full-time tenured appointment as **FULL PROFESSOR**. Applicants are sought for the position of Department Head. The Department of Forest Science is located in newly constructed Richardson Hall and is one of the largest departments on the Oregon State University campus. The Department Head provides leadership for and administration of graduate teaching, research, and extended education programs involving 104 faculty and staff, 75 adjunct and courtesy faculty, and 118 graduate students. The incumbent also works with other academic units, government agencies, industry, and the public in pursuit of Department, College, and University goals. There also is the expectation the Department Head will devote a portion of their time to professional leadership on forest resource-related issues and scholarly activities. Applicants should have an earned Doctorate either in forestry or a closely related field in natural resources; must have a distinguished record of professional and scholarly achievement consistent with the qualifications for a tenured Full Professor; experience in forestry-related research and graduate teaching (or outreach education); administrative experience preferred; demonstrated breadth of experience and understanding of natural resources; ability to effectively communicate and work with diverse groups; and demonstrated creativity and forward thinking, capable of anticipating challenges and issues, and demonstrating an ability to stimulate and lead change. Salary commensurate with qualifications and experience. For full consideration, apply by April 14, 2000; position shall remain open until filled. To apply, submit a letter summarizing qualifications described in the full position announcement; résumé; and the names, addresses, e-mail addresses, and telephone numbers of five references to: **Dr. Stephen D. Hobbs, Department of Forest Science, Richardson Hall 321, Oregon State University, Corvallis, OR 97331-5752**. For additional information, **Telephone: 541-737-8477; e-mail: Stephen.Hobbs@orst.edu**. The full position announcement may be seen at **website: http://www.coforst.edu/cof/fs/**. *OSU is an Affirmative Action/Equal Employment Opportunity Employer and has a policy of being responsive to dual-career needs.*

UNIVERSITY OF KENTUCKY TENURE-TRACK POSITIONS
Spinal Cord and Brain Injury Research

The Spinal Cord and Brain Injury Research Center at the University of Kentucky College of Medicine invites applications for a tenure-track position at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. Applicants should have an M.D. and/or Ph.D. and postdoctoral research experience in neuroscience or a related discipline. Areas of particular interest include axon guidance. CNS regeneration, neural plasticity, neural precursor cells, neural tissue engineering, and neurotrophins. Additional new faculty will be actively recruited in these areas over the next few years, and successful applicants will be expected to join a growing interdisciplinary team interested in spinal cord and head injury research. The successful applicant will have an appointment in a basic science or clinical department in the College of Medicine. Physician/Scientists are encouraged to apply. Applications should include a curriculum vitae, statement of research interests and future directions, and the names and addresses of at least three references. The search committee will begin the review of applications on March 1, 2000.

Applications should be send to: **James W. Geddes, Ph.D., Dirctor, Spinal Cord and Brain Injury Research Center, Sanders-Brown Building, University of Kentucky, Lexington, KY 40536-0230. Telephone: 606-257-1412, ext. 254; FAX: 606-323-2866; e-mail: jgeddes@uky.edu.**

The University of Kentucky is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

Faculty, Trainees and Staff Positions in Toxicology

Center for Environmental Health Sciences

Department of Pharmaceutical Sciences

The University of Montana

The University of Montana is proposing to establish a new Center for Environmental Health Sciences (CEHS) within the Department of Pharmaceutical Sciences (subject to Regential approval) under the Directorship of Dr. Andrij Holian with the purpose of creating a highly interactive research center to address regional and national environmental health concerns. The Center's research focus areas include pulmonary and immunotoxicology, neurotoxicology, and molecular genetic toxicology. The current recruitment phase is to add up to six new investigators at the Assistant Professor level.

Candidates must hold a Ph.D. and/or M.D. degree in toxicology or related field (biology, pharmacology, genetics, biochemistry, chemistry, etc.) and have demonstrated excellence in areas that best complement the goals and needs of CEHS. Candidates will be expected to demonstrate the ability for establishing an independent research program and securing extramural funding. CEHS faculty will also be responsible for contributing to graduate and post-doctoral training programs, and instruction at the graduate and undergraduate levels within the School of Pharmacy and Allied Health Sciences (SPAHS). The faculty positions will offer competitive salaries, start-up and lab space (and state-of-the-art core facilities) and are available September 2000.

The CEHS is also in the process of recruiting postdoctoral trainees and graduate students (M.S. and Ph.D.) with interests in the above research areas. Post-doctoral applicants should forward a letter of intent, vitae, and three letters of recommendation. An immediate opening is available for a post-doctoral in mass spectrometry/proteomics. Graduate students should apply to the Department of Pharmaceutical Sciences (major = toxicology) and download application and guidelines at **http://www.umt.edu/grad/**. The CEHS is also recruiting staff personnel (B.S. and M.S.) with experience that complements the CEHS research areas.

The University of Montana is located in Missoula, a cosmopolitan Rocky Mountain community of 70,000. The city has been singled out in national publications for its high quality of life. Abundant recreational opportunities in local and regional state and national parks complement a thriving intellectual atmosphere.

Faculty candidates should send a letter of application, curriculum vitae, summaries of current research plans (3-5 pages) and/or abstracts of funded projects, and have three letters of recommendation forwarded by May 1st, 2000 to:

Charles M. Thompson, Professor of Medicinal Chemistry and Toxicology
Deputy Director of CEHS
Department of Pharmaceutical Sciences
The University of Montana
Missoula MT 59812

Applicants and references may forward their information and documents in electronic format as attachments to: **cmthomp@selway.umt.edu**.
The University of Montana is an Equal Opportunity/Affirmative Action Employer and encourages applications from women, Vietnam-era veterans and persons with disability.

POSTDOCTORAL POSITIONS AVAILABLE

Postdoctoral positions are available to study the molecular and cellular basis of Group B Streptococcal and encapsulated Haemophilus influenza infections. We are using a variety of in vitro and in vivo models to investigate novel virulence genes, host responses, and genetic exchange between bacterial species. Specific areas of interest focus on factors responsible for colonization and invasion.

The ideal candidates will have a strong background in bacterial genetics and host-pathogen interactions, and will have obtained a Ph.D. and/or M.D. Our laboratories are part of the Department of Infectious Diseases which has strong programs in diverse aspects of bacterial and viral pathogenesis. The support facilities and the research environment at St. Jude Children's Research Hospital are exceptional, with strong collaborative interactions between departments within St. Jude as well as affiliated programs in the Memphis area.

These positions are available immediately. Interested candidates should send a curriculum vitae and three letters of recommendation to: **Ellsabeth Adderson, M.D., Department of Infectious Diseases, St. Jude Children's Research Hospital, 332 North Lauderdale St., Memphis, TN 38105.**

www.stjude.org

Equal Opportunity Employer

Chair in Bioinformatics

Georgia Institute of Technology

The **School of Biology at Georgia Tech** invites nominations and applications for a new endowed chair in bioinformatics. We are seeking candidates who have achieved international prominence in areas such as structural or functional genomics. He or she will be expected to conduct a vigorous program of research, and participate in the undergraduate and the M.S. and Ph.D. teaching programs. Joint appointments with other units will be considered. The position is part of a significant expansion of the biological sciences including several endowed professorships, and new research buildings. Opportunities for collaborative interactions are available with faculty in the School of Chemistry and Biochemistry, School of Mathematics, College of Computing and the Petit Institute of Bioengineering and Biosciences. Applications should include a curriculum vitae, names of three references, and a letter describing research and teaching interests. Nominations and applications should be sent to **Bioinformatics Chair Search Committee, College of Sciences, Georgia Institute of Technology, Atlanta GA 30332**. *Georgia Institute of Technology is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR DEPARTMENT OF BIOLOGY BALL STATE UNIVERSITY MUNCIE, INDIANA

Tenure-track position available August 18, 2000. Responsibilities: teaching introductory biology and upper division classes, including limnology, ichthyology, and fisheries resources management; conducting and promoting student involvement in research, especially that dealing with the fisheries concerns of the region; actively participating in the academic community; commitment of excellence in teaching; competency in current approaches in aquatic biology and fisheries research. Qualified candidates will be considered as Director of the Aquatic Biology and Fisheries Center, Aquatic Biology and Fisheries option and liaison for the established partnership with the Indiana Department of Natural Resources all housed within the Biology Department. **Minimum qualifications:** earned doctorate in the biological sciences with expertise in fisheries; effective written and oral communication skills; demonstrated effective teaching ability. **Preferred qualifications:** post-doctoral experience; publications in subdiscipline and other evidence of scholarly activity. Send a letter of application, curriculum vitae, documentation of scholarly activity and teaching ability, transcripts, and three letters of reference to: **Chair, Search and Selection Committee, Department of Biology, Ball State University, Muncie, IN 47306.** Review of applications will begin March 10, 2000, and will continue until the position is filled. (www.bsu.edu)

Ball State University is an equal opportunity, affirmative action employer and is strongly and actively committed to diversity within its community.

POSITIONS OPEN

TENURE-TRACK POSITION
Theoretical Medium-Energy Physics, Large-Scale System Computational Physics, and Biophysics/Medical Physics

The Department of Physics and Astronomy at Arizona State University expects to add three tenure-track faculty members at the **ASSISTANT PROFESSOR** level. The areas of research specialization will be theoretical medium-energy physics, large-scale system computational physics, and biophysics/medical physics.

The successful candidate will be required to have a Ph.D. and postdoctoral research experience in the above-specified or closely related fields; evidence of teaching ability is desired. Start-up funds are negotiable. The successful candidates will be expected to obtain suitable external research funding. Teaching in the department's extensive undergraduate and graduate programs is an important component of the evaluation of faculty.

The ASU Department of Physics and Astronomy consists of about 40 full-time, tenured faculty with research interests in a wide variety of fields, including: observational and theoretical astronomy, experimental and theoretical condensed matter physics, electron microscopy, subatomic physics, biophysics, physics teaching, and science education.

The initial closing date for this position is March 17, 2000. Applications received after that date will be reviewed each Friday thereafter until the position is filled. Current information regarding the search is available at **e-mail: phyast.info@asu.edu**. Starting dates are flexible and may be adjusted to accommodate availability of funding. Candidates must submit a letter of application, a curriculum vitae, and identify three names of persons able to serve as references. All materials must be sent to: **Search Coordinator, Arizona State University, Department of Physics and Astronomy, P.O. Box 871504, Tempe, AZ 85287-1504.** *Affirmative Action/Equal Opportunity Employer.*

ASSISTANT/ASSOCIATE PROFESSOR
DEPARTMENT OF ANATOMY AND CELL BIOLOGY
University of Florida College of Medicine

The Department of Anatomy and Cell Biology in conjunction with the University of Florida Shands Cancer Center invites applications for a tenure-track faculty position at the Assistant or Associate Professor level, beginning on or after July 1, 2000. Applicants should have a Ph.D. and/or M.D. degree. The successful candidate will conduct independent, extramurally funded research in the area of molecular cancer cell biology and participate in the training of medical and graduate students. This position offers a competitive salary and start-up package. Applicants should send their curriculum vitae, a brief description of research interests, and three letters of recommendation by April 15, 2000, to:

William A. Dunn, Jr., Ph.D.
Search Committee Chairman
Anatomy and Cell Biology
P.O. Box 100235
Gainesville, FL 32610-0235

The University of Florida is an Equal Opportunity/Affirmative Action Institution.

ASSISTANT PROFESSOR, anatomy and physiology; tenure track, beginning August 2000. Ph.D. in anatomy/physiology and commitment to undergraduate teaching and research required. Teaching includes introductory anatomy and physiology courses with laboratory, development of upper-division course, seminar, and mentoring undergraduate research students. Candidates should be conversant with the values embodied in the tradition of Valparaiso University as a Lutheran community. Review begins 15 March 2000. Submit application, curriculum vitae, transcripts, teaching and research statements, and three letters of recommendation to: **Dr. David Scupham, Chair, Biology Department, Valparaiso University, Valparaiso, IN 46383-4694.** *Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR
UNIVERSITY OF ALASKA FAIRBANKS
School of Fisheries and Ocean Sciences (SFOS)
Fishery Industrial Technology Center (FITC)

Responsibilities: SFOS/FITC invites applications for a tenure-track faculty position at the Assistant Professor level in sustainable fish harvesting. The successful candidate will work closely with Alaska's marine resource users to help solve their specific seafood harvesting issues. This will include developing a funded research program in harvesting and ecosystem interactions as they relate to sustainable harvesting, while serving the needs of the coastal communities of Alaska. They will teach formal and informal classes, as well as training and supervising graduate students. Qualifications: Applicants should have an earned Ph.D. in fisheries, fishery oceanography, or a related field. The successful candidate should have expertise in experimental design, statistics, hydroacoustics, gear design, applied fisheries and bycatch issues, biomass estimation, and predator-prey interactions. A strong background in fish biology, behavior and school movement patterns, foraging theory, and population dynamics is very desirable. Experience with fishing gear types, shipboard techniques and equipment, and in identifying fish species is also crucial. Location: Based in Kodiak, Alaska. Salary: Starting at $42,000 plus benefits depending on experience (nine months; this already includes 9% Kodiak geographical cost-of-living adjustment). Position is tenure track in SFOS. Closing: 1 April 2000. Contact: Send curriculum vitae; name, address, telephone number, and e-mail addresses of three references; copies of representative publications and statements of teaching, research, and service interests that explain how your experience will assist you in meeting the responsibilities of the position to: **Dr. Scott Smiley, Director, UAF-SFOS-FITC, 118 Trident Way, Kodiak, AK 99615-7401. Telephone: 907-485-1500; FAX: 907-486-1540; e-mail: scott.smiley@uaf.edu.**

University of Alaska is an Affirmative Action/Equal Opportunity Employer and Educational Institution. In our efforts to diversify, we encourage applications from women and members of culturally diverse groups. Candidates must be eligible for employment under the Immigration Reform and Control Act of 1986. Your application for employment with University of Alaska is subject to public disclosure under the Alaska Public Records Act. This is a bargaining-unit position.

RESEARCH LEADER: The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), has an opening for a Supervisory Research Entomologist (Research Leader and Location Leader) for the Western Integrated Cropping Systems Research Unit in Shafter, California. The successful applicant will lead a group of four scientists conducting research to develop and improve cropping systems and improve management of cotton and other agronomic crops in the irrigated San Joaquin Valley and conduct personal research on the development of new technologies for control or elimination of important cotton pests, with emphasis on control of tarnished plant bug, aphids, mites, and white flies. Salary is commensurate with experience (GS–14 or GS–15, from $70,457 to $107,738 per annum). The announcement opens January 18, 2000, and closes February 29, 2000. The vacancy announcement may be viewed on the ARS home page, **website: www.ars.usda.gov/afm/hrd/resjobs**. See announcement ARS–X0W–0128. For application package, contact: **Denice Chambers; Telephone: 209-453-3005.** *U.S. citizenship is required. USDA/ARS is an Equal Opportunity Provider and Employer.*

Research company needs a **RESEARCH ASSISTANT**. Develop a collaboration research program with University of Michigan to study quantitative gene express using real-time fluorescence PCR. Develop high-resolution DNA/RNA quantitation with proprietary technique. Must have M.S. degree in biology and one year of relevant experience. To apply, please send your résumé to: **Biotronics Corporation, Human Resources Department, 50 Stedman Street 1A, Lowell, MA 01851.**

POSITIONS OPEN

UNIVERSITY OF ALASKA FAIRBANKS

The Department of Chemistry and Biochemistry and the Institute of Arctic Biology of the University of Alaska Fairbanks invite applications for a **TENURE-TRACK ASSISTANT PROFESSOR** of chemistry, with an emphasis in organic chemistry. We seek candidates with potential for effective undergraduate teaching and graduate student mentoring. Teaching responsibilities include two to three courses per year in organic chemistry and graduate student supervision. Also, the successful candidate will establish an active and externally funded research program that will complement existing research areas in natural products, chemical ecology, or neurosciences, or establish a new program relating to biological effects of environmental contaminants or other topic relating to life at high latitudes. Candidates must have an earned Doctorate in chemistry or closely related discipline. Postdoctoral research training is required. Undergraduate teaching experience is preferred. The University of Alaska offers excellent research support including NMR, GC-MS, computational chemistry, and DNA sequencing facilities. Send curriculum vitae; copies of all transcripts; statement of teaching philosophy; statement of research interests emphasizing one or more of the above topics; and three letters of recommendation by March 15, 2000, to: **Dr. John W. Keller, Department of Chemistry and Biochemistry, University of Alaska Fairbanks, Fairbanks, AK 99775-6160.** For more information, please visit **websites: http://www.uaf.edu/chem/** and **http://mercury.bio.uaf.edu/**.

Persons hired by the University of Alaska Fairbanks must comply with the provisions of the Federal Immigration Reporting and Control Act of 1986 and are expected to possess a valid Social Security card. The University of Alaska Fairbanks is an Equal Employment Opportunity/Affirmative Action Employer and Educational Institution. Women and minorities are encouraged to apply.

EDITOR, TECHNOLOGY
IEEE *SPECTRUM*

Spectrum, the flagship magazine of the Institute of Electrical and Electronics Engineers, Inc., is looking for a top-flight **EDITOR** to join its award-winning staff. Duties include writing feature stories and articles on electrotechnology, including computer software and hardware, and acquiring and editing feature manuscripts. Candidates should demonstrate a history of achievement in science/technology journalism and a nose for news. Position is in New York City. Some travel required.

Salary is commensurate with experience, and a broad range of benefits are available including: choice of medical/dental plans, 401(k) with company match, tuition reimbursement, flexible spending accounts, and company-paid life insurance. Please send a confidential résumé including a brief cover letter explaining your qualifications for the position, writing samples, references, and salary history to:

Human Resources, Department E039
IEEE
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331
E-mail: job-application@ieee.org
FAX: 732-981-1046

Check out our **website: www.ieee.org/about/hr**. *Equal Opportunity Employer; Minorities/Females/Disabled/Veterans.*

RESEARCH ANALYST BIOSTATISTICIAN involved with research in the area of immunology and infectious diseases. Will design and develop Phase I research protocols. Will perform data cleaning and monitoring and statistical analysis in the area of infectious diseases. Requirements include a Master of Science degree or equivalent in statistics, with strong statistical background. Send curriculum vitae to: **Dr. Terry Fenton, Frontier Science and Technology Research Foundation, 1244 Boylston Street, Suite 303, Chestnut Hill, MA 02467.** *Equal Opportunity Employer.*

NATIONAL INSTITUTES OF HEALTH (NIH)
NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM (NIAAA)

SIGNALING MECHANISMS IN LIVER REGENERATION

The Division of Intramural Clinical and Biological Research at the NIAAA invites applications for a tenure-track position. The candidate selected will be expected to develop an independent research program to study the cellular/molecular mechanisms involved in liver regeneration and their role as potential targets for alcohol-induced liver disease. The successful candidate will have documented experience in cytokine/growth factor/neurotransmitter signaling as it relates to live biology, expertise with relevant cell and molecular biological techniques, an outstanding publication record and, when applicable, evidence of previous grant support.

