Gordon Research Conferences

Alexander M. Cruickshank

The Winter Gordon Research Conferences will be held 2 January to 25 March at the Doubletree Hotel (telephone: 805-643-6000), 2055 Harbor Blvd., Ventura, CA, and at the Casa Sirena Resort (telephone: 805-985-6311), 3605 Peninsula Road, Oxnard, CA. **Attendance is limited—recommend applicants apply immediately for early consideration by Chair.**

Requests for applications to the Conferences, or for additional information, should be addressed to: Dr. Alexander M. Cruickshank, Director, Gordon Research Conferences, Gordon Research Center, University of Rhode Island, Kingston, RI 02881-0801. Telephone: 401-783-4011/3372 or FAX: 401-783-7644 or BITNET address: BCP101@URIACC.

Angiotensin

Casa Sirena Resort, Oxnard, CA

A. T. Chiu, chair; D. Ganten, vice chair

13–18 February

Vascular Growth and Clinical Implications: C. Jackson and J. Towell, discussion leaders

M. Reidy, "The Proliferation of Arterial Smooth Muscle Cells: An Update on the Importance of Growth Factors and Receptor Expression in the Injured Artery."

C. Molloy, "Role of Vasoactive Hormones in Proliferative Cardiovascular Diseases."

G. Scicli, "Kinins as Partial Mediators of the effects of ACE Inhibition on Vascular Cell Growth."

Signal Transduction Mechanisms Leading to Growth Responses: K. Catt, discussion leader

I. Pfeilschister, "Growth Regulation of Mesangial Cells."

B. Berk, "Ang II-Stimulated Growth: Kinases and Phosphatases."

T. Balla, "Signaling Mechanisms of Ang II-induced Adrenal Growth Responses."

Transcriptional Regulatory Events in Control of Gene Expression: M. Schambelan, discussion leader

P. I. Fuller, "Unique Sequences in the Corticosteroid Receptor Induce Constitutive Transduction."

D. Pearce, "Mineralocorticoid and Glucocorticoid Receptor Interactions With Members of the AP1 Family of Transcription Factors."

F. Pinet, "Cis-Regulatory Elements and Transactivating Factors in Basal and cAMP-Stimulated Human Renin Gene Expression."

Approaches to Study Genetic Regulation of RAS in Development and Diseases: V. Dzau, discussion leader

A. Gomez, "Expression and Function of RAS Components During Fetal and Neonatal Development."

C. Sigmund, "Transgenic Models for Examining the Expression, Regulation, and Development of the RAS."

G. Gibbons, "In Vivo Gene Transfer to Study Genetic Regulation and Function of RAS."

Angiotensin II and Cardiac Hypertrophy: A. Husain, discussion leader

S. Izumo, "Growth Effects of Angiotensin on the Heart."

H. Watkins, "Hypertrophic Cardiomyopathy: A Genetic Model of Cardiac Hypertrophy."

K. Chien, "Molecular Mechanisms of Cardiac Hypertrophy."

Preclinical Pharmacology of the Inhibitors of the RAS: W. Hsueh, discussion leader

S. Sen, "Regression of Cardiac Hypertrophy: Role of the Renin-Angiotensin System."

S. Kivlighn, "In Vivo Pharmacology of Balanced (AT1/AT2) Receptor Antagonists, a Comparison With AT1-Selective Antagonists and ACE Inhibitors."

J. Harding, "AT4 Receptor and Antagonists: Physiology and Pharmacology."

Molecular and Functional Characterization of AT Receptor Subtypes: T. Inagami, discussion leader

K. Prendergast, "Molecular Modeling of AT1 Receptors."

I. Ichikawa, "AT1 Gene Mutation and Regulation of Kidney Functions."

Y. Kambayashi, M. Mukoyama, and S. Fluharty, "Cloning and Characterization of AT2 Receptors."

Issues on AT Receptor Subtypes, Functions, and Nomenclatures: TBA, discussion leader