Applicants must have a Ph.D. and/or M.D. and should submit a curriculum vitae, bibliography, names of three references, and a brief research plan. Submittals postmarked no later than April 1, 2000 should be addressed to:

Ms. Kathleen Hanratty (OSD)
NIH, NIAAA, Bldg. 31, Room 1B58
31 Center Drive MSC 2088
Bethesda, MD 20892-2088

NIH is an Equal Opportunity Employer. Applications from women, minorities, and persons with disabilities are strongly encouraged.

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nature
immunology

Seeks two

ASSISTANT EDITORS

The publishers of *Nature* have announced the July 1st launch of *Nature Immunology*, an international monthly journal covering all aspects of immunology.

Nature Immunology will publish papers of the highest quality in all areas of immunology, reflecting the multidisciplinary nature of the field and providing a forum for communicating important advances to a broad readership. Informative and insightful News & Views, commentaries, letters, reviews and editorials will accompany this first class research.

The Editor of *Nature Immunology*, Dr. Linda Miller, is now ready to recruit two Assistant Editors. Applicants should have a strong research background in immunology, a broad understanding and interest in the field, excellent literary skills and an enthusiasm for and commitment to the communication of science.

This is an exciting opportunity to contribute directly to the development and launch of a major new journal with the backing of the Nature group. The Assistant Editors will work closely with the Editor on all aspects of the journal, including manuscript selection, commissioning and editing, and writing. Close contact with the immunology community will be essential, including travel to international meetings and conferences.

Based in our established central New York City office, the successful applicants will join a large and dynamic editorial and publishing team responsible for *Nature Genetics*, *Nature Structural Biology*, *Nature Medicine*, *Nature Biotechnology* and *Nature Neuroscience* and will enjoy a close working relationship with the London-based *Nature* and *Nature Cell Biology* teams.

To apply, please submit a CV, a short (700–900 words) News & Views-style article on an exciting and newsworthy recent development in any area of immunology, and a short cover letter explaining your interest in the post, to The Editor, *Nature Immunology*, Nature America, 345 Park Avenue South, New York, NY 10010 (fax 212.696.9752; email immunol@natureny.com) to arrive as soon as possible and **not later than February 25th 2000**.

Realize the Future of Medicine.

At Scriptgen, we are at the forefront of a new breed of bio-pharmaceutical companies that are changing the way new drugs are being discovered. Behind our success is a strong team of managers, scientists, corporate partners and investors with a common goal: Driving medicine forward.

Biochemist - Assay Development

Participate in highly collaborative interdisciplinary drug discovery programs. Establish and execute novel high throughput assays and assist in the elaboration of drug candidates. This position requires experience in assay development and the ability to troubleshoot novel strategies and technologies. Fluorescent assay development and RNA biochemistry experience a plus. Ideal candidate will have a BS/MS in biochemistry or related discipline and at least three years of laboratory experience in biochemical methods. **Job code AS08.**

Biochemist - Assay Technology Development

Develop new assay formats for our proprietary high throughput screening technologies. This position requires significant experience with fluorescent-based assays and RNA biochemistry. Familiarity with protein biochemistry and high throughput screening is strongly desired. Ideal candidate will have at least five-plus years of laboratory experience in biochemical methods. All degree levels will be considered. **Job code AS09.**

MS/BS Biochemist (HCV Group)

Develop and implement secondary biochemical assays for HCV targets including, but not limited to, cell-based and cell-free translation assays and RNA-dependent RNA polymerase activity assays. This position may also involve cloning, mutagenesis and RNA biochemistry. Ideal candidate will have at least two-plus years of laboratory experience in biochemistry and molecular biology including cloning, enzyme characterization, RNA biochemistry and tissue culture. **Job code BI01.**

Information Technology Services/ Cheminformatics Manager

Supervisory position with management responsibility for company-wide information systems and extensive small molecule compound library. Key functions of the group include supply of compounds to high throughput screening operation, physical management of library samples, analysis of compound diversity, library expansion, library quality control, application of bioinformatics for target identification and validation, and the application of cheminformatics in compound optimization. Requires a Ph.D. in computer science or chemistry and four-plus years or relevant/equivalent experience, cheminformatics/medicinal chemistry expertise (knowledge of chemical information systems: MDL, Daylight, MSI, Oracle or SAS software), database and automation proficiency, and demonstrated management skills. **Job code CM01.**

Drive medicine forward, advance genetic technology and earn a very attractive salary and benefits package. Curious about Scriptgen? Mail your resume to: Human Resources, Scriptgen Pharmaceuticals, Inc., 610 Lincoln Street, Waltham, MA 02451-2186. Fax: (781) 768-0040 E-mail: careers@scriptgen.com

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TENURE-TRACK POSITION EXPERIMENTAL MOUSE BIOLOGY

The Department of Biomedical Sciences in the College of Veterinary Medicine at Cornell University invites applications for a tenure-track faculty position at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. The successful candidate will be expected to develop an extramurally funded biomedical research program and contribute to departmental initiatives in mouse pathology. Applicants must possess a Doctoral degree in a biological field (Ph.D., D.V.M., M.D., or equivalent). Postgraduate training and/or experience in the generation, phenotyping, or experimental use of transgenically manipulated mouse models for scientific research is highly desirable.

Applicants should send a letter of interest, curriculum vitae, and the names of three references to: **Dr. James MacLeod, c/o Ms. Amy Pellegrino, Department of Biomedical Sciences, College of Veterinary Medicine, Cornell University, Ithaca, NY 14853-6401. E-mail: ap14@cornell.edu**. The screening of candidates will begin March 15, 2000, and will continue until a suitable candidate is identified. Rank and salary will be commensurate with the successful candidate's academic credentials and experience. *Cornell University is an Affirmative Action/Equal Opportunity Employer.*

DIABETES RESEARCHER

The Institute for Cellular Therapeutics (**website: www.louisville.edu/org/ict**) at the University of Louisville School of Medicine invites applications for a tenure-track **ASSISTANT** or **ASSOCIATE PROFESSOR** faculty position. Candidate should have a Ph.D. or M.D., and be expected to transfer or develop a nationally recognized and independently funded research program that incorporates molecular and cellular approaches to immunology research in diabetes. The primary responsibilities will be in research and research training. New research laboratories and competitive start-up packages are available, including an endowed salary.

Applicants should send a letter outlining career research goals, curriculum vitae, and the names of three individuals who can be contacted for letters of reference to: **H. Leighton Grimes, Ph.D., Chair, Search Committee, Institute for Cellular Therapeutics, University of Louisville School of Medicine, 570 South Preston Street, Louisville, KY 40202-1760**. Applications should be received by May 15, 2000, for full consideration. *The University of Louisville is an Affirmative Action/Equal Opportunity Employer.*

PH.D. PROGRAM MOLECULAR PHARMACOLOGY THE UNIVERSITY OF ILLINOIS

The Department of Pharmacology, College of Medicine at the University of Illinois at Chicago is actively recruiting highly qualified Ph.D. students. The Department provides an intellectually stimulating environment for graduate training where emphasis is placed on laboratory research. Research training is available in areas of molecular pharmacology, functional genomics, cellular signaling, receptor biology, immunopharmacology, and vascular and thrombosis research. The Department also has an NIH-funded training program in lung biology and pathobiology. The program provides a competitive stipend and assistantship to qualified candidates. A complete description of the Department, including faculty research areas and application forms, can be found on **website: http://www.uic.edu/depts/mcph.**

RESEARCH ASSOCIATE at The University of Chicago. NIH project in human DNA polymorphism and evolution. Large-scale sequencing, population genetics (especially coalescent theory), statistical, and computational skills required. Prior experience desirable. Annual salary from $26,000 to $28,000. Apply to: **Wen-Hsiung Li; e-mail: whli@uchicago.edu. Department of Ecology and Evolution, Chicago, IL 60637**. *The University of Chicago is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR NEW YORK UNIVERSITY SCHOOL OF MEDICINE Department of Biochemistry

The Biochemistry Department of New York University School of Medicine seeks an outstanding candidate to fill a tenure-track position at the level of **ASSISTANT PROFESSOR**. Areas of research currently represented in the Department include DNA replication, repair and recombination, signal transduction (ras/ran), cell cycle control, oxygen signaling, brain glutamate receptors, and protein folding. An X-ray crystallography group studies protein–DNA interaction. Applicants should hold a Ph.D. or M.D. degree, have at least two years of postdoctoral research experience, and a demonstrated record of productivity. The successful candidate will be expected to establish an independent research program and participate in teaching and other departmental academic activities. Applicants should submit a curriculum vitae, three letters of reference, and a brief summary of current and future research interests to: **Chair, Faculty Search Committee, Department of Biochemistry, New York University School of Medicine, 550 First Avenue, New York, NY 10016**. For information about the Biochemistry Department and New York University School of Medicine, please visit us at **website: http://www.med.nyu.edu/Biochem/HomePage.html.** *NYU is an Equal Opportunity Employer.*

MEDICAL HISTOLOGY. The Department of Biomedical Sciences, Ohio University College of Osteopathic Medicine, invites applications for a full-time, tenure-track **ASSISTANT PROFESSOR**. The primary teaching responsibility is to participate in team-taught microscopic anatomy for medical students. Starting date is September 2000. A Ph.D. or equivalent and postdoctoral research training are required. The research area is open, but quality research and teaching are required for tenure and promotion.

Ohio University has 19,000 students, which includes 2,000 graduate and 400 medical students. The University is in a rural setting in the foothills of the Appalachian Mountains, and the 24-year-old College of Osteopathic Medicine is integrated into the University in both teaching and research. The 33 faculty members of the Department also direct graduate (M.S. and Ph.D.) students in the Department of Biological Sciences.

Review of applications will begin on February 28, 2000; the search will remain open until the position is filled. Please submit a letter of application, curriculum vitae, statement of teaching and research interests, and three letters of recommendation to: **Jamie Remy, 304 Grosvenor Hall, College of Osteopathic Medicine, Ohio University, Athens, OH 45701-2979**. Further information about the position can be obtained from: **Robert Hikida; e-mail: hikida@ohiou.edu**. *Ohio University is an Affirmative Action/Equal Opportunity Employer.*

The Department of Biology at the State University of New York College at Oneonta invites applications for a tenure-track **ASSISTANT PROFESSOR** position beginning in the fall 2000 semester. The initial appointment will be for two years, with a requirement of 12 semester hours of teaching per semester. Qualifications: a Ph.D. in cell biology or cell physiology or related field and a zoological background required. Evidence of ability to teach and develop departmental courses at all levels; ability to integrate computer-based technology into the curriculum preferred. Duties include: Develop new courses or redesign existing courses, such as cell biology, cell physiology, general physiology; and teach general biology. To apply, please send a current curriculum vitae, a statement of teaching and research interest, original transcripts, and three letters of recommendation to: **Dr. William J. Pietraface, Chair, Search Committee, Department of Biology, Box S, State University College at Oneonta, Oneonta, NY 13820-4015**. Review of applications will begin immediately and will continue until the position is filled. *SUNY Oneonta is an Equal Employment Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

CELL BIOLOGIST

The University of Tulsa is seeking a tenure-track **ASSISTANT PROFESSOR** to begin fall 2000. The successful candidate must have a Ph.D., postdoctoral experience, a demonstrated potential to establish an independent, externally funded research program, and a commitment to undergraduate and graduate education. Competitive salary and start-up funds will be provided. The University is a private, comprehensive institution dedicated to excellence in education and research. Faculty in the Department of Biological Science have externally funded research in cellular, molecular, organismic, and environmental biology, and the department has excellent research support facilities that include core laboratories for DNA sequencing, flow cytometry, and electron microscopy. The Department of Biological Science offers degrees at the B.S., M.S., and Ph.D. levels. Review of applications will begin immediately and will continue until the position is filled. Applicants should submit a curriculum vitae, a statement of research and teaching interests, recent publications, and have three letters of recommendation sent to: **Cell Biology Search Committee, Department of Biological Science, The University of Tulsa, 600 South College Avenue, Tulsa, OK 74104-3189. Website: http://www.utulsa.edu**. *The University of Tulsa is an Equal Opportunity/Affirmative Action Employer.*

The Department of Pathology, Stanford University School of Medicine, is seeking a faculty member at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level with research interests relevant to the pathogenesis of human disease. Preference will be given to candidates whose research complements the Department's ongoing initiative to develop and apply the experimental and biocomputational tools of the genomics revolution to human pathology.

The successful candidate must have an M.D. and/or Ph.D. degree and will be expected to establish an independently funded research program at the cutting edge of modern genomics or proteomics. The appointment will be made in the University tenure track, whose faculty are engaged primarily in basic science or clinical research with some teaching responsibilities.

Interested individuals should send their curriculum vitae and a brief statement of their research plans and have three letters from references forwarded to:

Stephen J. Galli, Chair
Department of Pathology
Stanford University School of Medicine
300 Pasteur Drive
Stanford, CA 94305-5324

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

RESEARCH SCIENTIST TRANSGENIC MOUSE CORE FACILITY PURDUE UNIVERSITY CANCER CENTER

The NCI-designated Cancer Center at Purdue University has an immediate opening for a qualified individual to assume operational responsibility for the Cancer Center's newly expanded and fully operational Transgenic Mouse Core Facility (TMCF). The TMCF offers both knockout and conventional transgenic services to the Purdue University community. Responsibilities and duties for this position include the generation of transgenic mice by pronuclear injection, gene targeting in ES cells, and the derivation of chimeric mice, plus supervision of all support staff. The qualified candidate will have a M.S. or Ph.D. degree (Ph.D. preferred) and experience in both ES cell culture and transgenic mouse procedures, plus excellent communication and interpersonal skills. Applicants should send their curriculum vitae and the names of at least three references to: **TMCF Position, Purdue Cancer Center, Hansen Life Sciences Research Building, Purdue University, West Lafayette, IN 47907-1524**. See **website: http://www.pharmacy.purdue.edu/~ccenter/** for more information. *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

UNITED STATES FOOD AND DRUG ADMINISTRATION

• FDA CAREER OPPORTUNITIES•

THE FOOD AND DRUG ADMINISTRATION, CENTER FOR DRUG EVALUATION AND RESEARCH (CDER) IS RECRUITING * PHYSICIANS * SCIENTISTS * CONSUMER SAFETY OFFICERS * MATHEMATICAL STATISTICIANS * COMPUTER SPECIALISTS * to serve in the dynamic, highly challenging and innovative atmosphere of drug development and research. CDER's public health mission is to protect and enhance the health of the public through the review and evaluation of scientific data submitted by pharmaceutical manufacturers in support of investigational and new drug applications (IND/NDAs), render an approval or disapproval for human use, and monitor events on marketed drug products.

GENERAL INFORMATION: The following positions may be filled as civil service or U.S. Commissioned Corps which requires U.S. citizenship. Permanent U.S. residents can apply for Staff Fellowship appointment in physician, scientist and mathematical statistician positions. Graduates of foreign colleges/universities must provide proof of U.S. education equivalency certification. Employment opportunities offer competitive salaries and excellent benefits.

* **PHYSICIANS (Various medical specialties):** Evaluate data involving the animal testing and human clinical trials of new drugs to determine their safety and effectiveness. Basic qualification is a Doctor of Medicine or Doctor of Osteopathy. Graduates of foreign medical schools must be ECFMG certified. Board certification/eligibility in a medical specialty and experience in conducting clinical trials are highly desired for these positions. Civil Service Salary GS-14, $76,978 to $96,769, plus an additional Physician Comparability Allowance of $14,000 to $16,000 may also be paid.

* **SCIENTISTS:** Biology, Chemistry, Microbiology, Pharmacology, Pharmacokinetics, Toxicology, Epidemiology: Scientists evaluate portions of INDs/NDAs that pertain to their particular discipline. They determine the scientific validity of manufacturers' tests, drug safety and efficacy claims. A doctorate degree in the scientific discipline with at least two years postdoc experience is highly desired for these positions. Civil Service Salary GS-12/13, $51,204 to $79,155.

* **CONSUMER SAFETY OFFICERS:** Perform management and liaison responsibilities in conducting records maintenance, monitoring the work effort and advising review team members on regulatory requirements, and coordinating information with pharmaceutical industry officials. Qualifications; a degree or combination of education and experience which includes at least 30 semester hours in any combination of courses in the fields of biological science, chemistry, pharmacy, physical science, food technology, nutrition, medical science, epidemiology, engineering, veterinary medical science, or related scientific field. Project management experience in the health care/pharmaceutical industries is highly desired for these positions. Civil Service Salary GS-9/11/12, $35,310 to $66,564.

* **MATHEMATICAL STATISTICIANS:** Provide statistical support to the drug review divisions. Employ a broad variety of statistical procedures relevant to the regulatory and scientific preclinical and clinical drug development and approval decision processes. A doctorate degree in mathematics/statistics and experience in the design, performance and evaluation of clinical trials or related biomedical or pharmacokinetics investigations are highly desired for these positions. Civil Service Salary GS-11/12/13, $43,096 to $81,891.

* **COMPUTER SPECIALISTS:** Provide ADP infrastructure, application and technology services to CDER in support of automated drug review, administrative, data storage/retrieval and training processes. An undergraduate/graduate degree in computer science, information science, information systems management, mathematics, statistics, operations research, engineering, or course work that required the development and/or adaptation of computer programs and systems and provided knowledge equivalent to a major in the computer field, OR experience that demonstrated accomplishment of computer project assignments that required a wide range of knowledge and techniques pertinent to the position to be filled, such as experience in software development tools (Oracle Developer 2000, Oracle Designer 2000 and Java), server (DEC Alpha, WIN/NT, MS Windows), and web development tools. Civil Service Salary GS-9/11/12/13, $35,310 to $79,155.

HOW TO APPLY: Submit resume to on-site recruiter at the Science Career Fair or send resume with cover letter indicating that you are applying under **source code 100007** (Science Magazine/Career Fair Washington DC) to:

FOOD AND DRUG ADMINISTRATION • 7520 Standish Place, MPN1, Rm. 211, HFD-63 • Rockville, MD 20855
Attn: CDER Recruitment

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Molecular Pathology Product Manager

DAKO

This dynamic and high profile position will be responsible for heading the molecular pathology marketing program at DAKO. This position involves the coordination of molecular pathology activities within development, production and sales and marketing. It includes creating and implementing strategic and tactical marketing programs to support introduction and penetration of core market segments with automated test systems for nucleic acid analysis in tissues and cells. The individual will actively forge alliances within the diagnostics industry. Other roles include the preparation and implementation of business and marketing plans, development of marketing communications programs, contributions to product design specifications and the understanding of billing and reimbursement issues.

The successful candidate should have the following qualifications:

- Leadership skills and strong negotiation skills
- Ability to inspire teamwork and bring focus to a global project
- Excellent communicator and self driven
- Hands-on experience with molecular pathology techniques for nucleic acid analysis
- MBA or equivalent business experience
- BSc in a biological science
- Willingness to travel up to 40% of the time
- Strong familiarity with Internet applications, Excel, Word and Power Point

Please send or fax resumes to:

Human Resources
DAKO Corporation
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DAKO is a privately owned international company with more than 30 years experience in development, manufacturing and marketing of diagnostic systems and research products for immunohistochemistry, molecular pathology, flow cytometry, clinical immunochemistry and microbiology. It is our focus to continue improvement of cancer patient outcome by providing automated, predictive, diagnostic and prognostic systems solutions, the latest addition being the FDA-approved DAKO HercepTest for detection of HER2 overexpression in breast cancer tissue.

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ASSOCIATE BEHAVIORAL PHARMACOLOGIST

This position involves the evaluation of compounds in behavioral models of disease as part of a drug discovery team. A Bachelor's degree with an emphasis in behavioral neuroscience, behavioral pharmacology, physiological psychology, or a related discipline is required (Master's preferred). Extensive experience with rodent behavioral models of neurological and psychiatric diseases and a solid understanding of experimental design and data analysis are essential. Additional experience in small animal surgery and neuropharmacological and/or neuroanatomical techniques is also desirable.

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ABBOTT LABORATORIES
Quality Health Care Worldwide

Atlanta Research and Education Foundation has the following two openings, which are affiliated with the Emory University School of Medicine, Department of Orthopaedics. Please send curriculum vitae and list of three references to: **Dr. Louisa Titus; FAX: 404-728-7780; e-mail: ftitus@emory.edu. SENIOR RESEARCH SPECIALIST/ASSOCIATE**: Develop and optimize transduction processes for a preclinical gene therapy program. Prior experience with viral and nonviral transduction methodologies as well as mammalian cell culture essential. Applicant should have a broad background in standard cellular and molecular biology techniques. Experience with Western blots and ELISA preferred. The individual should possess a minimum of a Master's degree in an appropriate scientific discipline with three to five years of relevant experience. *AREF is an Equal Employment Opportunity/Affirmative Action/Americans With Disabilities Act Employer.* **GENE THERAPY PRECLINICAL TRIAL COORDINATOR**: Aid in design, execution, and documentation of preclinical studies. Applicant should have a broad background in physiology, cellular and molecular biology, familiarity with gene and cellular therapy, and a working knowledge of GLP procedures. Preclinical and/or clinical trial experience as well as animal handling and surgery a plus. The individual should possess a degree in an appropriate scientific discipline with three to five years of relevant experience. *AREF is an Equal Employment Opportunity/Affirmative Action/Americans With Disabilities Act Employer.*

WRITERS, TECHNOLOGY
IEEE *SPECTRUM*

Spectrum, the flagship magazine of the Institute of Electrical and Electronics Engineers, Inc., is looking for literate, sophisticated freelance writers working in electrotechnology, with special emphasis on communications, computers, the Internet, medical technologies, and robotics. Candidates should demonstrate a history of achievement in science/technology journalism, an interest in business, and a nose for news. Our freelance rates are competitive and commensurate with experience. Please send a résumé, a brief cover letter explaining your qualifications, and writing samples to:

Human Resources, Department FL
IEEE
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331
E-mail: job-application@ieee.org
FAX: 732-981-1046

Check out our **website: www.ieee.org/about/hr**. *Equal Opportunity Employer; Minorities/Females/Disabled/Veterans.*

VISITING ASSISTANT PROFESSORS
PHYSIOLOGY AND GENETICS

The Department of Natural Sciences at the University of North Florida invites applications for two nine-month visiting teaching positions, one in animal physiology and the other in genetics. Candidates must have a Ph.D. in biology, a strong commitment to undergraduate teaching, and interest in directing student research. The starting date for both positions is August 7, 2000. It is anticipated that these positions will be readvertised at the tenure-track level for fall 2001.

A letter of application, curriculum vitae, concise statements of teaching experience and research interests, undergraduate and graduate transcripts, and three letters of reference should be sent to: **Biology Search Committee, Department of Natural Sciences, University of North Florida, Jacksonville, FL 32224-2661**, by postmark deadline March 4, 2000.

University of North Florida is an Equal Opportunity/Equal Access/Affirmative Action Institution.

RESEARCH ASSOCIATE POSITION
TEMPORARY, ANNUALLY RENEWABLE APPOINTMENT
Department of Medicine
Gastroenterology Division

Duties: Isolate rearranged regions of DNA and perform genetic mapping and characterization of the DNA rearrangements in esophageal adenocarcinoma and its premalignant condition of Barrett's esophagus. Improve current methods of performing primary cell culture and immortalization of specimens of these conditions. Perform computer analysis of these regions, using existing programs, and use genomic databases to further characterize the rearranged regions. Correlate these regions with significant regions and genes in other types of adenocarcinoma. Essential academic preparation: Ph.D. or M.D. with at least one year of postdoctoral research training. Essential experience: Experience with the techniques of cell culture, general molecular biology, and computer-based analysis. Knowledge of and interest in cancer biology.

Send applications to:

Lance Ferrin, M.D.
University of Minnesota
Division of Gastroenterology, Hepatology, and Nutrition
420 Delaware Street, S.E.
Box 36
Minneapolis, MN 55455

Applications will be reviewed upon receipt, and the position will remain open until filled.

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

DIRECTOR
MICROSCOPY FACILITY

The Department of Cell and Molecular Biology seeks an individual with expertise in modern light microscopic techniques to direct the Cell Imaging Facility and to work closely with an active group of PIs from numerous departments in the Medical School. This modern facility has two TEMs and all ancillary equipment, two confocal microscopes, a deconvolution microscope, and several light microscopes equipped with advanced digital imaging capabilities. The Director will oversee the facility and guide its development by implementing cutting-edge techniques, working closely with researchers, and helping write instrumentation and other grant proposals. The Director should be familiar with confocal and digital imaging techniques, microinjection, visualization of living cells containing fluorescent probes, photobleaching, and fluorescence *in situ* hybridization. This is an exciting opportunity to work closely with top researchers during a rapid phase of research development in the basic biomedical sciences. Qualifications: Ph.D. degree and three or more years of relevant experience. Salary is commensurate with experience. Send letter, résumé, and names of three references to: **Dr. Ed Kuczmarski, Cell and Molecular Biology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL. FAX: 312-503-0954; e-mail: e-kuczmarski@nwu.edu**. Closing date for receipt of applications is March 10, 2000.

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

RESEARCH ASSOCIATE POSITION is available immediately to study secondary metabolites in plants. Qualifications: M.S./Ph.D. in life sciences/chemistry with experience in extraction, separation, and identification of active compounds in plants. Skills required include HPLC, column chromatography, and NMR. Experience in plant cell culture is highly desirable. Please send letter of application, résumé with names of three references, and official transcripts by March 15, 2000, to: **Dr. Shiyou Li, Arthur Temple College of Forestry, Stephen F. Austin State University, Nacodoches, TX 75962 U.S.A. E-mail: lis@sfasu.edu.**

RESEARCH ANALYST

Major Midwest law firm is seeking applicants for the position of Research Analyst. Duties include the review and analysis of medical literature on a variety of topics in the context of pharmaceutical product liability litigation. Position also requires review and analysis of medical records and the preparation and communication to nonscientists of analyses of medical issues. Position may require some travel. This is a high-intensity position, which emphasizes practical application of scientific knowledge and requires a result-oriented and self-motivated individual, while offering a competitive salary and excellent benefits. The position provides a unique opportunity for scientists to apply their skills outside the area of basic research.

This position requires an outstanding academic record and a graduate degree in biological, life, or biomedical sciences. A working knowledge of pharmacology and/or epidemiology is preferred but not required. Excellent communication skills, both verbal and written, are essential. No legal education or experience required, but outstanding interpersonal skills are a must.

Please send a letter of application, complete college transcripts, a personal résumé, and references to: **Employment Supervisor, Shook, Hardy & Bacon L.L.P., One Kansas City Place, 1200 Main Street, Kansas City, MO 64105-2118. FAX: 816-421-5547.**

FULL OR ASSOCIATE PROFESSOR
MASS SPECTROMETRY
UNIVERSITY OF KENTUCKY

The Department of Chemistry at the University of Kentucky is seeking an experienced individual with an internationally recognized research program focused on any area of mass spectrometry. Qualified applicants should have a demonstrated excellence in teaching, abundant publications, and a strong record of obtaining extramural funding. The person could use the currently available mass spectrometry facility that includes three new spectrometers, one of which is a four-sector, high-resolution instrument. Substantial funding for additional equipment, including a budget for technicians and/or postdoctoral support, may also be possible depending upon the qualifications of the applicant. To apply, submit a curriculum vitae, publication list, and funding history to: **David Atwood, Department of Chemistry, The University of Kentucky, Lexington, KY 40506-0055**. The deadline for receipt of applications is May 1, 2000, with a possible start date of August 1, 2000. Feel free to call **Telephone: 606-257-7304** or send an **e-mail: datwood@pop.uky.edu** if you would like additional information before applying. *The University of Kentucky is an Equal Opportunity Employer and especially invites and encourages applications from women and underrepresented minorities.*

BIOLOGY/GENETICS. Applications are invited for a tenure-track **ASSISTANT PROFESSOR** position to start August 2000 in the College of Liberal Arts at Florida Atlantic University's Davie Campus. Candidates must have a Ph.D. in biological science, with postdoctoral and teaching experience preferred. Area of research specialty should have experience in applying molecular approaches to integrative problems at the cellular, organismal, and/or population levels. Teaching responsibilities will include courses in the area of genetics, evolution, and a graduate course in the area of specialization. Candidates are expected to develop a strong, externally funded research program that promotes scholarship and involves both undergraduate and graduate students. Send curriculum vitae; representative reprints; statement of teaching and research interests; and arrange for three letters of reference to be sent by March 6, 2000, to: **John D. Baldwin, Chair, Genetics Search Committee, College of Liberal Arts, Florida Atlantic University, 2912 College Avenue, Davie, FL 33314**. Inquiries regarding position may be addressed to **e-mail: jbaldwin@fau.edu**. *Florida Atlantic University is an Equal Employment Opportunity/Access/Affirmative Action Institution.*

The Cure Is Out There.

At SUGEN, we foster a creative, energetic and team-oriented atmosphere to develop small molecule drugs using renowned drug discovery techniques. Our continued success has created a great opportunity in our state of the art South San Francisco facility for dedicated scientists and researchers to join our multi-disciplinary R&D team.

Scientist, Cell Biology

The candidate will supervise a laboratory responsible for the performance of functional cellular assays to evaluate small molecule inhibitors of signal transduction targets. This will involve supervision of staff, and analysis and reporting of data to project teams. The candidate will also assume responsibility for management of a Drug Discovery project. The candidate should have a Ph.D. in Cell Biology, Molecular Biology, or a related field, and at least 2 years of industrial and supervisory experience. Expertise in cellular assays, data analysis and the drug discovery process is essential. Experience with project management and/or oncology would be considered a significant asset. (Job Code: KL50365-SCI)

Associate Scientist/Scientist, Cell Biology

You will be responsible for the development of cell-based assays for characterization of novel drug leads. This will involve engineering and characterization of cell lines and development of quantitative assays for testing of synthetic inhibitors of signal transduction targets. These activities will be performed utilizing techniques of molecular and cellular biology. You will also supervise corporate cell culture support activities. Candidates must possess a Ph.D. in Cell Biology, Molecular Biology, or a related field, and 2 years of postdoctoral experience. Expertise in signal transduction and mammalian cell culture is essential. Experience in assay development for drug discovery and/or cell culture facility management would be advantageous. (Job Code: KL-SCI)

Associate Group Leader, Discovery Chemistry

You will lead 2 chemists in our discovery chemistry group to engage in the design and synthesis of novel chemical scaffolds as tyrosine kinases and phosphatase inhibitors. Candidates must possess a Ph.D. in synthetic organic chemistry; at least 5 years of drug discovery industry experience in organic synthesis; and hands-on experience applying modern drug discovery principles, such as combinatorial chemistry, metabolism, drug-likeness and molecular modeling. The position requires proven success with organic synthesis (which should be supported by publication); a solid understanding of modern analytical tools and purification techniques, such as NMR, MS, HPLC, TLC, crystallization and column chromatography; in-depth knowledge of modern chemical informatics, such as chemical database searching; and excellent problem-solving, leadership and written/verbal communication skills. (Job Code: CT50354-SCI)

We will reward you with an attractive compensation and benefits package that includes a 1st class pension plan, a generous profit sharing/bonus program, weekly happy hours (TGIF), and a fun, collaborative work environment that encourages creativity and achievement. Please forward resume and cover letter to: **SUGEN, Inc, HR Department, Attn: (Job Code: ____), 230 East Grand Avenue, South San Francisco, CA 94080; fax: (650) 553-8301; email: jobs@sugen.com** *(MS Word docs only, please). EOE*

SUGEN

www.sugen.com

Carnegie Museum of Natural History

Pittsburgh, Pennsylvania

Curatorial Opportunities 2000

Curatorial Position in Systematic Botany
Applications from scientists with Ph.D. are invited for the position of Assistant or Associate Curator in the Section of Botany, particularly from candidates having interests in broad evolutionary problems and integrating morphological and molecular approaches. Desirable qualifications also include external funding for research and experience in curation, public education, and exhibits.

Curatorial Position in Botany/Paleobotany
Applications from scientists with Ph.D. are invited for the position of Assistant or Associate Curator in the Section of Botany, particularly from candidates having interests in systematics, biogeography, and paleoclimatology based on integrative study of modern and paleobotanical collections. Desirable qualifications also include external funding for research and experience in curation, public education, and exhibits.

Curator in Malacology and Invertebrate Paleontology
Applications from scientists with Ph.D. are invited for the position of Assistant or Associate Curator to oversee the Section of Malacology and Invertebrate Paleontology, particularly from candidates with research interests in systematics, biogeography and paleoclimatology and encompassing fossil and recent collections. Desirable qualifications also include external funding for research and experience in curation, public education, and exhibits.

Applicants should send curriculum vitae, addresses of three references, reprints, and letter describing professional goals by 1 March 2000 to: **Bradley C. Livezey, Dean of Science, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, PA 15213.**

ANNOUNCEMENTS

Staff Scientist/Toxicologist Vacancy
National Institutes of Health

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

The Toxicology Operations Branch, National Toxicology Program (NTP), is recruiting to fill a non-laboratory position of Toxicologist/Staff Scientist. The staff scientist is expected to have expertise in toxicology or a related discipline. The successful applicant will serve as a study scientist in the General Toxicology Group and will characterize the biological-toxicological effects from exposure to specifically assigned chemicals and/or agents; plan and provide scientific oversight in the conduct of laboratory studies; evaluate and publish results and serve as a resource of expertise regarding the toxicology of the specified chemicals or groups of chemicals assigned.

Minimum qualifications include an M.D., D.V.M. or Ph.D. or equivalent and at least 3 years postdoctoral experience in toxicology or a directly related field. For additional information concerning this position, contact Dr. Rajendra Chhabra at 919-541-3386 chhabrar@niehs.nih.gov or fax 919-541-4255. Applications from women and minority groups are particularly encouraged. The initial appointment is for five years and is renewable every five years indefinitely. Salary commensurate with background. Interested parties should submit a curriculum vitae, bibliography, brief statement of research interests, and arrange for three letters of recommendation to be sent by March 17, 2000, to:

Ms. Julie Manyik
Human Resource Management Branch (HNV 99-49)
National Institute of Environmental Health Sciences
P.O. Box 12233 (MD EC-11)
Research Triangle Park, NC 27709
919-541-3283 FAX: 919-541-3659
E-mail: manyik@niehs.nih.gov

NIEHS/NIH is an Equal Opportunity Employer

PRINCIPAL INVESTIGATOR

Stem Cell Laboratories is a biotechnology company located in metropolitan New York that is dedicated to the development of human stem cell-based therapeutics. We are looking for an energetic and innovative Principal Investigator to lead a research team working on human stem cell isolation, lineage commitment, differentiation, *ex vivo* expansion, and transplantation. The ideal candidate would have a strong background in both molecular biology and CNS and/or skin stem cell biology. To qualify, candidates are required to have a Doctorate degree (Ph.D. or M.D.) in a related field and two to three years of experience in academic or biotechnology industries. Good presentation skills and the ability to work closely with collaborators in a dynamic research environment are a must. Stem Cell Laboratories offers its employees an outstanding compensation package, which includes a comprehensive benefits package, stock options, and 401(k). For immediate and confidential consideration, please send curriculum vitae including salary requirements, summary of past accomplishments, and the names of references to: **Stem Cell Laboratories, 381 Fifth Avenue, Second Floor, New York, NY 10016. FAX: 212-684-8947; e-mail: stemcell@bway.net**. No agencies or phone calls, please.

RESEARCH SCHOLAR

Located in Washington, D.C., this position will develop a research portfolio on issues relating to the nation's research and development enterprise and its relation to desired social outcomes. Responsible for developing research concepts and methods, assembling and leading research, communicating concepts and results in scholary journals and the popular press, collaborating on developing fund-raising strategies, and exercising administrative oversight in an autonomous research program.

Qualifications: Ph.D. in relevant field; eight to 10 years of experience in science and technology, public policy, and social outcomes, including relevant work experience in the public sector; prior research and publications in these fields; fund-raising experience; demonstrated capability to generate and complete new projects; demonstrated capability to communicate with lay audiences, including policy makers.