Clinical Trials and Perspectives: H. R. Brunner, discussion leader

J. P. Clozel, "Significance of Animal Models to Predict Arterial Restenosis in Humans."

J. Menard, "What is the Future of Renin Inhibitors?"

E. Nelson, "Clinical Experience With Nonpeptide Angiotensin II Receptor Antagonists."

Biology of Aging

Casa Sirena Resort, Oxnard, CA

R. A. Miller, chair; O. Pereira-Smith, vice chair; J. Smith, vice chair

27 February–4 March

Calcium and Signal Transduction: J. Wei, discussion leader

B. Baum, "Signal Transduction in Parotid Acinar Cells of Different-Aged Rats."

E. Lakatta, "Neuroendocrine Cardiac Communication Deteriorates During Aging."

A. Grossmann, "Transmembrane Signaling and Redox States of T Lymphocytes."

Gene Expression (I): J. Papaconstantinou, discussion leader

M. Crow, "Vascular Diseases and Control of Smooth Muscle Differentiation."

J. Campisi, "Transduction Control of Growth Regulatory Genes in Cell Senescence."

J. Tower, "Senescence-specific Gene Expression in Drosophila."

Gene Expression (II): A. Richardson, discussion leader

R. J. Shmookler Reis, "Mapping of Non-Interactive Loci Affecting Life Span in *C. elegans*."

N. Klinman, "Altered B Cell Repertoire Expression in Aged Mice."

N. Rosenthal, "Transgenic Mouse Models of Muscle Aging."

Protein Stability and Degradation: D. Gershon, discussion leader

A. Gafni, "Age-Related Alterations in Protein Folding."

R. Levine, "Oxidation of Proteins During Aging."

V. Monnier, "Advanced Maillard Products in Aging and Age-Related Diseases."

Stability of the Genome: G. Martin, discussion leader

R. Monnat, "Basis for Werner Syndrome Mutator and Hyperrec Phenotypes."

C. Harley, "Telomore Dynamics in Cell Aging and Immortalization."

D. Wallace, "Mitochondrial Genetics in Aging and Degenerative Diseases."

Intercellular Interactions (I): C. Finch, discussion leader

R. Sapolsky, "Glucocorticoid Endangerment of Hippocampal Neurons."

J. Nelson, "Hyperadrenocorticism and Retardation of Aging by Calorie Restriction."

D. Felten, "Age-Related Changes in Sympathetic Innervation of Lymphoid Tissue."

Intercellular Interactions (II): E. Masoro, discussion leader

G. Wick, "T Cell Immune Reactivity Against HS Proteins Initiates Atherosclerosis."

B. Carlson, "Neuromuscular Regeneration and Aging."

F. Hefti, "Neurotrophic Factors in the Aging Brain."

R. Miller, discussion leader

S. Austad, "The Comparative Perspective in Gerontological Research."

Proliferative Homeostasis: J. Smith, discussion leader

S. Schwartz, "Smooth Muscle Diversity: Implications for Age-Associated Disease."

O. Pereira-Smith, "Genes Involved in Cellular Senescence and Immortalization."

J. Mountz, "Aging and Apoptosis and Expression of the *Fas* Apoptosis Gene."

Biology of Spirochetes

Doubletree Hotel, Ventura, CA

N. W. Charon, chair; A. Barbour, vice chair

2–7 January

Introduction and Evolution of the Spirochetes: R. C. Johnson, discussion leader

B. Paster, "Phylogeny of the Spirochetes Based on 16S rRNA Sequence Comparisons."

W. M. Huang, "Type II DNA Topoisomerase Genes in Spirochetes."

D. Dykhuizen, "Population Genetics and Infectious Diseases: Clonality of *Borrelia burgdorferi*."

Spirochete Chromosome Organization: I. Saint Girons, discussion leader

S. Norris, "Physical and Genetic Structure of the *Treponema pallidum* Chromosome."

B. Davidson, "Comparison of the Physical and Genetic Maps of Linear Chromosome of *Borrelia burgdorferi* and *Borrelia garinii*."

Spirochete Chromosome Organization and Genetic Exchange Systems: D. Yelton, discussion leader

T. Stanton, "Genome Map of *Serpulina* spp."

J. MacDougall, "Development of Plasmid pTD1 of *Treponema denticola* for Use as a Shuttle Vector."

A. ter Huurne, "*Serpulina hyodysenteriae* Hemolysin Genes as Analyzed by Gene Inactivation."

L. Joens, "Changes in the Lipooligosaccharide Activity of *Serpulina hyodysenteriae* Hemolysin Gene Mutants."

Motility and Chemotaxis: E. P. Greenberg, discussion leader

The author, director of the Gordon Research Conferences, is professor emeritus of chemistry, University of Rhode Island, Kingston, RI 02281-0801.