We will start screening immediately. Send curriculum vitae to: **Office of the Executive Vice Provost, Columbia University, 205 Low Library, MC 4312, New York, NY 10027**. *We take Affirmative Action toward Equal Employment Opportunity.*

The Molecular Biology Program in the College of Biology and Agriculture at Brigham Young University is searching for a **MOLECULAR BIOLOGIST** for a full-time, tenure-track faculty position to begin September 1, 2000. The successful candidate will be expected to teach undergraduate and graduate courses in molecular biology and develop an externally funded research program. A Ph.D. degree (or equivalent) and postdoctoral experience are required. Qualified scientists specializing in all areas of molecular biology are encouraged to apply. Send only letter of interest and one-page curriculum vitae at this time to: **Daniel J. Fairbanks, College of Biology and Agriculture, Brigham Young University, Provo, Utah 84602. E-mail: Daniel_Fairbanks@byu.edu** before March 1, 2000. *Brigham Young University, an Equal Opportunity Employer, is sponsored by The Church of Jesus Christ of Latter-Day Saints and requires that all faculty members observe Church standards, including strict grooming, moral, and health codes. Members of the sponsoring Church are encouraged to apply.*

Four **POSTDOCTORAL POSITIONS** in advanced dental sciences research. Areas include cell and molecular biology, immunology, endocrinology, microbiology, biochemistry, craniofacial development, and dental sterilization. Postdoctoral degree in dentistry or biological sciences and *U.S. citizenship or permanent residency required.* Apply to: **D. V. Cohn, University of Louisville, Cell Biology, Louisville, KY 40292. Telephone: 502-852-1299; e-mail: dvcohn@louisville.edu.**

POSITIONS OPEN

Corixa Corporation is a leading-edge biotechnology company based in Seattle, Washington, and dedicated to the discovery of vaccines for the treatment of cancer and infectious diseases. We currently have two great opportunities available at our Hamilton, Montana, location.

ASSOCIATE SCIENTIST 2000–09

We currently have an Associate Scientist position available for a person to provide analytical support in order to facilitate the development of new pharmaceutical products. This will include but is not limited to basic investigative work with regard to analytical methods, developing analytical assays and validating analytical assays for quality control, and FDA requirements for potential pharmaceutical products. This position includes problem solving, troubleshooting instrumentation and methods, making detailed observations, and documentation of development work. Successful candidates will have a minimum of two to five years of experience and a Ph.D. in analytical chemistry. Technical skills required include GC, HPLC, UV–Vis spectrophotometer, FTIR, computer skills (Excel, Word, and Waters Millenium chromatography data acquisition and control software). Knowledge of statistics needed.

POSTDOCTORAL 1999–67

We currently have a Postdoctoral opening available for a person to conduct synthesis of various glycolipids and glycopeptides in support of the company's SBIR Phase II efforts on synthetic vaccine models and AGP process development. Successful candidates need a Ph.D. in organic chemistry, strong theoretical background, and relevant laboratory experience in modern synthetic organic chemistry. Desire experience in carbohydrate chemistry, especially glycolipid/glycopeptide synthesis and purification.

Corixa offers an attractive compensation and benefits package and a progressive work environment. Please apply by March 3, 2000, to: **Corixa Corporation, Attention: Position Number, 553 Old Corvallis Road, Hamilton, MT 59840. FAX: 406-363-6129; website: www.corixa.com**. *Equal Opportunity Employer.*

BEHAVIORAL ECOLOGY/ CONSERVATION BIOLOGY OHIO STATE UNIVERSITY

The Department of Evolution, Ecology, and Organismal Biology seeks a Behavioral Ecologist with a strong interest in conservation biology for a tenured or tenure-track appointment at the **ASSOCIATE** or **ASSISTANT PROFESSOR** level. The successful candidate is expected to maintain a vigorous, extramurally funded research program involving molecular approaches to the study of the evolution and ecology of behavior. It is also expected that this person use the results of such research to address problems in conservation biology. Teaching responsibilities will include participation in undergraduate core sequences in ecology and evolutionary biology and a graduate-level course in the candidate's area of expertise. Advising of graduate students and participation in the Department's governance and outreach programs are also expected. Candidates must have an earned Ph.D. in an appropriate area of biological sciences, postdoctoral research experience, and a record of significant research accomplishments. The position is available October 1, 2000. Application materials should include a current curriculum vitae, statements of research interests and teaching philosophy, reprints of recent research, and the names and addresses (including e-mail) of three references. Review of applications will begin on March 10, 2000, and will continue until a suitable candidate is identified. Send all materials to: **Professor Allison A. Snow, Chair, Behavioral Ecology Search Committee, Department of Evolution, Ecology, and Organismal Biology, 1735 Neil Avenue, Columbus, OH 43210 U.S.A.** *Ohio State University is an Equal Opportunity Employer. Women, minorities, persons with disabilities, and Vietnam-era veterans are encouraged to apply.*

POSITIONS OPEN

PLANT BIOLOGIST. The Reed College Biology Department invites applications for a nine-month sabbatical replacement position, beginning in the fall of 2000. A Ph.D. and demonstrated excellence in teaching are required. The successful candidate will direct year-long senior theses and teach a semester lecture-laboratory course and a semester lecture-only course. (S)he will also participate in a team-taught course in introductory biology. The courses may cover plant physiology, plant diversity, plant evolutionary biology, or plant ecology, but the exact topics are flexible and will be based on the expertise of the appointee. We seek a Biologist committed to teaching and research in the undergraduate environment. Reed College is a selective liberal arts institution with a distinguished record of educational accomplishment and a strong commitment to scholarship (**website: http://web.reed.edu/**). A curriculum vitae, statement of teaching and research interests, pertinent reprints, and three letters of reference should be sent by March 15, 2000, to: **David Dalton, Plant Biologist Search Committee Chair, Biology Department, Reed College, Portland, OR 97202-8199**. *Reed College is an Equal Opportunity Employer.*

CLINICAL PROJECT MANAGERS

Location: New Jersey (Princeton).

Qualifications: We need B.S. in life science and four years of experience in clinical research. An understanding of regulatory environment (FDA, ICH, GCP), monitoring, data management, and basic statistics is essential. International experience and language skills are a plus.

Duties: Plans, directs, and coordinates the clinical project activities to ensure that the goals of clinical trials are accomplished within the prescribed time frames and funding parameters.

Galderma, a subsidiary of L'Oreal and Nestle, is a leader in the research, development, and marketing of dermatological products. As a result of continuing growth, Galderma has opened a new facility in the Princeton area. We are looking to add an **IT TECH SPECIALIST** to our staff. For consideration, please send your résumé with salary history to: **Galderma Research and Development Inc., Attention: Human Resources, 5 Cedar Brook Drive, Cranbury, NJ 08512. FAX: 609-409-7725**. *Equal Opportunity Employer; Minorities/Females/Disabled/Veterans.*

The American Institute of Biological Sciences, a nonprofit professional association in Washington, D.C., seeks an individual to serve as **EDITOR-IN-CHIEF** of its flagship peer-reviewed monthly publication, *BioScience* (in print and on-line, see **website: www.aibs.org**), and Manager of its Publications Department. Reports to the Executive Director/Publisher. Responsible for all aspects of content, production, and performance. Requires a strong biology background, preferably Ph.D., and a minimum of five years of experience in STM publishing. Requires an understanding of journal/magazine editing, peer review, journalism, news writing/processing, freelancers, graphics, composition, printing, on-line publishing, product development, and the publishing industry. The successful candidate will be a team-oriented leader/innovator who thrives in a fast-paced environment and seeks growth beyond the status quo. Excellent benefits include health care/retirement plan. Send cover letter, résumé, writing samples, salary history, and salary requirements to: **Dr. Richard O'Grady, Executive Director, AIBS, 1444 Eye Street, N.W., Suite 200, Washington, DC 20005. FAX: 202-628-1509; e-mail: rogrady@aibs.org.**

POSTDOCTORAL POSITIONS available to study K+ channels and/or G-protein-coupled receptors in gut neurons: relevance to sensory transmission. Experience in intracellular or whole cell patch recording and/or molecular biology is required. Send or FAX curriculum vitae and three references to: **Dr. Annette Kirchgessner, Department of Physiology and Pharmacology, Box 29, SUNY HSC Brooklyn, 450 Clarkson Avenue, Brooklyn, NY 11203. FAX: 718-270-4661.**

Postdoctoral Fellowships

The UNC Lineberger Comprehensive Cancer Center of the University of North Carolina at Chapel Hill will have openings in 2000 in its training program, now in its 25th year, for persons completing graduate studies to train with excellent investigators in basic research in tumor virology, molecular carcinogenesis, molecular therapeutics, cancer cell biology, genetics, tumor immunology, and research that interfaces with clinical and physical sciences. Training is available in DNA repair, replication, and mutagenesis; regulation of cellular proliferation and differentiation including growth factors, signal transduction pathways, and intercellular communication; molecular immunology; molecular genetics and epidemiology of cancer; and human disease models and gene therapy. Unique training resources and core facilities are supported by the NCI-designated UNC Lineberger Comprehensive Cancer Center.

Preceptors are: **Steven Bachenheimer, Albert Baldwin, Victoria Bautch, David Brenner, Keith Burridge, Sharon Campbell, Stephen Chaney, David Clemmons, Edward Collins, Marila Cordeiro-Stone, Channing Der, Robert Duronio, H. Shelton Earp, Beverly Errede, Jeffrey Frelinger, Frank French, Jack Griffith, Eng-Shang Huang, Clyde Hutchison III, Kenneth Jacobson, Rudolph Juliano, David Kaufman, William Kaufmann, Shannon Kenney, Ryszard Kole, Steven Leadon, David Lee, Patricia Maness, William Marzluff, Beverly Mitchell, Joseph Pagano, Tom Petes, Mark Peifer, Nancy Raab-Traub, James Raleigh, Dale Ramsdeo, R. Jude Samulski, Aziz Sancar, Ronald Swanstrom, Lishan Su, Holden Thorp, Jenny Ting, Ronald Thurman, Michael Topal, Terry Van Dyke, Jean-Michel Vos, Kevin Weeks, Bernard Weissman, Elizabeth Wilson, and Yue Xiong.**

Candidates must be U.S. citizens or permanent residents. For an informational brochure or to apply (include curriculum vitae, three letters of recommendation, a statement of research interests, and graduate school records) write to:

Joseph S. Pagano, M.D.
CB# 7295
UNC Lineberger Comprehensive Cancer Center
School of Medicine
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7295

UNC's Comprehensive Cancer Center is an Affirmative Action/Equal Opportunity Employer. Minority applicants are encouraged to identify themselves voluntarily.

Kenneth A. Klivington Fellowship in Theoretical Bioelectromagnetics

The Fetzer Institute announces the availability of a two-year postdoctoral research fellowship in theoretical bioelectromagnetics. The purpose of the fellowship is to strengthen the theoretical understanding of the interactions between weak electromagnetic fields and biological systems. Particular emphasis will be placed on the application of principles of nonlinear dynamics to the proposed research.

ELIGIBILITY:

- Candidates must hold a Ph.D. or equivalent degree in an appropriate discipline.
- Candidates must have made arrangements to work in the laboratory of a senior scientist who conducts experimental research (in order to foster collaboration between theoreticians and experimental scientists).

APPLICATION:
A complete application consists of

- Letter of intent from candidate stating their research interest and presenting an outline of their research plan (750 words or less).
- Curriculum vitae, including authored publications, from candidate.
- Letter sent directly from senior member of chosen laboratory describing resources available to the candidate.
- Two letters of support sent directly from senior scientists familiar with candidate's work.

Send all materials to: Fetzer Institute, Klivington Fellowship, 9292 West KL Ave, Kalamazoo, MI 49009-9398

Questions? E-mail info@fetzer.org

DEADLINE AND NOTIFICATION:
Applications must be received by the Fetzer Institute no later than May 15, 2000. Recipients will be notified by June 30, 2000.

TERMS:
The fellowship begins in the fall of 2000 and lasts for two years. The fellowship provides a salary commensurate with the candidate's experience and includes an allowance for research expenses and travel. The Fetzer Institute does not provide indirect costs to the host institution.

To learn more about this fellowship, go to www.fetzer.org.

St. Jude Children's Research Hospital

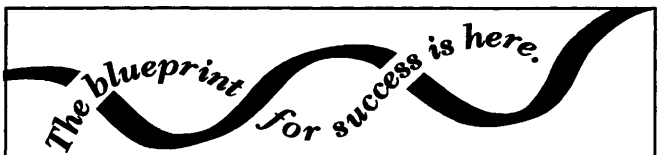
ALSAC • Danny Thomas, Founder

POSTDOCTORAL POSITIONS

Postdoctoral positions are available immediately in the Program for Viral Oncogenesis and Tumor Immunology to study several aspects of gammaherpesvirus biology and pathogenesis. Current areas of research include, but are not limited to: *i*) function of Epstein-Barr virus (EBV) latency-associated proteins (*J. Virol.* 70:4228, 1996); *ii*) the role of EBV in Burkitt lymphoma (*Mol. Cell. Biol.* 19:1651, 1999); *iii*) regulation of viral gene expression (*J. Virol.* 73:7943, 1999); and *iv*) development of the murine gammaherpesvirus model of viral latency (*Proc. Natl. Acad. Sci. USA* 96:7508, 1999). Applicants must have a Ph.D. and/or M.D. and a strong background in molecular biology and/or biochemistry. To apply, send *curriculum vitae*, a brief description of research accomplishments, and the names of three references to:

Clare or Jeffery Sample, Ph.D.
Department of Virology & Molecular Biology
St. Jude Children's Research Hospital
332 North Lauderdale Street
Memphis, TN 38105
clare.sample@stjude.org
jeff.sample@stjude.org

www.stjude.org
EOE M/F/D/V



Lexicon Genetics is a genomics-based biopharmaceutical company focused on harnessing the power of molecular genetics for the discovery of novel gene-based therapeutics. Our proprietary gene trapping technology provides rapid and efficient access to the transcribed portion of the genome and enables the elucidation of gene function by insertional mutagenesis at an unprecedented rate. In addition, our rapidly expanding homologous recombination program efficiently generates custom alleles (e.g. subtle mutations, knock-in's, conditional mutations) in the mouse germ line using our proprietary KO system.

In our Genomics Laboratories, we seek to fill the following positions:

FUNCTIONAL GENOMICS SCIENTISTS

Currently we have several opportunities for team-oriented scientists to work on defining gene function using homologous recombination and high throughput gene trapping technologies. Experience with molecular biology, homologous recombination, cDNA library manipulation and phenotypic analysis of rodent models is desirable.

Lexicon Genetics employees enjoy a pleasant working environment in The Woodland, TX located 30 miles north of Houston where a full range of cultural experiences awaits. We are interested in expanding our team with talented and motivated candidates. Lexicon provides an outstanding benefits package and rewarding career opportunities as well as an unique opportunity to contribute to the genomics field.

Please send your resume and cover letter, to: **Human Resources, LEXICON GENETICS INC., 4000 Research Forest Drive, The Woodlands, TX 77381-4287, Fax (281) 364-3207 Email: resume@lexgen.com For more information on our company please visit our website at: www.lexgen.com** E.O.E.

POSITIONS OPEN

MOLECULAR IMMUNOLOGISTS

The Receptor Cell Biology Section of NIAID, NIH, is recruiting for **POSTDOCTORAL FELLOWS** for studies on natural killer cell receptor expression and function and the roles that β1 integrins and the hemochromatosis protein HFE play in the immune response. Salary commensurate with credentials and research experience.

Qualified and interested candidates should send curriculum vitae and three letters of reference. For more information regarding these positions, contact:

John E. Coligan, Ph.D.
Laboratory of Allergic Diseases
Receptor Cell Biology Section
NIAID/NIH/Twinbrook II, Room 205
12441 Parklawn Drive
Rockville, MD 20852 U.S.A.
Telephone: 301-496-8247
FAX: 301-480-9094
E-mail: jcoligan@niaid.nih.gov

NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS

Molecular genetics of *Drosophila* visual system development and function. Postdoctoral positions are available on two NIH-funded projects to study the development and function of the visual system in *Drosophila*. Projects include an analysis of photoreceptor cell differentiation and patterning and studies on the basis of spectral tuning of the visual pigment rhodopsin and its role in color discrimination. These studies will utilize methods in genetics, molecular cell biology, and physiology. Please submit curriculum vitae, a statement of research interests, and names of at least three references to: **Dr. Steven G. Britt, Department of Cellular and Structural Biology, Department of Ophthalmology, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, B-111, Denver, CO 80262. Telephone: 303-315-0880; FAX: 303-315-4729; e-mail: steve.britt@uchsc.edu.** *The University of Colorado Health Sciences Center is committed to Equal Opportunity and Affirmative Action.*

POSTDOCTORAL FELLOW GENOMICS/PROTEOMICS

A position is immediately available to study mechanisms underlying regulation of gene expression by hypoxia and other environmental stimuli. Gain expertise in cutting-edge technologies, including subtractive cDNA library construction, cDNA microarrays, bioinformatics, and proteomics. It would be helpful to have experience in some of the following areas: cell biology, molecular biology, signal transduction, neuroscience, pharmacology, or protein chemistry. However, a qualified candidate with a strong record of research publications from any area of biomedical research will be considered. Please send your curriculum vitae and three letters of reference to:

Dr. David E. Millhorn
Professor and Chair
Department of Molecular and Cellular Physiology
University of Cincinnati
P.O. Box 670576
Cincinnati, OH 45267-0576

POSTDOCTORAL OPENING FOR A MOLECULAR BIOLOGIST

This opportunity (two to three years) involves projects on functional genomics and the development of high-throughput methodologies (DNA microarray) for genotyping in molecular epidemiologic studies. The candidate should be familiar with genetic polymorphisms involved in carcinogen metabolism, DNA repair, or in genes controlling cell growth, and should possess a working knowledge of conventional genotyping methods. Starting salary is GS-11 equivalent ($41,834). Interested applicants should submit résumés and three letters of recommendation to: **Dr. Fred F. Kadlubar, Director, Division of Molecular Epidemiology, National Center for Toxicological Research, Jefferson, AR 72079.** *National Center for Toxicological Research is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

OMRF **OKLAHOMA MEDICAL RESEARCH FOUNDATION**

TWO POSTDOCTORAL POSITIONS MOLECULAR/GENOMICS LAB INFLAMMATORY ARTHRITIS RESEARCH

Two Postdoctoral positions are available at the Oklahoma Medical Research Foundation, Arthritis/Immunology Department, Oklahoma City, Oklahoma. (1) Bioinformatics/Bioengineering Postdoctorate to aid in implementation of a coordinated program in molecular phenotyping of human and rodent inflammatory disease in a new million dollar, technically staffed microarray facility. Software development, hardware maintenance, project development, and wet laboratory requirements. (2) Protein Biochemist/Molecular Biologist to define the molecular mechanism of action of the gene causing familial Mediterranean fever, the first human gene identified causing frank inflammatory arthritis. Will work in a broad-based, technically staffed molecular/genomics laboratory on an inflammatory regulator crucial to human disease. Send curriculum vitae and three references to: **Dr. Michael Centola; e-mail: MichaelCentola@omrf.ouhsc.edu.** Visit OMRF **website: www.omrf.ouhsc.edu.** *Equal Opportunity/Affirmative Action Employer.*

STAFF SCIENTIST/PROTEIN CHEMIST

The Biomedical Services Division (BSD) of Novavax, Inc., is seeking outstanding candidates with demonstrated abilities in the field of protein chemistry and purification. Successful candidates should hold a Doctoral degree in biochemistry, molecular biology, or biophysics and have completed at least two years of postdoctoral training in a biological discipline. The candidate is expected to develop protein purification strategies, formulate vaccine antigens, and perform analytical tests. Management of projects will depend on supervisory experience. Working experience with cGMP guidelines is an additional consideration. Proficiencies with Waters HPLC and Millennium computer software, mass spectroscopy, circular dichroism, glycosylation analysis, and isoelectric focusing are requisite technical skills. Writing experience with SOPs, validation reports, patents, INDs, and manuscripts is needed. The Molecular Virology Laboratory develops and manufacturers recombinant protein vaccines for preclinical and clinical studies.