S. Goldstein, "Variation on a Theme of Motility Among Spirochete Species."

R. Limberger, "Structural and Genetic Analysis of the Flagellar Hook of *Treponema phagedenis*."

Flagellar Gene Regulation, Plasmids, and Insertion Elements: P. Rosa, discussion leader

S. Bergstrom, "Regulation of Flagellar and Outer Surface Protein Genes of Lyme Disease *Borrelia*."

T. Schwan, "Distribution and Biological Significance of Circular Plasmids in the Genus *Borrelia*."

R. Zuerner, "IS-Like Elements and Other Types of Repetitive DNA in *Leptospira*."

Spirochete Host Cell and Tissue Interactions: A. Barbour, discussion leader

R. Ellen, "Cytopathic Responses of Eukaryotic Cells to the Adhesion of *Treponema denticola*."

J. Leong, "Interaction of *Borrelia burgdorferi* With Host Cells."

Spirochete Host Cell and Tissue Interactions: D. Thomas, discussion leader

H. Kuramitsu, "Analysis of Putative Virulence Genes in *Treponema denticola*."

B. McBride, "Structure and Function of a *Treponema denticola* Cell Surface Array Protein."

J. Benach, "The Role of Several Borrelial Antigens in Adhesion."

Spirochetal Virulence Factors: B. Wilske, discussion leader

D. Blanco, "Identification of Spirochetal Exported and Membrane-Associated Proteins."

C. Penn, "Predicted Function and Location of a 41 kD Lipoprotein of *Treponema pallidum*."

Spirochetal Virulence Factors: J. Miller, discussion leader

J. Radolf, "Molecular Architecture of the *Treponema pallidum* Outer Membrane: Implications for Syphilis Pathogenesis."

M. Lovett, "Outer Membrane Proteins and Immunity in Spirochetal Infections."

S. Lukehart, "Interactions of *Treponema pallidum* With Macrophages: Pathogenesis and Immunity."

M. Norgard, "Structure-Function Relationships of Spirochetal Lipoproteins."

Chemistry of Electronic Materials

Doubletree Hotel, Ventura, CA

F. A. Houle, chair; M. Gross, vice chair

6–11 March

Materials for Nanoscale Devices: B. Scott, discussion leader

K. Kash, "Issues and Prospects for the Fabrication of III-V Semiconductor Quantum Wires and Dots."

B. Gnade, "Materials for Silicon-Based Nanoelectronics."

F. Wudl, "Functionalization of C_{60} for Novel Materials."

Local Processing: R. M. Osgood Jr., discussion leader

J. Carlsson, "Chemical Aspects of Selective CVD."

Patterning: T. Mayer, discussion leader

S. Beaumont, "Processing Damage in III-V Nanoelectronic Devices."

J. Yarmoff, "Defects and Halogen-Semiconductor Surface Reactions."

C. Marrian, "High Resolution Lithography With Self-Assembling Films."

Surface Preparation and Characterization: G. Higashi, discussion leader

M. Hirose, "Atomic Scale Characterization and Control of Silicon Surface Cleaning and Ultrathin Oxide Growth."

M. Banaszak-Holl, "The Si/SiO_2 Interface: New Structures and Well-Defined Model Systems."

Chemistry and Morphology: T. Kuech, discussion leader

B. Wilson, "Atomic and Mesoscopic Structure of Au and Fe Films on Clean and Oxidized W(110)."

A. Zangwill, "Morphological Consequences of MOCVD and MOMBE Growth Kinetics."

J. Heath, "Chemistry and Electronic Properties of Group IVa Quantum Structures."

Approaches to Materials Synthesis: A. Barron, discussion leader

M. Hampden-Smith, "Synthesis and Reactivity of Nanostructured Materials."

New Materials Strategies:

P. Bianconi, "Biomimetic Synthesis of Organized Organic/Inorganic Composites."

T. Weidman, "Photochemical Properties of Plasma Deposited Organosilicon Precursors to SiO_2."

G. Timp, "Using Light as a Lens for Atom Optics."

Interfacial Chemistry: J. M. White, discussion leader

E. Kaxiras, "Theoretical Studies of Atomic Structure and Dynamics of Thin Films on Semiconductor Surfaces."

J. Behm, "STM Investigations of Corrosive Reactions at Si Surfaces."

Toward Chemical Control in Nanostructure Fabrication: M. Gross, discussion leader

S. Cohen, "Wafer Cleaning for Semiconductor Manufacturing: What is the State of the Art in Atomic Level Defect Detection and Control?"