Novavax, Inc., is an ESOP company that offers a well-rounded benefit package with competitive compensation and stock options. For confidential consideration, please send a letter of introduction and curriculum vitae to the following:

Dr. Robin A. Robinson
Novavax, Inc.
Biomedical Services Division
1 Taft Court
Rockville, MD 20850
Telephone: 301-738-1106
FAX: 301-738-1109
E-mail: robinsor@novavax.com

An Equal Opportunity Employer.

Two **POSTDOCTORAL POSITIONS** at Mycobacterial Research Laboratories, Colorado State University: (1) Protein Chemist: to purify mycobacterial cell wall synthesis enzymes for drug discovery. Experience with membrane-bound enzymes, protein/protein interactions, standard molecular biology techniques, enzymology desired. (2) Carbohydrate Structural Chemist: to structurally characterize mycobacterial polysaccharides. Standard carbohydrate structural techniques, NMR, MS, purification desired. Contact: **Mike McNeil; e-mail: mmcneil@cvmbs.colostate.edu. Telephone: 970-491-1784** (Position 1). **Delphi Chatterjee; e-mail: Delphi@lamar.colostate.edu. Telephone: 970-491-7495** (Position 2). Contact either at: **Department of Microbiology, Colorado State University, Fort Collins, CO 80523.** *Colorado State University is an Equal Employment Opportunity/Affirmative Action Employer. Equal Opportunity office: 101 Student Services, CSU, Fort Collins, CO 80523.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS CYTOKINE SIGNAL TRANSDUCTION

Two Postdoctoral positions are available immediately to study cytokine signaling pathways. We have developed a new genetic approach allowing the isolation of interleukin-1 unresponsive mutant cell lines that lack specific components of the IL-1 signaling pathway (*Mol. Cell. Biol.* **19**:4643–4652, 1999). Current projects include: structure-function analysis of IL-1 receptor-associated kinase (IRAK) in IRAK-null cells, complementation of mutant cell lines for identification of new components of the IL-1 signaling pathway, and functional cloning of genes that regulate cytokine-mediated NFkB activation. Preference will be given to individuals with training in molecular biology and biochemistry. Please send curriculum vitae and three references to: **Dr. Xiaoxia Li, Department of Immunology, The Lerner Research Institute, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195. E-mail: Lix@ccf.org.**

INSTRUCTOR IN NUTRITIONAL SCIENCES UNIVERSITY OF ARIZONA

Nontenure-track, 100% teaching appointment. Successful candidates will teach three courses per semester of an academic-year appointment. Salary supplementation through course delivery in summer sessions is available. The successful candidate will develop syllabi; select appropriate instructional materials for all courses; and be fully responsible for content, instruction, and the learning process. Salary range $40,000 to $42,000, commensurate with experience and qualifications. Application review begins 3 April 2000 and continues until position filled. Send complete résumé, including three references and statement of career objectives to: **Dr. Fred Wolfe, Head, Department of Nutritional Sciences, University of Arizona, Tucson AZ 85721.** *University of Arizona is an Equal Employment Opportunity/Affirmative Action Employer; Minorities/Women/Disabled/Veterans.*

POSTDOCTORAL FELLOWSHIP

Postdoctoral Fellowship position (two years or more) is available June 2000 to study the molecular basis of progressive renal disease. The current focus of our NIH-funded program is the role of protease inhibitors in renal fibrogenesis. Work includes *in vitro* and *in vivo* studies.

A Ph.D. with extensive experience in molecular biology, including recombinant protein technology, is preferred. Please send curriculum vitae and the names of three references to:

Dr. Allison Eddy
Children's Hospital and Regional Medical Center
4800 Sand Point Way N.E., CH-46
Seattle, WA 98105
E-mail: aeddy@u.washington.edu

Equal Opportunity Employer. Candidates from underrepresented minorities are encouraged to apply.

POSTDOCTORAL POSITION available to study RNA structure-function relationships and ligand-RNA binding. Candidates must have a Ph.D. in biochemistry, molecular biology, or allied field. Experience with RNA molecular biology techniques essential. Please send curriculum vitae and names of three references to: **Professor J. V. Hines, Department of Chemistry and Biochemistry, Ohio University, Athens, OH 45701-2979.** *Ohio University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately for NIH-supported study of mucosal and passive immunity related to enhancement of the immunogenicity of recombinant enteric viral vaccines in a gnotobiotic pig challenge model. Experience in cellular immunology is required, with training in molecular virology desirable. Send curriculum vitae and three letters of recommendation to: **Dr. Linda Saif, Food Animal Health Research Program, OARDC, The Ohio State University, Wooster, OH 44691.**

POSTDOCTORAL FELLOWSHIPS IN MOLECULAR AND CELL BIOLOGY AT THE NIH

Postdoctoral Fellowships are available in the Genetics and Biochemistry Branch, NIDDK, NIH. The Branch is similar to a small academic department and has excellent laboratory facilities. The intramural program of the NIH offers an outstanding research environment. The Branch is located on the main intramural campus of the NIH in Bethesda, Maryland, a 20 minute ride from Washington, D.C.. Applications are invited from individuals of the highest caliber with Ph.D., M.D., or M.D., Ph.D. degrees. Physicians may participate in either the NIH Interinstitute Endocrine or the NIH Interinstitute Medical Genetics Training Programs. Current research interests of the staff with positions available include:

- The laboratory uses a combination of biochemical and genetic approaches to study 1) the membrane insertion, assembly and trafficking of integral membrane proteins in eukaryotic cells and bacteria and 2) the secretion of eukaryotic proteins that lack conventional signal sequences (e.g., IL-1, galectin). **(Harris Bernstein)**

- The laboratory studies the biochemistry and molecular biology of homologous recombination in eukaryotes and prokaryotes. Current interests include meiosis in mouse and man, the control of the expression pattern of DNA damage inducible genes, helicases in mammalian recombination, the structure of recombination proteins and novel approaches to gene therapy (including the use of small molecules that promote gene targeting and silencing, such as miniRecAs). **(Dan Camerini-Otero)**

- The focus is on molecular mechanisms of homologous recombination and DNA mismatch repair including structure-function studies of MutS- and MutL-related proteins, the regulation of recombination by mismatch repair, identification of novel eukaryotic repair and recombination proteins and the modulation of chromatin structure during recombination. **(Peggy Hsieh)**

- The laboratory studies the molecular mechanisms of orphan nuclear transcription factors. Molecular investigations include: transgenic and gene targeted mouse models, yeast 2-hybrid screening and gene expression profiling. Applicants should have a strong background in molecular and cell biology and must have less than five years of postdoctoral experience. **(Vera Nikodem)**

- The lab examines mechanisms of RNA processing using genetic and biochemical methods. Cis-acting elements and trans-acting factors required for pre-rRNA processing are being studied in various eucaryotic systems. We have recently identified cis-sequences essential for rRNA processing in yeast and are characterizing proteins comprising the U8 snoRNP in vertebrates. Examination of RNA:RNA and RNA:protein interactions during pre-rRNA processing will provide insight into this basic cellular process. **(Brenda Peculis)**

Interested candidates should send a letter stating their interests, their curriculum vitae and list of publications, and arrange to have letters from three references sent to one of the investigators above or to Dr. R. Daniel Camerini-Otero, Chief, Genetics and Biochemistry Branch at:

Genetics and Biochemistry Branch
Building 10, Room 9D-20
National Institutes of Health
Bethesda, Maryland 20892

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

Molecular Biologist/Protein Chemist

Institutionally funded post-doctoral positions are available immediately in the new structural biology laboratory of Dr. Tina Izard to study several proteins involved in mammalian eye development by X-ray crystallography. The research will involve the cloning, expression, purification, crystallization, and structure determination. The project is in collaboration with Dr. Guillermo Oliver (Department of Genetics).

Applicants should hold a PhD in biochemistry, protein chemistry, molecular biology, or a related field with interest in three-dimensional protein structure and function. Practical experience in protein biochemistry, recombinant protein expression, and molecular biology would be welcome. Familiarity with X-ray diffraction is not required; extensive training will be provided to the successful candidates. The positions will be funded for an initial period of three years with the possibility of an extension.

The Department of Structural Biology has outstanding facilities for molecular biology; protein expression, purification and biochemical characterization; and protein crystallography. Computer and hardware support is provided by a PhD-level X-ray specialist.

SJCRH is located in Memphis, a city rich in history and culture offering dazzling night life along legendary Beale Street, cultured theaters and museums, breathtaking nature preserves, or walks through historic, picturesque Midtown. Housing and other living expenses are very reasonable. Appointees will receive highly competitive salaries, employee benefits, health care benefits, paid vacation, and relocation expenses.

Please send CV, summary of research experience and interests, and names, addresses, email and telephone numbers of 3 references to: Dr. Tina Izard, Department of Structural Biology, St. Jude Children's Research Hospital, 332 North Lauderdale Street, Memphis, TN 38105. Telephone: (901) 495-3996. An Affirmative Action/Equal Opportunity Employer

GLOBAL OPPORTUNITIES

INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE
ILRI

POSITION ANNOUNCEMENT

Post-Doctoral Scientist – Immunology and Vaccine Development
Ref.: - PDIV/01/2000

The International Livestock Research Institute invites applications for a 3 year Post-doctoral appointment to continue the development and evaluation of live bacterial antigen delivery systems for induction of class I MHC immune responses; contribute to research on the development of in vitro systems for the induction and detection of antigen-specific CTL and to the development of assays for screening parasite antigens and peptides for CTL epitopes.

Candidates should have a PhD in immunology and a good publication record. Experience in ruminant immunology, the induction of class I MHC-restricted immune responses or antigen delivery systems is advantageous. He / She should have sound analytical judgement and be able to generate innovative approaches to scientific questions. Good communication and interpersonal skills, an ability to perform in a multi-disciplinary and multi-cultural research environment and fluency in spoken and written English are essential requirements. The position is located at ILRI-Nairobi, Kenya.

Applications with cover letter, curriculum vitae, names and addresses of three referees should be sent to the Human Resources Manager, ILRI, P.O. Box 30709, Nairobi, Kenya; Telephone: 254-2-630743; Fax: 254-2-631499; e-mail: **ILRI-KENYA@cgiar.org**. Please quote reference number. Screening of applications will begin on 10th March 2000 and will continue until the post is filled.

To find more about ILRI, visit our Website at http://www.cgiar.org/ilri.

ILRI is an equal opportunity employer. Qualified women and professionals from developing countries are particularly encouraged to apply.

POSTDOCTORAL POSITIONS HOLLINGS CANCER CENTER

Postdoctoral positions available immediately to investigate novel genes identified by this laboratory and study their role in thoracic and other malignancies. Experience in cellular and molecular biology is required. Recent Ph.D. with experience in mammalian cell culture and transfection, Western blotting, immunohistochemistry, and using animal models for cancer progression preferred. The candidate will work with a team of Ph.D.s and M.D.s, with the goal of quickly translating this work into clinical applications. A recent Ph.D., with Western publications documenting experience in cellular and molecular biology, is required. Please send curriculum vitae, a description of research experience and interests, and three letters of reference to: **Dr. Dennis K. Watson, Center for Molecular and Structural Biology, Medical University of South Carolina, 86 Jonathan Lucas Street, Charleston, SC 29425. E-mail: watsondk@musc.edu.**

POSTDOCTORAL FELLOWSHIP MOLECULAR BIOLOGY OF RNA

Ibis Therapeutics, a division of Isis Pharmaceuticals, has a strong program committed to the discovery of antimicrobial drugs that bind to RNA targets. We are currently seeking a Postdoctoral Fellow to participate in a project to identify small functional RNAs involved in bacterial pathogenesis. This project involves identifying these RNAs from genomic sequences, creating genomic knockouts in pathogenic bacterial strains, and evaluating the role of these RNAs in normal growth, as well as in virulence. The successful candidate will be an entry-level individual with a Ph.D. in an appropriate area and will have experience in generating genomic mutations in laboratory- and wild-type bacterial strains.

Send résumé to: **Ibis Therapeutics, IIR–Code 355, 2292 Faraday Avenue, Carlsbad, CA 92008. FAX: 760-603-2700; website: www.ibisrna.com.**

POSTDOCTORAL FELLOWSHIP: molecular biology of Alzheimers' disease. Solid experience in molecular biology required. Work will involve utilizing laser capture microdissection; RNA amplification; array technology; and a variety of additional methods to analyze, validate, and expand on data from large-scale arrays. The goal of the work will be to contribute to our understanding of the molecular cascade(s) leading to the neurobiological devastation of Alzheimer's disease. Opportunity for advancement exists. *Funds available limited to U.S. citizens or permanent residents only.* Send résumé, statement of research interests, and names of at least three references to: **Paul D. Coleman, Ph.D., University of Rochester Medical Center, 601 Elmwood Avenue, Box 645, Rochester, NY 14642. E-mail: Paul_Coleman@urmc.rochester.edu.**

NEUROSCIENCE RESEARCH FELLOW

POSTDOCTORAL POSITION available for studies of adenosine action on nervous system development at Yale University. Experience in neuroscience and basic neuroanatomy methods is required. Good verbal and written skills are also required. Please send curriculum vitae and names of references to: **Scott Rivkees, M.D., Department of Pediatrics, Yale University, P.O. 208081, New Haven, CT 06520. E-mail: Scott.Rivkees@Yale.edu.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION: Retinal Electrophysiologist. A NEI-funded position is available immediately to study the visual and biophysical response properties of retinal ganglion cells in normal and glaucomatous eyes. Applicants should have strong *in vitro* intracellular recording skills. *U.S. citizens/permanent residents only.* Send curriculum vitae, statement of research interests, and three references to: **Arthur J. Weber, Ph.D., Department of Physiology, Michigan State University, East Lansing, MI 48824. E-mail: weberar@msu.edu.** *MSU is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS EUNICE KENNEDY SHRIVER CENTER

Funded Postdoctoral positions available immediately to study genetic variation in human cell surface glycoconjugates, pathogen binding to host cell glycoconjugates, and human milk glycoconjugates that inhibit pathogen binding to the host cell surface. Candidates should have a professional degree with experience in analytical biochemistry and familiarity with glycobiology. A working knowledge of HPLC, CE, and other analytical methodology is desirable.

The Shriver Center, located in a wooded campus close to Boston, an affiliate of Massachusetts General Hospital and Harvard Medical School, provides many opportunities for scientific interactions.

Please send curriculum vitae and the names/telephone numbers of three references to: **Dr. David S. Newburg, Program in Glycobiology, Biomedical Sciences, E. K. Shriver Center, 200 Trapelo Road, Waltham, MA 02452. FAX: 781-894-9968; e-mail: DNewburg@shriver.org; website: www.shriver.org.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS CELL AND MOLECULAR BIOLOGY

Positions are available to study the mechanism of action of thymidylate synthase and deoxycytidylate deaminase, both targets for cancer chemotherapy. Gene isolation and amplification of their protein products in eukaryotic and prokaryotic systems will be required. In addition, site-specific mutagenesis will be employed to establish the relation of structure to function of these enzymes, as well as factors affecting their intracellular location, such as protein phosphorylation and signal transduction. The interaction of these enzymes in regulating DNA synthesis will also be investigated. Cloning, sequencing, and tissue culture experience are desirable. The research will be conducted in a well-equipped core facility. Compensation from Health Research Inc., dependent upon experience. Send résumé and three references to: **Dr. Frank Maley, Wadsworth Center for Laboratories and Research, Empire State Plaza, Box 509, Albany, NY 12201.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION

NIH-sponsored Postdoctoral position in cell growth regulation and gene therapy in the **Khavari** laboratory (**website: http://cmgm.stanford.edu/khavari**). Curriculum vitae and names of three references to: **Paul A. Khavari, M.D., Ph.D., c/o Nancy Griffiths, Stanford University School of Medicine, MSLS Building P206, Stanford, CA 94305. FAX: 650-723-8762.** *Stanford University is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

POSTDOCTORAL POSITION is available for a physicist who has electrical engineering or medical physics background, high-level programming skills, and some nuclear medicine experience. Research includes PET imaging instrumentation (hardware/software) and experimental applications with physiological modeling and data analyses. Applicants should send a curriculum vitae and three letters of reference to: **Dr. Anna-Liisa Brownell, Department of Radiology, Massachusetts General Hospital, Bartlett Hall 500R, Boston, MA 02114. E-mail: abrownell@partners.org.**

POSTDOCTORAL POSITIONS for NIH-funded studies of transcriptional regulation of blood coagulation and vitamin K-dependent proteins in development using biochemical and transgenic approaches. Ph.D.s or M.D.s with a strong background in molecular biology required. Send curriculum vitae and names of three references to: **Dr. David A. Roth, Harvard Medical School, Center for Hemostasis and Thrombosis Research at Beth Israel Deaconess Medical Center, 41 Avenue Louis Pasteur, RE–302, Boston, MA 02115. FAX: 617-667-2355; e-mail: droth@caregroup.harvard.edu.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP GLOBAL ENVIRONMENT

Brown University invites applicants for a two-year Postdoctoral Fellowship in the Global Environment Program at the Watson Institute for International Studies, starting September 1, 2000. Responsibilities include developing a research project on a global environmental issue, teaching one course a year (environmental science laboratory and/or seminar), and collaborating with ongoing research efforts within the Institute. Requirements include recent Ph.D. in an environmental science, demonstrated international interests, and interest in interdisciplinary research. Applicants should submit a letter of interest, curriculum vitae, statement of research interests, and have three letters of reference sent to: **Postdoctoral Search Committee, Global Environment Search, Watson Institute for International Studies, Brown University, 130 Hope Street, Box 1831, Providence, RI 02912.** All applications received by March 15, 2000, will receive full consideration. E-mailed applications will not be considered. *Brown University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION SENSORY SYSTEM SIGNAL TRANSDUCTION

Posdoctoral position to study molecular mechanisms of proliferation and differentiation in the inner ear. Biochemical and molecular biologic approaches are used to study signaling involved in hair cell regeneration and regulation of potassium channel gene expression. Strong background in biochemistry and/or molecular biology required. Send curriculum vitae, statement of research experience, and names of three references to:

Dr. J. Carl Oberholtzer
Department of Pathology and Laboratory Medicine
613B Stellar-Chance Laboratories
University of Pennsylvania School of Medicine
422 Curie Boulevard
Philadelphia, PA 19104
FAX: 215-573-7738
E-mail: oberholt@mail.med.upenn.edu

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

POSTDOCTORAL POSITION in virology is available immediately to develop animal models to study the *in vivo* replication, immune response, and potential for pathogenicity of porcine endogenous retroviruses. Experience with animal handling, molecular biology, and/or retroviruses useful. Ph.D. and/or M.D. required. Laboratory is located on the NIH campus. Contact: **Carolyn A. Wilson, Ph.D., Division of Cell and Gene Therapies, OTRR, CBER, FDA, 1401 Rockville Pike, HFM–530, Rockville, MD 20852. E-mail: wilsonc@CBER.FDA.GOV.** Respond by March 15, 2000.