Composites

Doubletree Hotel, Ventura, CA

N. Johnston, chair; D. Grande, vice chair

9–14 January

Matrix Synthesis: J. McGrath and F. Harris, discussion leaders

P. Hergenrother, "Recent Advances in High Performance Composite Matrices."

M. Southcott, "Advanced Thermoset Polyimides Via Addition Functionalization."

Fabrication Technology: J. DeVault and W. Schultz, discussion leaders

C. Browning, "Past Lessons, Future Paths: The DOD Experience."

J. Seferis, "Scaling Phenomena for Composite Prepregging."

Fabrication Technology: D. Gill and TBA, discussion leaders

C. Saunders, "Electron Beam Curing of Fiber-Reinforced Components: Current and Future Developments."

J. Manson, "Complex Forming of Thermoplastic Composites."

Advanced Tow Placement Technology: D. Grande and J. Marchello, discussion leaders

D. Cairns, "Consequences of Material Architecture on the Fracture Performance of Automated Tow Placed Structures."

J. Gillespie Jr., "Process Modeling for Advanced Tow Placement of Thermoplastic Composites."

Textile Technology/Interfaces: C. Poe, H. B. Dexter, and L. Drzal, discussion leaders

C. Pastore, "Role of Fiber Architecture in the Design of Textile Composites."

B. Cox, "Design and Reliability Concepts for Textile Composites."

J. Miller, "A Study of Interfacial Bonding on Thermoplastic Composites Using Voltage Contrast XPS."

Mechanics/Modeling: S. Sternstein and J. G. Williams, discussion leaders

J. Fish, "Multiscale Modeling of Composite Materials and Structures."

R. Badaliance, "Simulation of Structural Response of Damaged Composites Using Dissipated Energy Density."

Studies in Compression/Matrix Morphology: A. Yee, J. Starnes, and P. McGrail, discussion leaders

T. Ishikawa, "Mechanics of Compressive Failure in Carbon Fiber/Thermoplastic Composites."

K. Kedward, "Micromechanical Mechanisms in Compressive Failure."

R. Pethrick, "Dielectric, Mechanical, Rheological and Electron Microscopy Studies on Thermoplastic-Modified Epoxy Matrices."

Non-Aerospace Applications: S. Wang and D. Williams, discussion leaders

W. Bradley, "Marine and Petroleum Industry Applications of Composites: New Opportunities and Challenges."

V. Karbhari, "Composite Activities in the National Infrastructure."

Time-Dependent and Environmental Effects: W. Knause and D. Hunston, discussion leaders

T. Gates, "Time Dependent Behavior in Carbon-Fiber-Reinforced Polymeric Composites."

D. Dillard, "Environmental and Solvent Effects on High Performance Composites."

Electrochemistry

Doubletree Hotel, Ventura, CA

C. M. Elliott, chair; J. Janata, vice chair

16–21 January

H. S. White, discussion leader

M. M. Majda, "Dynamics of Molecular Diffusion and Electron Hopping at the Air/Water Interface."

J. Osteryoung, "Transport of Simple Ions in Complex Fluids."

V. R. Koch; discussion leader

J. R. Dahn, "Li-Ion Batteries: Opportunities for Future Research."

D. F. Shriver, "Polymer Electrolytes: New Materials and Understanding."

D. R. Rolison, discussion leader

Y. Umezawa, "Molecular Sensing Based on Transmembrane Signals."

J. Janata, "Chemical Modulation of Electronic Properties of Organic Semiconductors."

J. A. McIntyre, discussion leader

A. B. Holmes, "Polymer LED's—A Question of Balanced Charge Injection."

T. M. Cotton, "Spectroscopy of Membrane Proteins on Electrode Surfaces."

J. L. Lenhard, discussion leader

M. T. Spitler, "Electrochemistry at Silver Halides—Spectral Sensitization and Microelectrode Models for Photographic Development."