A **POSTDOCTORAL POSITION** in organic synthesis is available. Candidates with a Ph.D. degree, either in synthetic organic or medicinal chemistry, are solicited to join a research team in synthesis of ligands for CNS dopamine and serotonin receptors. Major emphasis will be in organic synthesis of novel compounds for drug development. Send résumé to: **Dr. Hank F. Kung, Room 305, 37000 Market Street, Departments of Pharmacology and Radiology, University of Pennsylvania, Philadelphia, PA 19104. E-mail: kunghf@sunmac.spect.upenn.edu; website: http://sunmac.spect.upenn.edu/.**

A **POSTDOCTORAL POSITION** is available immediately to investigate the molecular and cellular aspects of the host response in diabetes. Candidates should have a background in molecular biology and diabetes *and currently reside in the United States or Canada.* The salary will be commensurate with experience, and the appointment is for two years. Send curriculum vitae to: **Dr. Dana Graves, W–202, Boston University, 700 Albany Street, Boston, MA 02118. Telephone: 617-638-4733; e-mail: danatgraves@usa.net.**

European Opportunities

axxima

We are a young, fast-growing Pharmaceuticals company in the southwest of Munich. The company investigates infectious diseases and develops new medicines for the treatment of these diseases. To strengthen our research team, we are currently seeking a range of candidates with the following profiles:

Group Leader Discovery and Validation
Profile:
- Leadership experience, team-oriented
- Profound knowledge in eukaryotic signal transduction

Scientist Drug Discovery / Cellular Systems
Profile:
- Post-doctorate
- Comprehensive cell culture knowledge: cultivation, transfection and infection of eukaryotic cell systems
- Experience in the application of immuno-staining techniques
- Interest in the technology and IT as a basis for the control and operation of pipetting and analytic systems
- Background in data collection, analysis and storage

Scientists Discovery and Validation
Profile:
- Experience with human or animal pathogens (Viruses, Bacteria, or Protozoa)
- And/or solid eukaryotic signal transduction know-how
- Excellent knowledge in the essential molecular biology and biochemical standard techniques as well as the cultivation of eukaryotic cell systems

Scientist Genomics Sciences
Profile:
- Good command of the molecular biology basics with the main focus on cloning strategy (rtPCR, PCR, 5' Race, cDNA library screening, etc.)
- Team player, innovative, communicative, interested in IT (experience with MS Office package and Online-databanks)
- Interest in the latest developments in the field of molecular biology

Scientist Protein Biochemistry
Profile:
- Senior post-doctorate
- Solid background in protein expression and purification from bacteria and insect cell systems
- Experience in the handling of HPLC and FPLC
- Basic knowledge in the signal transduction of eukaryotic cells and in the proteon analysis

We offer excellent opportunities for successful candidates to become part of a highly motivated team in a young, dynamic company.

Interested? Please send in your application, including your earliest possible start date, to the following address:

Axxima Pharmaceuticals AG
Personnel, Am Klopferspitz 19, 82152 Martinsried, Germany Tel.: +49 89 740 165 0
E-mail: mail@axxima.com

DOES THIS SOUND LIKE YOU OR SOMEONE YOU KNOW?

"I have long been interested in science, and in helping people. During my training, I had a number of clinical experiences which convinced me that I wanted to specialize in immunology at the bench, but still have patient contact."

"I was always tinkering with my toys, taking them apart, trying to fit the square peg in the round hole. NIH is the only place to be for cutting-edge training, creativity, and pure excitement."

Has your interest always been to pursue medical research? Do the realities of staggering educational debt appear to prevent you from realizing your dreams? NIH offers a variety of clinical and basic science postdoctoral training fellowships that can be combined with educational loan repayment incentives. You owe it to yourself to know about these programs (or share the information with someone in need!) as you make your career decisions. You owe it to yourself to learn more about what NIH can do for you.

NIH Loan Repayment Benefits of $35,000 per Year

NIH, the world's leading biomedical research facility, has trained thousands of qualified students in neuroscience, pathology, immunology, molecular genetics, developmental biology, cell biology, molecular biology, virology, and structural biology, to name only a few areas in our intramural research program.

For more information on the Loan Repayment Program and postdoctoral training, visit our websites at:

http://www.training.nih.gov and
http://lrp.info.nih.gov

Toll Free: 1-800-528-7689 TTY: 1-888-352-3001

NIH is dedicated to building a diverse community in its training and employment programs.

SEARLE

it's

the people, the complex challenges, the stimulating environment. The opportunity to work independently while contributing to a team. The opportunity to make a difference - to leave your mark. It's about food, health, hope and an exciting future as we merge with Pharmacia and Upjohn.

Cellular Immunologists

We are seeking two cellular immunologists (one MS/BS and one Ph.D. both with 3+ years of relevant experience) to join our research efforts in oncology to support studies of murine and human immune responses. We expect demonstrated proficiency in cellular immune response assays designed to measure in vivo induction of T cell-mediated immune responses, including ELISA, flow cytometry (including ICC), ELISPOT, cell culture of lymphocytes, antigen processing and presentation assays, lytic assays, and generation of T cell lines and hybridomas. Familiarity with dendritic cells, immune-dependent mouse tumor models and animal vaccination and handling would be a plus. You would be a member of a multidisciplinary team responsible for immunological assays that impact projects in our Immunotherapy program and others.

Searle, the pharmaceutical unit of Monsanto, is a profitable and promising pharmaceutical company with a full pipeline of new products. Searle's commitment to excellence is translated in the company's innovative matrix management style. Fostering creativity, independent thinking and decision-making at the appropriate level, Searle is organized cross-functionally with teams interacting across three therapeutic areas: oncology, arthritis and inflammation, and cardiovascular disease. We value highly motivated, decisive self-starting team players who are also results-oriented, flexible and creative. You should be comfortable in and able to excel in a multi-project fast-paced environment.

If you meet these basic qualifications, and think that you would thrive in our special environment, please submit your resume including three letters of recommendation to: Staffing 00-0267, Mail Zone BB5B, 700 Chesterfield Village Parkway, St. Louis, MO 63198. We offer a competitive salary and benefits package, including tuition reimbursement and 401(k). EEO/AA Employer M/F/D/V. Please visit us on the web at www.searle-ican.com

i can Make A Difference.

POSITIONS OPEN

POSTDOCTORAL POSITION

A Postdoctoral Fellowship position is available to study the molecular mechanisms by which environmental pollutants induce lung injury. The qualified candidate will examine the effect which environmental pollutants have on pulmonary cellular signal transduction pathways and corresponding gene expression. The objective of this research is to determine the molecular mechanisms responsible for acute and chronic lung injury associated with air pollution exposure. This position is a cooperative research effort between the U.S. Environmental Protection Agency and North Carolina State University. The position requires a Ph.D. in cell and/or molecular biology, toxicology, or physiology. Experience in cell and molecular biology techniques associated with signal transduction and gene expression analysis is highly desirable. *Candidates must be U.S. citizens or of permanent residency immigration status.* Interested individuals should send a curriculum vitae and three letters of recommendation to: **Dr. Kenneth Adler, North Carolina State University CVM, 4700 Hillsborough Street, Raleigh, NC 27606.**

POSTDOCTORAL POSITION available immediately to study cell-mediated immune responses of human volunteers immunized with genetically engineered vaccine strains of *Salmonella typhi* and Shigella. Studies include antigen presentation, MHC-restriction, cloning and characterization of cytotoxic and helper T cells, identification of protective epitopes, and manipulation of cytokine production patterns to elucidate their role in the outcome of immune responses to vaccination. The candidate should have a Ph.D. in microbiology immunology or M.D. degree and experience in the study of immunological mechanisms. Experience in flow cytometry and/or cellular and molecular biology techniques is desirable. Send curriculum vitae and the names of three references to: **Marcelo B. Sztein, M.D., Chief, Cellular Immunology and Flow Cytometry Section, Center for Vaccine Development, 685 West Baltimore Street, Room 480, University of Maryland, Baltimore, MD 21201. E-mail: msztein@medicine.umaryland.edu.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION in signaling and apoptosis available immediately to study the serine/threonine kinase Pim-1 in signaling through TNF-related receptors. *Applicants must be U.S. citizens* with a Ph.D., M.D., or D.V.M. degree. Support and benefits commensurate with experience. Send curriculum vitae, including three references, to: **Dr. Nancy Magnuson (e-mail: magnuson@mail.wsu.edu)** or **Dr. Phil Mixter (e-mail: pmixter@wsu.edu), School of Molecular Biosciences, Washington State University, Pullman, WA 99164-4234.** *Washington State University is an Equal Opportunity/Affirmative Action Educator and Employer. Protected group members are encouraged to apply.*

PARASITOLOGY POSTDOCTORALS

In (1) regulation of GPI-phospholipase C in Trypanosoma brucei, or (2) control of gene expression in leishmania (**website: http://www.uga.edu/cellbio/**). Molecular cloning skills required. Experience with parasite biology not needed. Skill in confocal microscopy an asset. Send curriculum vitae and arrange for three letters of recommendation to be mailed to: **Kojo Mensa-Wilmot, Department of Cellular Biology, University of Georgia, Athens, GA 30602. FAX: 706-542-4271; e-mail: mensawil@cb.uga.edu.**

TWO POSTDOCTORAL POSITIONS

Available immediately in an interactive laboratory studying atherosclerosis: vascular biology, molecular biology, estrogen protection, immunology, mouse models. Contact: **Dr. Linda K. Curtiss** or **Dr. Carole L. Banka, Immunology and Vascular Biology, The Scripps Research Institute, IMM-17, 10550 North Torrey Pines Road, La Jolla, CA 92037. E-mail: lcurtiss@scripps.edu; cbanka@scripps.edu.** *Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION
DEPARTMENT OF RADIATION ONCOLOGY
UNIVERSITY OF MICHIGAN

Postdoctoral positions are currently available in the Division of Radiation and Cancer Biology, Department of Radiation Oncology, University of Michigan Comprehensive Cancer Center, to study cellular and molecular aspects of human breast carcinogenesis and to develop novel translational strategies for breast cancer therapy. The Division includes five laboratories with additional areas of investigation relating to drug-radiation interactions, enzyme/prodrug gene therapy, radiation-induced signal transduction, and triggering of p53 induction and apoptosis. Successful candidates will have a Ph.D. and a strong background in cell and/or molecular biology and a strong interest in cancer biology. Interested applicants should send their curriculum vitae and names of three references to: **Stephen P. Ethier, Ph.D., Radiation and Cancer Biology Division Director, Department of Radiation Oncology, University of Michigan Health Systems, 1500 East Medical Center Drive, 7312 CCGC, Ann Arbor, MI 48109-0948.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS
POLYCYSTIC KIDNEY DISEASE

The NIH has recently funded a polycystic kidney disease center at the University of Kansas to investigate the mechanisms of polycystin function in organisms from worms to humans, utilizing biochemical, molecular, cellular, genetic, and transgenic techniques. Postdoctoral positions are available at the University's main campus in Lawrence and at the medical center in Kansas City. Send cover letter and curriculum vitae to:

Dr. James P. Calvet, Fellowship Director
Department of Biochemistry and Molecular Biology
4016 Wahl Hall East
University of Kansas Medical Center
3901 Rainbow Boulevard
Kansas City, KS 66160-7421
E-mail: jcalvet@kumc.edu

POSTDOCTORAL POSITIONS available in a newly established, energetic laboratory investigating the phosphorylation-dependent regulation of guanylate cyclase-linked natriuretic peptide receptors. Studies will involve molecular, biochemical, and cell biological techniques. Ph.D. or M.D. required. Experience with protein purification, yeast two-hybrid screens, or gene disruptions is desirable. Submit curriculum vitae and names and e-mail addresses of three references to: **Dr. Lincoln R. Potter, Department of Biochemistry, Molecular Biology and Biophysics, University of Minnesota, Minneapolis, MN. FAX: 612-624-7282; e-mail: potter@tc.umn.edu.** *The University of Minnesota is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION is available immediately to study ion-protein interactions. Techniques to be used include protein expression and purification, stopped-flow rapid reaction kinetics, and column chromatography. This extends our earlier work [**Collins,** *Biophysical J.* **72:65-76, 1997**]. Please send a hard copy letter stating interest and qualifications, curriculum vitae, and the names and addresses (e-mail, postal, and telephone number) of three references to: **Dr. Kim D. Collins, Department of Biochemistry and Molecular Biology, University of Maryland Medical School, 108 North Greene Street, Baltimore, MD 21201-1503.**

POSTDOCTORAL FELLOWS

Postdoctoral positions are available immediately to study regulation of genes involved in resistance to anticancer drugs and apoptosis, as well as novel mechanisms of resistance. Ph.D. and background in molecular biology and biochemistry are required. Send a curriculum vitae to: **Ahmad R. Safa, Ph.D., Indiana University Cancer Center, 1044 Walnut, R4-119, Indianapolis, IN 46202. FAX: 317-274-8046.**

POSITIONS OPEN

PRE- AND POSTDOCTORAL FELLOWSHIPS
SLEEP RESEARCH
Northwestern University and University of Chicago

Pre- and Postdoctoral positions available for interdisciplinary training in a wide range of scientific disciplines that are central to the future of sleep research. Positions are available through a multiinstitutional NIH training grant awarded to Northwestern University and the University of Chicago. Trainees will be able to integrate cutting-edge approaches and techniques in the areas of genetics, endocrinology, pharmacology, neurobiology, cognitive neuroscience, gerontology, and chronobiology into their training in sleep research. Send curriculum vitae and names of three references to: **Dr. Fred W. Turek, Director, Center for Circadian Biology and Medicine, Northwestern University, 2153 North Campus Drive, Evanston, IL 60208-3520 U.S.A. E-mail: fturek@nwu.edu.** Applicants must be eligible for NIH training support (*U.S. citizen or permanent resident*). *An Equal Opportunity Employer.*

The United States Department of Agriculture (USDA), Agricultural Research Service (ARS), Insect Biocontrol Laboratory, is seeking a **POSTDOCTORAL RESEARCH ASSOCIATE** (Research Molecular Biologist) to study the ability of a unique insect polydnavirus to integrate DNA into insect cells *in vitro*, including molecular characterization of the virus, expression analysis of genes codes within integrating virus segments, and evaluation of polydnavirus as a vector for transformation of insect cells. Ph.D. required and experience in molecular biology/virology. Salary: $42,724 to $66,564, commensurate with experience. *There are some citizenship restrictions.* Refer to **website: www.ars.usda.gov** for full text announcement (#RA-99-51L) and complete application instructions. Send curriculum vitae and references to: **Dawn Gundersen-Rindal, Ph.D., USDA, Insect Biocontrol Laboratory, Building 011A, Room 214, Beltsville, MD 20705. E-mail: dgunders@asrr.arsusda.gov.** *USDA is an Equal Opportunity Provider and Employer.*

POSTDOCTORAL POSITION

Postdoctoral position to study molecular mechanisms of leukocyte chemotaxis (*JBC* **274**:37087, 1999) and cross-regulation of chemoattractant/chemokine receptors) (JBC **274**:6027, 1999). Applicants must have experience in cell and molecular biology. Send curriculum vitae and details of three references to: **Ralph Snyderman, M.D. Haribabu Bodduluri, Ph.D., Department of Medicine, Box 3680, Duke University Medical Center, Durham, NC 27710; FAX: 919-684-4390; e-mail: boddu001@mc.duke.edu.** *Duke University is an Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF WASHINGTON

POSTDOCTORAL POSITION available in molecular oncology to study function and regulation of novel tumor suppressor genes TSC1 and TSC2. Candidates should have strong background in molecular, cell biology, and/or biochemistry. A Ph.D. in life sciences is required but with no more than three years of postdoctoral experience. Send curriculum vitae and names of references to: **Dr. Raymond Yeung, Department of Surgery, University of Washington School of Medicine, Box 356410, Seattle, WA 98195.** *An Equal Opportunity Employer.*

POSTDOCTORAL CANDIDATE: expertise in cell biology and biochemistry to investigate actin-based cell motility. Projects include: actin kinetics, PCR mutagenesis, image analysis with GFP proteins, and microinjection. Be part of an exciting research team located in a warm, sunny university-oriented city. Please contact: **Frederick Southwick, M.D., Professor of Medicine and Biochemistry/Molecular Biology, Box 100277, University of Florida, Gainesville, FL 32610. E-mail: southfs@medmac.ufl.edu.**

European Opportunities

University of Newcastle upon Tyne

School of Biochemistry & Genetics

THREE POSTDOCTORAL RESEARCH POSITIONS

£16,286 - £24,479 pa

ONE RESEARCH STUDENTSHIP

High calibre Biological Chemists, Molecular Biologists & Biochemists are sought to conduct basic research relevant to all organisms. The vacancies are to study transport & intracellular trafficking of essential metals, or metal-responsive transcriptional control. All posts are for 3 years. The postdoctoral positions are available from 1 April 2000 at the earliest and the studentship from October 2000. Recent publications from this research group include: J.Biol.Chem. 274 25827 (1999); Nature 397 694 (1999); PNAS 95 1072 (1998); J.Biol.Chem. 273: 22957 (1998); J.Biol.Chem. 273: 212 46 (1998).

You should send a CV with the names and addresses of two referees to Professor N J Robinson, School of Biochemistry & Genetics, The Medical School, University of Newcastle, NE2 4HH, UK (n.j.robinson@newcastle.ac.uk) who can also be contacted for further details on 0191 222 7695. We welcome visits from potential candidates who wish to see the quality of our research environment. The preferred closing date for applications is 25 February 2000.

Committed to Equal Opportunities

Announcements

NATIONAL INSTITUTES OF HEALTH
UNDERGRADUATE SCHOLARSHIP PROGRAM

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

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

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

For each award year, scholars work 10 weeks (with salary/benefits) in our research laboratories in Bethesda, MD. They are assigned mentors, participate in developmental and science enrichment seminars, and are provided with housing and transportation. After graduation, they work 1 year of full-time employment at NIH for each year of scholarship award.

WE SEEK YOUR ASSISTANCE IDENTIFYING STUDENTS WHO:

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

FOR MORE INFORMATION, CONTACT THE UGSP AT:

- Internet: http://ugsp.info.nih.gov
- E-mail: ugsp@nih.gov
- Phone: 1-800-528-7689
- TTY: 1-888-352-3001

This is a special opportunity for special students.

NIH is dedicated to building a diverse community in its training and employment programs.

VISIT OUR INTERNET SITE FOR ON-LINE APPLICATIONS

European Opportunities

COMISA

The World Federation of the Animal Health Industry

Comisa is the representative body for manufacturers of veterinary medicines and other animal health products. Its goal is to promote a harmonised, science-based regulatory and trade framework that supports a global animal health industry which is economically viable and high technology driven, contributing to a healthy and safe food supply.

Comisa is now seeking a:

Manager, International Policies & Technical Issues

Based in Brussels, Belgium to directly assist the Secretary-General in managing increasingly global technical issues in a rapidly changing political climate.

Your job will be to:

- represent industry at international meetings;
- act as central contact point for member associations and companies;
- prepare technical submissions and policy papers on issues such as international trade standards, antibiotic resistance and global regulatory harmonisation;
- monitor for new policy developments on relevant issues and keep industry membership fully informed;
- develop effective working relationships with industry experts and provide leadership with assigned project work.

You should possess a university degree and have a minimum of three years of successful experience related to the described job profile. You should have a strong interest for business, international politics, agriculture, and science. You must be PC and internet-literate. Other requirements will be the ability to work autonomously, work in cross-cultural environments, professional verbal and written communications in English and proven time management skills. Strategic and conceptual thinking and efficiency orientation are important behavioural competencies for a successful delivery of the job. The job will involve a certain amount of international travel.

Comisa will pay a competitive remuneration package commensurate with experience.

If you are interested, please send your expression of interest and full Curriculum Vitae to the Secretary-General, Comisa, rue Defacqz 1, B-1000-Brussels, fax: +32-2-541 01 19, e-mail: comisa@comisa.org

Confidentiality is guaranteed.

ETH Zürich

The Swiss Federal Institute of Technology in Zurich (ETHZ) invites applications for two positions of

Assistant Professor of Therapeutics Technologies

at the newly formed Department of Applied Biosciences. Candidates should have a strong scientific profile related either to discovery, engineering, or delivery of therapeutics. Innovative and future-oriented approaches will be preferred. Candidates are expected to develop a strictly interdisciplinary profile both within and outside the department. In addition, a commitment to modern teaching methods is expected.

Assistant professorships have been established to promote the careers of young scientists. The initial appointment is for three years, with the possibility of renewal for three additional years.

Applications including curriculum vitae, publication list, and statement on future teaching and research activities should be submitted to the **President of ETH Zurich, Prof. Dr. O. Kübler, ETH Zentrum, CH-8092 Zurich no later than March 31, 2000.** The ETHZ specifically encourages female candidates to apply with a view towards increasing the proportion of female professors.

POSTDOCTORAL AND LABORATORY SUPERVISOR POSITIONS THE UNIVERSITY OF TEXAS AT DALLAS

The Molecular and Cell Biology Department has openings for **POSTDOCTORAL RESEARCH ASSOCIATES** in the following laboratories:

Lee Bulla: Functional genomics/bioinformatics; molecular/cellular analysis of toxin-receptor interactions (postdoctoral and laboratory supervisor).

Jeff DeJong: Eukaryotic RNA pol II general transcription factors; gene regulation during spermatogenesis (postdoctoral).

Stephen Levene: Biophysical chemistry; DNA structure and topology in site-specific recombination (two postdoctoral positions).

Santosh D'Mello: Neuronal apoptosis; signal transduction pathways regulating apoptosis in CNS neurons (postdoctoral).

Candidates should have a strong background in biochemistry, biophysics, and/or molecular biology. Applicants should send a curriculum vitae, statement of research interests, and names of three references to the appropriate faculty member at: **The University of Texas at Dallas, Department of Molecular and Cell Biology, F03.1, P.O. Box 830688, Richardson, TX 75083-0688. Website: http://nsml.utdallas.edu/bio/.** *The University of Texas at Dallas is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS available immediately at the Wadsworth Center/University at Albany to investigate genes, especially quantitative trait loci (QTL), that influence complex behavior in the mouse. Genes influencing performance on various tasks that are dependent on learning and memory functions will be mapped and mutated. The nature of these genes will be explored. Microarray gene expression assays will be developed. Excellent state-of-the-art molecular genetic core facilities are available at the Center. Send curriculum vitae and names of three references to: **Dr. Lorraine Flaherty, Director, Genomics Institute, Wadsworth Center, P.O. Box 22002, Albany, NY 12201-2002. E-mail: flaherty@wadsworth.org.** *Equal Opportunity Employer/Affirmative Action.*

POSTDOCTORAL POSITION UNIVERSITY OF PITTSBURGH

A Postdoctoral position is available to study the molecular basis of melanoma development. Specifically, the project will focus upon the analysis of genes that are differentially expressed in the various stages of the progression pathway of melanoma. Interested individuals with substantial experience in molecular biology and/or molecular genetics are invited to submit their curriculum vitae and the names and addresses of three references to: **Dorothea Becker, Ph.D., Department of Pathology, University of Pittsburgh, BST E1050, 211 Lothrop Street, Pittsburgh, PA 15213 U.S.A.**

PRE- AND POSTDOCTORAL FELLOWSHIPS available in nutritional epidemiology to study nutrient-gene interactions in birth defects, osteoporosis, cognitive decline, and aging. Candidates should have strong training in epidemiology, biostatistics, and nutrition. Please send curriculum vitae and the names of three references to: **Dr. Ronald G. Munger, Department of Nutrition and Food Sciences, Utah State University, Logan, UT 84322-8700. FAX: 435-797-2771; e-mail: rmunger@cc.usu.edu.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIP at Cornell University Medical School, New York City. We are studying the pathogenesis of multiple myeloma with a particular focus on understanding the apoptotic response and the role of c-myc. Candidates with experience in molecular and cellular biology are encouraged to apply. Contact: **Dr. Andrew Bush, Room C-606, Division of Hematology/Oncology, 1300 York Avenue, New York, NY 10021.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS PROTEIN STRUCTURE AND FUNCTION UNIVERSITY OF ILLINOIS AT CHICAGO

Applications are invited for Postdoctoral positions in structural biology at UIC. The positions require a Ph.D. in structural biology, biochemistry, or a closely related field. Openings are available in the following laboratories:

Constance J. Jeffery, Ph.D. (1) Structure-function of the multifunctional protein phosphoglucose isomerase/autocrine motility factor (*Biochemistry* **39** (5):955–964, 2000). (2) Transmembrane transport and signaling.

Arnon Lavie, Ph.D. (1) Structure-function relationships of kinases important for prodrug activation, with emphasis on structure-based enzyme design (*Nat. Struc. Biol.* **4**:601–604, 1997; *Nat. Med.* **3**:922–924, 1997). (2) Protein-protein interactions of neuronal proteins.

Andrew Mesecar, Ph.D. (1) Molecular movies: structures of enzymes under catalytic turnover (*Science* **277**:202–206, 1997; *Nat. Struc. Biol.* **5**:891–897, 1998). (2) Allosteric drug design and enzymes in human diseases. (3) Enzyme engineering for bioremediation.

For further information, please see **website: http://www.uic.edu/~mesecar/positions**. Send curriculum vitae and names of three references to: **Barbara Poltzer, c/o Postdoctoral Positions, Department of Biochemistry and Molecular Biology, 1853 West Polk Street, MC536, Chicago, IL 60612.** *The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH FELLOWS TWO POSITIONS AVAILABLE COLUMBIA UNIVERSITY

(1) Neurovascular Laboratory, Department of Neurosurgery. (2) Stroke and Vascular Biology Laboratory, Department of Medicine. For Position (1), experience with rodent surgical models, preferably stroke. For Position (2), experience in basic molecular biology and with small animals. Both positions require willingness to work with large multidisciplinary group of investigators in premier stroke/vascular biology laboratories. M.D. or Ph.D. required. Send résumé to: **Susan McMahon, Columbia University, College of Physicians and Surgeons, Neurological Institute–Room 431, 710 West 168th Street, New York, NY 10032. E-mail: seml@columbia.edu.** *Columbia University takes Affirmative Action to ensure Equal Employment Opportunity.*

POSTDOCTORAL FELLOWSHIP/ RESEARCH ASSOCIATE

The Radiology Department, University of Michigan Medical Center, invites applications for a research position available immediately in the Ultrasound Group. The new NIH-sponsored project aims to investigate the enhancement of cancer gene therapy by ultrasound treatment. Candidates should have a Ph.D. or M.D. degree and experience in conducting cancer research involving mouse tumor models. A background in cancer biology, gene therapy, and/or ultrasound is desirable. Please send curriculum vitae to: **D. L. Miller, 3315 Kresge III, University of Michigan Medical Center, 200 Zina Pitcher Place, Ann Arbor, MI 48109-0553. E-mail: douglm@umich.edu.**

POSTDOCTORAL POSITION available immediately to study genomewide abnormal gene expression in leukemia (*Proc. Natl. Acad. Sci. U.S.A.* **95**: 11909–11914, 1998; *Proc. Natl. Acad. Sci. U.S.A.* **97**: 349–353, 2000). Candidates with experiences in gene expression and molecular biology techniques are encouraged to apply. Send curriculum vitae and names of three references to: **Dr. San Ming Wang, Janet Rowley Laboratory, Section of Hematology/Oncology, University of Chicago Medical Center, 5841 South Maryland Avenue, MC2115, Chicago, IL 60637. Telephone: 773-702-6788; FAX: 773-702-3002; e-mail: swang1@midway.uchicago.edu.**

POSITIONS OPEN

THE REYNOLDS POSTDOCTORAL FELLOWSHIP IN PHARMACOLOGY DALHOUSIE UNIVERSITY

Value: Reynolds Fellowships valued at $C33,000 (2000–2001) are tenable for one year in the Department of Pharmacology, Dalhousie University.

Qualifications: Applicants should have completed a Ph.D. within the last two years; a Ph.D. completed prior to 1998 is not eligible.

Application: There will be two competitions per year. Completed applications must be received no later than 15 March 2000 to begin 1 October 2000 or 1 October 2000 to begin April 2001. The candidate must contact and be sponsored by a Department of Pharmacology, Dalhousie University, faculty member. Information on the research interests of the faculty is available on our **website: www.medicine.dal.ca/dpharm/** or by writing directly to: **Department of Pharmacology, Sir Charles Tupper Medical Building, Dalhousie University, Halifax, Nova Scotia B3H 4H7 Canada.** The initial inquiry must include a curriculum vitae, graduate transcripts, the names and addresses of three references, and the name of the proposed supervisor. Correspondence should be addressed to: **A. K. Reynolds Fellowship Committee, Department of Pharmacology, Faculty of Medicine, Dalhousie University, Halifax, Nova Scotia B3H 4H7 Canada. FAX: 902-494-1388; e-mail: pharmacology@dal.ca.**

ELECTROPHYSIOLOGIST. A POSTDOCTORAL POSITION is available immediately to study ATP-gated ionotropic receptors in single cells isolated from mammalian cardiac and neural tissues. Candidate should have a Ph.D. and/or M.D. and experience with whole-cell and/or single-channel patch clamp techniques. Send curriculum vitae and names of three references to:

Terrance M. Egan, Ph.D./Mark Voigt, Ph.D.
Department of Pharmacological and Physiological Science
Saint Louis University School of Medicine
1402 South Grand Boulevard
St. Louis, MO 63104

Saint Louis University, a Catholic Jesuit institution dedicated to education, research, and health care, is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

Two **POSTDOCTORAL POSITIONS** are available from spring 2000 for strongly motivated individuals to work on (1) cell-based, structure-function studies of Bcl-2 apoptotic regulators and characterization of small molecule inhibitors or (2) development of high-throughput, protein-based screening assays for small molecule inhibitors of Bcl-2. Ph.D. in molecular biology, biochemistry, or related field required. Send letter of interest, curriculum vitae, and three letters of reference to: **Dr. David Hockenbery, Fred Hutchinson Cancer Research Center, Divisions of Human Biology and Clinical Research, 1100 Fairview Avenue North, C3-168, Seattle, WA 98109.** *Fred Hutchinson Cancer Research Center is an Equal Opportunity Employer committed to workforce diversity.*

POSTDOCTORAL POSITIONS available immediately to engineer enzymes for bioremediation and to develop novel drugs. Experience in protein purification, enzymology, and molecular biology preferred. Send curriculum vitae and three references to: **Dr. Lindsay D. Eltis, University of British Columbia, #300–6174 University Boulevard, Vancouver, British Columbia V6T 1Z3 Canada. E-mail: leltis@interchange.ubc.ca.**

Two **POSTDOCTORAL FELLOWSHIPS** are available in protein structure and function. Topics include allosteric enzymes and enzyme-catalyzed reactions. Send information to: **William N. Lipscomb, Department of Chemistry and Chemical Biology, Harvard University, 12 Oxford Street, Cambridge, MA 02138. Telephone: 617-495-4098; FAX: 617-495-3330; e-mail: lipscomb@chemistry.harvard.edu.**

Aventis

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From the start, Aventis Pharma will have the resources to become a leader in today's highly competitive pharmaceutical industry:
one of the world's largest research and development budgets, commercial strengths in all of the world's major markets, experienced international management and an outstanding workforce.

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For our Structural Biology group in Frankfurt we are seeking a

Protein Crystallization Expert

We are looking for a protein crystallization expert to set up a protein crystallization laboratory within our structural biology group. He or she will work in multidisciplinary project teams, aimed at specific drug targets.

The candidate should have a genuine interest and competence in crystallizing proteins and also in developing/evaluating new methods in this field. The ideal candidate has a Ph.D. and a proven track record in crystallizing proteins. However, applications of highly motivated scientists, interested in extending their expertise will also be considered.
Good communication and team skills are essential.

We offer a creative scientific and international environment, which will allow you to develop your skills very quickly.
Our state-of-the-art facilities give you the opportunity to fill this challenging position and prepare you for future career.
In addition we offer a competitive salary and an attractive bonus package which will suit your qualification.

To apply, please send a full curriculum vitae including names of references to:

Aventis Pharma
Deutschland GmbH
Application Service
Building K 607
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Germany

UNIVERSITY OF MANCHESTER
SCHOOL OF BIOLOGICAL SCIENCES

Lectureship in Plant Molecular Biology/ Biochemistry

Ref: 084/00

The School is one of the largest and most successful University Biological Science Departments in Europe. Applications are sought from suitably qualified candidates for the above post which is available from 1 September 2000, for three years in the first instance. The person appointed will be encouraged to establish a vigorous research programme and to contribute effectively to teaching. The position is linked to the appointment of Professor Mike Emes as Director of the Research and Graduate School in Biological Sciences, and is intended to sustain and complement teaching and research activities in Plant Science. We would especially welcome applications from those interested in exploiting genomics in the study of model organisms and crops, but are also interested in receiving applications from those with interests in plant biochemistry and molecular cell biology.

The appointment will be up to and including point 15 (grade B, currently £26,429 p.a.) on the lecturers scale.

Informal enquiries can be made to Professor Mike Emes. Tel: +44 (0)161 275 3899; *E-mail: mike.emes@man.ac.uk*

Application forms and further particulars are available from the Office of the Director of Personnel, The University of Manchester, Oxford Road, Manchester M13 9PL. Tel: +44 (0)161 275 2028; Fax: +44 (0)161 275 2471; Minicom (for the hearing impaired): +44 (0)161 275 7889; *E-mail: personnel@man.ac.uk Web site: http://www.man.ac.uk*

Closing date: 6 March 2000. Please quote reference number.

Information on the School and application forms can be found on *http://www.biomed.man.ac.uk*

As an Equal Opportunities Employer, the University welcomes applications from suitably qualified people from all sections of the community regardless of race, religion, gender or disability.

Position in cellular and molecular immunology

Sonderforschungsbereich 502
Pathogenesis and therapy of Hodgkin's lymphoma and related diseases

In the special research area SFB 502 in Cologne basic research and clinical analysis are understood as a joint project to solve problems associated with Hodgkin's disease. The SFB consists of 18 independent projects dealing with genetic, immunologic and therapeutic aspects of HD. There is a close cooperation with the Center of Molecular Medicine (ZMMK) and an independent Graduierten Kolleg. We are advertising a position for a young scientist to build up an independent research group. The position is offered for 3 years.

We strongly encourage applicants with fundamental knowledge in cellular immunology (T-cell immunology) and substantial knowledge in the field of antigen presentation. One of the main focuses should be a fundamental analysis of events occurring in the communication between antigen presenting cells, T-cells and Hodgkin cells.

The final decision will be made on the basis of scientific qualification and publication records.

The grant given by the Deutsche Forschungsgemeinschaft will provide the following resources:

a) the position of the applicant (BAT 1b)
b) the position for one postdoctoral researcher, one PhD student and one technician
c) consumables 45.000 DM/year, equipment 15.000 DM at the start of the project

Application with CV, bibliography and at least two references should be directed to:

Prof. Volker Diehl
Medizinische Klinik I der Universität zu Köln
Postfach 50924 Köln
SFB502@uni-koeln.de
The application deadline is February, 2000.