M. Gratzel, "Nanocrystalline Electrochemical and Photovoltaic Devices."

H. N. Blount III, discussion leader

C. P. Horwitz, "Redox Responsive Macrobicyclic Receptor Molecules."

D. K. Smith, "Electrochemically Controlled Binding and Molecular Receptors."

R. M. Penner, "Nanoscopic Electrochemical Deposition and Synthesis Using the STM."

M. J. Sailor, "Electrochemistry of Luminescent Porous Silicon."

B. A. Parkinson, discussion leader

T. J. Meyer, "Images and Microstructures in Metallo-Polymeric Films."

M. A. Ratner, "Electron Transfer Correlation Functions and Some Teasing Questions."

W. E. Geiger, discussion leader

F. C. Anson, "Chemical Aspects of Electrocatalysis."

H. Abruna, "Redox-Induced Reactivity of Transition Metal Complexes."

Innovations in College Chemistry Teaching

Casa Sirena Resort, Oxnard, CA

A. B. Ellis, chair; A. M. Stacy, vice chair

9–14 January

New Reagents of Chemistry Education: Incorporation of Videos and Computers: R. Lichter, discussion leader

N. Lewis, "Development of Computer Graphic Visualization Aids for the Undergraduate Chemistry Curriculum."

B. Sawrey, "An Interactive Lab Manual: Increasing Student Learning in the Lab With Computer Use Outside the Lab."

J. Moore, "A User-Friendly General Chemistry Course."

B. Shakhashiri, discussion leader

S. Thompson, "Small-Scale Chemistry: Mapping Chemistry for the Next Millenium."

Bonding Human Resources: Methods and Styles of Teaching: W. Lester, discussion leader

S. Tobias, "What Do Our Tests Tell Our Students, About Themselves and Science?"

E. Mazur, "Understanding Our Memorization: Are We Teaching the Right Thing?"

U. Treisman, "Lessons from the Reform Movement in Undergraduate Mathematics Education."

J. Stewart, discussion leader

C. Middlecamp, "Culturally-Inclusive Chemistry."

E. Peace, "Instruction by Guided Inquiry: Let's Teach What We Practice."

Hybridization of Chemistry: Biological Materials, and Environmental Chemistry: M. Darensbourg, discussion leader

S. Ege, "Structure and Reactivity as a First-Year Course in Chemistry."

T. Schwartz, "Chemistry in Context: Weaving the Web."

G. Lisensky, "A Material Science Companion: Solids in the Foundation."

C. Gutierrez, discussion leader

R. Eisenberg, "Ventures in Chemistry: Alternative First-Year Chemistry for Science Students—and More."

J. Droske, "New Initiatives in Polymer Education."

H. McGee, " 'Cook-Book' Chemistry Redefined."

A New Transition State: Revamping the Undergraduate Curriculum: A. Thompson Jr., discussion leader

A. Ingraffea, "Engineering Education Coalitions: A Model for Curricular Reform for Chemistry?"

N. Rose, "Into the 21st Century: The Next Generation of Publishing."

T. Pearsall, "Visualization and Analysis of Complex Sets of Data: Applications to Teaching and Research in the Physical Sciences."

R. Watson, discussion leader

H. Gray, "Chemistry Departments of the Future."

Experiments With Experiments: E. Heath, discussion leader

S. Kegley, "Framing Chemistry in a Social Context: Environmental Issues as a Tool for Teaching Freshman Chemistry."

P. Laws, "Workshop Physics as a Model for Reforming Introductory Science Teaching."

L. Kaplan, "Forensic Science. Crime in the Chemistry Curriculum."

Isotopes in the Physical & Life Sciences

Casa Sirena Resort, Oxnard, CA

M. Saunders, chair; J. Klinman, vice chair

6–11 March

J. A. Berry, "Fractionation of Oxygen Isotope in Respiration: Probing the Mechanism and Regulation of Mitochondrial Electron Transport."

W. T. Borden, "Calculation of Isotope Effects in Cyclopropane."

J. I. Brauman, "Potential Surfaces, Energy Distributions, and Isotope Effects in Gas-Phase Reactions."

V. Buch, "Isotope Effects in Weakly Bonded Systems."

R. Callendar, "Vibrational Studies of the Enzymic Phosphoryl Transfer Reaction Mechanism in Phosphoglucomutase."

B. Carpenter, "Dynamically Determined Isotope Effects."

G. M. Clore, "Studies of Larger Proteins and Protein Complexes by Multidimensional Heteronuclear NMR."

S. Epstein, "Isotopic Climatic Temperature Records."

C. Grissom, "Magnetic Spin Effects in Enzymatic Reactions."

P. Huskey, "Mechanistic Insights from Isotope Effects on Isotope Effects."

A. J. Kresge, "Isotope Effects in H_2O-D_2O Mixtures."

H. Limbach, "Liquid and Solid State NMR Studies of Hydrogen/Deuterium Isotope Effects in Degenerate Single, Double, Triple, and Quadruple Proton Transfers."

K. Mauersberger, "A Multi-Isotope Study of Ozone."

M. O'Leary, "Carbon Isotope Fractionation in Plants—The Next Generation."

C. L. Perrin, "Symmetry of Hydrogen Bonds."

R. Poreda, "Recent Advances in the Isotopic Dating of Young Groundwaters."

I. Rose, "Proton Transfers in Enzymes."

H. Schwarcz, "Stable Isotopes in the Diets of Humans and Corals."

M. H. Thiemens, "Recent Advances in Mass-Independent Isotope Effects and Their Observations in the Upper Atmosphere and Early Solar System."

A. Warshel, "Computer Simulation of Quantum Mechanical Tunneling in Enzymatic Reactions."

D. Wemmer, "Use of Tritium Labeling and NMR in Analysis of Biomolecular Interactions and Activities."

S. Wolfe, "Theoretical Calculations of Hydrogen-Deuterium Isotope Effects: Methyl Transfers, Hydrogen Transfers, and Inventories for 1,2,3,4 Protons-in-Flight."

Macromolecular & Polyelectrolyte Solutions

Casa Sirena Resort, Oxnard, CA

R. Pecora, chair; R. Klein, vice chair

6–11 February

Colloids, Aggregates, Gels: B. Chu, discussion leader

M. Giglio, "Dynamic Depolarized Light Scattering From Aggregates of Optically Anisotropic Colloidal Particles."

R. Bansil, "Mucin."

P. Chaikin, "Sedimentation and Fluidization of Colloidal Crystals."

R. Nossal, discussion leader

A. Yodh, "Structure and Dynamics of Dense Colloidal Suspensions Probed by Diffusing Light Spectroscopies."

M. Doi, "Deformation of Ionic Polymer Gels by Electric Fields."

Rigid Rod Polymers and Polyelectrolytes: K. S. Schmitz, discussion leader

P. Russo, "Dynamics of Rigid Rod Polymers in Nondilute Solutions."

W. Eimer, "Actin: Flexibility, Polymerization and Dynamics in Dilute and Nondilute Solution."

A. Khokhlov, "Microdomain Structures in Polyelectrolytes, Ionomers and Related Systems."

J. M. Schurr, discussion leader

E. Amis, "Repulsion and Attraction in Salt-Free Solutions of Polyelectrolyte Rings, Spheres, Rods, and Chains."

K. Kremer, "Correlations Between Counterion and Polymer Shape Fluctuations in Polyelectrolyte Solutions."

Polymer Solutions and Molecules in Confined Spaces: T. P. Lodge, discussion leader