POSITIONS OPEN

Mayo Clinic **POSTDOCTORAL RESEARCH FELLOWSHIPS** in endocrinology: The Endocrine Research Unit, Mayo Clinic, has openings in an NIH-funded postgraduate training program for qualified M.D. and Ph.D. candidates. Fourteen NIH-supported and three junior faculty are involved in clinical and basic studies of: (1) diabetes/metabolism and obesity (**M. Jensen, R. Rizza, F. Schwenk, T. O'Brien, J. Levine,** and **S. Nair**); (2) bone/calcium metabolism (**L. Fitzpatrick, A. Kearns, R. Turner, S. Khosla,** and **L. Riggs**); (3) growth factors (**C. Conover**); (4) thyroid-stimulating hormone and thyroid iodide symporter (**J. Morris**); (5) Grave's ophthalmopathy (**R. Bahn**); thyroid cancer (**B. McIver**); and (6) control of gene expression (**N. Eberhardt** and **D. Tindall**). The programs provide excellent training experiences in well-equipped laboratories investigating molecular- , cellular- , and organ-level endocrinology. NIH stipends are supplemented according to standard Mayo policy. Appointments are made for a minimum two-year period, with maximum support up to three years. *Candidates must be U.S. citizens or have resident alien status.* Additional information available at **website: http://www.mayo.edu/research/endocrinology_research/**. Interested individuals contact: **Norman L. Eberhardt, Ph.D., 5–194 Joseph, Mayo Clinic, Rochester, MN 55905. Telephone: 507-255-6554; FAX: 507-255-4828; e-mail: eberhardt@mayo.edu**. *Mayo Foundation is an Affirmative Action and Equal Opportunity Employer and Educator.*

RESEARCH ASSISTANTS/ASSOCIATES/ SCIENTISTS
DEPARTMENT OF BIOLOGICAL SCIENCES
Wayne State University

Candidates for positions as **RESEARCH ASSISTANT, RESEARCH ASSOCIATE,** and **RESEARCH SCIENTIST** are being sought. Areas of interest include: cell-cell interaction and signal transduction, gene function and nucleic acid structure and function, and molecular evolution and developmental evolution. Such positions are usually dependent on grant/contract funding in existing research groups. Send curriculum vitae and list of three references to: **G. Chlebnik, Department of Biological Sciences, Wayne State University, Detroit, MI 48202.** *Wayne State University is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are strongly urged to apply.*

POSTDOCTORAL POSITION

Research position available to study signal transduction events associated with tumor cell adhesion. This NIH-supported work focuses on how tumor cell adhesion prevents drug-induced apoptosis. Investigations will include elucidating signal transduction pathways involved in β1 integrin-mediated drug resistance and development of drugs to prevent or disrupt signaling pathways associated with cell adhesion-mediated drug resistance. Applicants for this position should hold a Ph.D. with a background in molecular biology and/or signal transduction. Send curriculum vitae, brief description of research experience, and names of three references to: **W. S. Dalton, Ph.D., M.D., Moffitt Cancer Center, 12902 Magnolia Drive, Tampa, FL 33612-9497.**

POSTDOCTORAL ASSOCIATE to assist in the performance of neuroscience research on the development of the central nervous system. Required qualifications: Doctoral degree in a field of medical biology, chemistry, psychology, or a related field with experience performing original research. Highly desirable: experience with tissue culture and experience with pharmacological and molecular biology techniques. Desirable: experience in neuroscience and/or developmental biology research. Please refer résumé to: **Michael W. Miller, Ph.D., University of Iowa Department of Psychiatry, Psychiatry Research 1–286 MEB, Iowa City, IA 52242-1000.** *The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Women and minorities are strongly encouraged to apply.*

POSITIONS OPEN

NIDCD

National Institute on Deafness and Other Communication Disorders

NIH POSTDOCTORAL FELLOWSHIP TRANSCRIPTION AND CYTOKINES IN HEAD AND NECK CANCER
Carter Van Waes, M.D., Ph.D.

Transcriptional activation of genes including cytokines can promote malignant transformation, growth, and metastasis. The identity and function of transcription factors and target genes that promote malignant growth and metastasis in squamous cell carcinoma are being investigated using transcription assays and promoter analysis, microarray, and immunologic methods. Promising molecular diagnostic and therapeutic methods will be tested in clinical trials. To learn more about the laboratory, contact **website: http://www.nih.gov/nidcd/intram/labs/clin_hns.htm**. Postdoctoral position(s) are available July 2000. *Candidates must be U.S. citizens or permanent residents* and be a Ph.D. and/or M.D. with less than five years of postdoctoral experience. Apply to: **Tumor Biology Section, Head and Neck Surgery Branch, NIDCD, Building 10, Room 5D55, Bethesda, MD 20892-1419. Voice: 301-402-4216. FAX: 301-402-1140. E-mail: vanwaesc@nidcd.nih.gov.**

Available immediately. Two **POSTDOCTORAL OPENINGS** in the Nebraska Airways Research Group (NARG) at the University of Nebraska Medical Center (UNMC). A Ph.D. is required with experience in cell signaling, molecular biology, and/or animal models of disease. Funding is available for three years (initial one-year appointment; reappointments on a yearly basis). Send curriculum vitae with the names and addresses of three references to: **Todd Wyatt, Ph.D., University of Nebraska Medical Center, Department of Internal Medicine, Pulmonary and Critical Care Medicine Section, 985300 Nebraska Medical Center, Omaha, NE 68198-5300. Telephone: 402-559-4087; FAX: 402-559-8210**. For detailed information, go to **website: http://lung.unmc.edu**. *UNMC is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

POSTDOCTORAL POSITION available immediately to study the role(s) played by CNTF receptors in endogenous mechanisms of neuroprotection and neurorepair. The research will involve the use of surgical, anatomical, and molecular biology techniques to characterize *in vivo* CNTF receptor function following nervous system injury. Transgenic and viral vector techniques will be utilized to manipulate CNTF receptor expression and function *in vivo*. Experience with one or more of the relevant procedures is preferred. Please send curriculum vitae and names of three references to: **John MacLennan, Department of Neuroscience, University of Florida Brain Institute, Gainesville, FL 32610-0244. E-mail: maclen@nersp.nerdc.ufl.edu.**

Several **POSTDOCTORAL POSITIONS** are available for independent scientists with strong backgrounds in molecular biology and biochemistry. Work will focus on the roles of DNA mismatch and/or double-strand break repair proteins in cell cycle checkpoint regulation and drug resistance. Structure/function analyses as well as apoptotic regulatory pathways will be studied. Send curriculum vitae and three reference names by April 1, 2000, to: **Dr. D. A. Boothman, Department of Radiation Oncology, Case Western Reserve University, BRB–326E, 10900 Euclid Avenue, Cleveland, OH. E-mail: dab30@po.cwru.edu; website: http://pharmacology.cwru.edu**. *Case Western Reserve University is an Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

Two-year (NSF-funded) Postdoctoral research appointment emphasizing collaborative research on population genetics of host-pathogen interactions in both tropical and temperate amphibian systems. The research is highly integrative, involving over 20 Investigators and opportunities for laboratory rotations. The successful candidate will be required to have a strong background in molecular population genetics; some field experience and experience with amphibians and/or host-pathogen biology is highly preferred. Applicants must have received a Ph.D. in biology or related area prior to appointment and must not currently hold a permanent faculty position. Start date: approximately June 1, 2000.

Applicants must send the following to: **Dr. Andrew Storfer, Department of Wildlife Ecology and Conservation, 303 Newins-Ziegler Hall, University of Florida, Gainesville, FL 32611**: (1) curriculum vitae, (2) three letters of recommendation, (3) reprints of publications, and (4) description of previous research. Contact prior to submitting an application is encouraged (**e-mail: storfera@wec.ufl.edu; Telephone: 352-392-8375**). Application deadline is March 17, 2000, with applications reviewed weekly thereafter until the position is filled. Applications from two individuals wishing to share the position will be considered. *University of Florida is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE PLANT/MICROBIAL PHYSIOLOGIST

The United States Department of Agriculture (USDA), Agricultural Research Service (ARS), Southern Regional Research Center, New Orleans, Louisiana, is accepting applications for a Plant/Microbial Physiology Postdoctoral position. The individual will conduct research on the role phosphorus-containing compounds from agricultural runoff have on the development of harmful algal blooms (HAB). Determine the effect phytic acid and inositol phosphates have on these HAB. Candidates must have a knowledge of phosphorus uptake mechanism; Ph.D. in plant physiology or related field. Salary range is $41,834 to $50,139. Specific questions regarding the position may be directed to: **Dr. Edward J. Mullaney; Telephone: 504-286-4364**. Qualification requirements listed on ARS **website: http://www.ars.usda.gov.** *ARS is an Equal Opportunity Employer.*

POSTDOCTORAL MOLECULAR BIOLOGY AND BIOCHEMISTRY POSITION is available to study [Fe–S] protein structure and function and nitrogenase mechanism and assembly in *Azotobacter vinelandii*. The successful candidate must have a Ph.D. and have training in molecular biology and/or biochemistry, preferably with metalloprotein experience. Send, FAX, or e-mail curriculum vitae and have three letters of recommendation sent directly to:

Professor Barbara K. Burgess
Molecular Biology and Biochemistry
University of California, Irvine
FAX: 949-824-8551
E-mail: bburgess@uci.edu

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POSTDOCTORAL POSITION
NORTH SHORE
Long Island Jewish Medical Center Health System

Postdoctoral position to investigate molecular mechanisms of inflammation-induced injury and oxidative stress. Experience with HPLC desirable. Send curriculum vitae and names of three references to: **Dr. Harry Steinberg, Division of Pulmonary and Critical Care Medicine, Room C–20, Long Island Jewish Medical Center, 270–05 76th Avenue, New Hyde Park, NY 11040. FAX: 718-470-1035; e-mail: steinberg@lij.edu**. Long Island Jewish is the Long Island campus for the Albert Einstein College of Medicine. Please visit us at **website: www.northshorelij.com.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP available to investigate uses of DNA damage and DNA repair molecular pathways and technology as tools in clinical medicine. Ongoing translational research projects focus on the role of DNA damage and repair in breast cancer, tolerance of cancer chemotherapy in the elderly, and on the etiology of age-associated diseases. Candidate should have strong background in DNA damage/repair methodology, general molecular biology, and/or cellular biology. Position limited to M.D.s and Ph.D.s with less than five years of postdoctoral experience. Forward curriculum vitae and three letters of recommendation to: **Michele K. Evans, M.D., Gerontology Research Center, NIA, 5600 Nathan Shock Drive, Box 9, Baltimore, MD 21224-6825. E-mail: me42v@nih.gov.** *NIH is an Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS IN CELL/MOLECULAR NEUROBIOLOGY
University of California, Berkeley

Research on ion channels, synapses, cyclic nucleotides, and neuromodulation (**website: http://mcb.berkeley.edu/faculty**). Creativity, motivation, and experience in patch clamp electrophysiology, calcium imaging, or molecular biology/biochemistry required. Send curriculum vitae and names of three references to: **Richard Kramer, Ph.D., Department of Molecular and Cell Biology, 142 LSA, University of California, Berkeley, CA 94720-3200.**

FELLOWSHIPS

TWELVE POSTDOCTORAL FELLOWSHIPS FOR FIELDWORK ON ENDANGERED SPECIES
One Postgraduate Fellowship for Conservation Education

The Zoological Society of San Diego announces its Millennium Field Program in Conservation Science. Twelve Postdoctoral positions are available (to be filled between 2000–2002) for fieldwork on endangered species (mammals, birds, reptiles, and amphibians) and ecosystems. Projects may be carried out in any part of the world, but attention will focus on five geographical regions: Southwestern U.S.A., South America, Caribbean Islands, Pacific Islands, and China, as well as on additional areas/species of particular interest to the Society (e.g., rhinoceros species in southern Africa; primates and rainforest herpetofauna of Cameroon). It is envisaged that Postdoctoral Fellows will carry out field projects in collaboration with staff at the Center for Reproduction of Endangered Species (CRES) as well as with the Society's Curatorial, Veterinary, and Educational Departments. The CRES laboratories, with a total of 70 scientists and technical staff, offer expertise in the fields of behavior, ecology and applied conservation, endocrinology, genetics, pathology, reproductive physiology, virology/immunology and analytical chemistry. Funds for travel, equipment, and field expenses will be included in each Fellowship. Appointments will be for three years, with the possibility of extension to five years (maximum). Newly qualified Ph.D.s, and those with up to three years of postdoctoral experience are encouraged to apply. Also available is a Conservation Education Fellowship for postgraduate students, which will support the Zoological Society of San Diego's conservation and research projects through community outreach and awareness programs. Stipends will begin at $32,700, with adjustments according to experience.

Applications to include a curriculum vitae, reprints of up to three publications, and names and addresses of three references should be addressed to: **The Zoological Society of San Diego, Department of Human Resources (Millennium Fellowship Program), Post Office Box 120551, San Diego, CA 92112-0551 U.S.A.** *Equal Opportunity Employer/Affirmative Action.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS are available to study basic helix-loop-helix (bHLH) transcription factors in pancreatic development, function, and cancer model systems. Areas of research include but are not limited to (1) identifying bHLH binding partners and DNA binding specificities; (2) examining the role of specific signal transduction pathways; and (3) utilizing mouse genetic approaches, coupled with gene chip technology, to identify downstream target genes. A strong background in molecular and cellular biology is essential. Prior experience working with transgenic mice also is preferred. Please send a curriculum vitae and the names of three references to: **Stephen F. Konieczny, Ph.D., Department of Biological Sciences, Hansen Life Sciences Research Building, Purdue University, West Lafayette, IN 47907-1392.** See **website: http://www.bio.purdue.edu/courses/Koniecznylab/intropage.html** for more information. *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS: to study transcriptional regulation of genes involved in lipid biosynthesis and process of adipocyte differentiation. Research area includes (1) mode of action and regulation of factors that control adipocyte differentiation, including pref-1; and (2) mechanisms underlying transcriptional activation of lipogenic genes by insulin. Send curriculum vitae and names of three references to: **Dr. Hei Sook Sul, Department of Nutritional Sciences, University of California, Berkeley, CA 94720-3104. FAX: 510-642-0535; e-mail: hsul@nature.berkeley.edu.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

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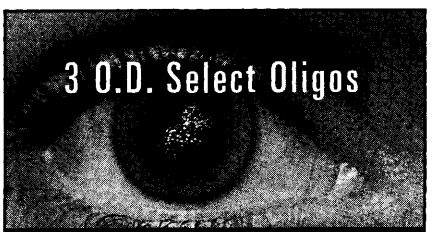

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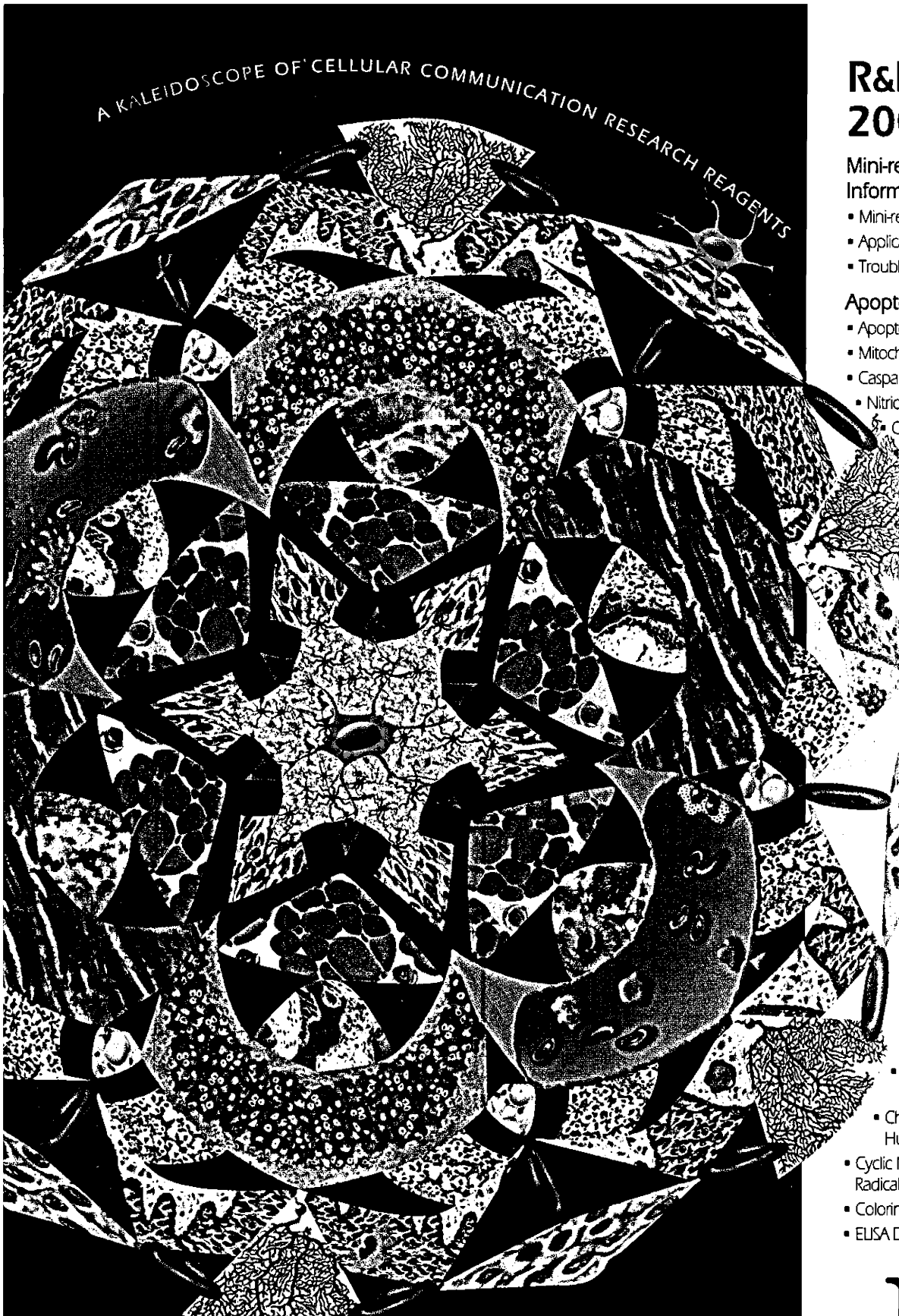

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