R. Larson, "Molecular Dynamics and Stresses in Sheared Solutions of Flexible and Rigid Macromolecules."

K. H. Langley, "Polymer Diffusion in Confined Geometries."

X. Wu, "Structure and Dynamics of Confined Liquid Crystals in Porous Hosts."

Micelles and Microemulsions: S. J. Candau, discussion leader

J. Bibette, "Gelation and Crystallization of Microemulsions."

J. S. Huang, "Studies of the Structure and Dynamics of Polymeric Micelles."

Advances in Techniques: D. J. Pine, discussion leader

J. Ricka, "Single Mode Optical Fiber Dynamic Light Scattering."

C. Bustamante, "Measurement of the Elasticity of Single DNA Molecules Using Magnetic Beads."

C. S. Johnson, "Transport-Ordered 2D NMR."

R. Pecora, discussion leader

S. Provencher, "Avoiding Artifacts and Bias in the Inversion of Scattering Data."

M. Fixman, "General Discussion: What Are the Important Problems? How Can They Be Solved?"

A. Gast, discussion leader

P. Pusey, "Colloid Polymer Mixtures."

R. Klein, "Combined Effects of Electrostatic and Hydrodynamic Interaction on the Dynamics of Spherical Particles."

Marine Natural Products

Doubletree Hotel, Ventura, CA

R. Andersen, chair; W. Gerwick, vice chair

20–25 February

W. Gerwick and R. Moore, discussion leaders

C. Ireland, "Marine Natural Products: Mechanisms of DNA Damage."

G. Martin, "How Much You Can Do & How Little Can You Do It On?—Recent Advances in Micro Detection NMR."

K. Rinehart, discussion leader

D. Slate, "Antitumor Drug Discovery and Marine Natural Products: Mechanism-Based Screening and Serendipity."

J. Cardellina and M. Munro, discussion leaders

G. R. Pettit, "Recent Advances in the Discovery of Marine Animal Anticancer Constituents."

R. Armstrong, "Synthesis of the Marine Natural Product Calyculin C."

P. Crews, discussion leader

J. Thompson, "Aquacultural Production of Bryostatin 1."

Y. Shimizu and M. Garson, discussion leaders

H. Fujiki, "Tumor Promotion of Microcystin and Nodularin in Rat Liver."

A. Brash, "Biosynthesis and Metabolism of Allene Oxides."

B. Carte, discussion leader

D. J. Faulkner, "Sponge Metabolites and Symbionts."

V. Paul and B. Fenical, discussion leaders

N. Lindquist, "Chemical Defense of Larvae: Seeds of Marine Invertebrates."

G. Cimino, "Chemistry and Biology: A Powerful Couple to Investigate the Ecology of Benthic Invertebrates. Selected Studies of Opisthobranches from Southern European Coasts."

P. J. Scheuer, discussion leader

T. Yasumoto, "Maitotoxin and Other Polyethers of Marine Microalgae."

N. Fusetani and T. Molinski, discussion leaders

R. Johnson, "The Role of Marine Natural Products in Mechanism-Based Screening."

Metals in Biology

Doubletree Hotel, Ventura, CA

J. T. Groves, chair; E. Theil, vice chair

23–28 January

Metal Ion Interactions With RNA:

A. M. Pyle, "Ribozymes as Metalloenzymes."

T. Steitz

E. Theil, "Structure and Function of the mRNA Iron Regulatory Element."

O. Uhlenbeck, "Selection of Ribozymes With Metal Ions."

Iron Oxygenases: Structure, Mechanisms, and Models

M. Amzel, "Structure of Arachidonic Acid 15-Lipoxygenase."

J. Deisenhofer, "Structure of Cytochrome P-450BM-3."

J. Loehr, "O_2 Activation by Ribonucleotide Reductase and Stearoyl-ACP Desaturase."

L. Que, "Non-heme Iron Metallobiochemistry."

S. Lippard, "Methane Monoxygenase."

J. Lipscomb, "Methane Monoxygenase."

Marine Bioinorganic Chemistry:

K. Bruland, "Trace Metals in the Ocean."

A. Butler, "Alterobactins: New Siderophores from Marine Bacteria."

F. Morel, "Iron in Marine Ecosystems."

K. Raymond, "Amonabactins: Fresh Water Siderophores."

Membrane Biochemistry of Metal Ions: Transport and Signal Transduction

M. Montal, "Synthetic Channel Proteins."

C. Miller, "Potassium Channels."

S. Opella, "NMR Structures of Channel Proteins."

R. Tsien, "Calcium Channels."

Structure and Function of Metal Centers in the Nitrogenase Family:

E. Stiefel, discussion leader

W. Orme-Johnson, "On the Mechanism of Nitrogenase."

J. Bolin, "Crystal Structure of Nitrogenase MoFe Protein."

B. Burgess, "Ferredoxins."

K. Hodgson, "Structure of FeMoco from X-Ray Absorption Spectroscopy."

The Bioinorganic Chemistry of NO:

M. Marletta, discussion leader

B. Freeman

S. Tannenbaum

Transmembrane Redox Centers: Cytochrome Oxidase and Photosynthetic Reaction Centers: G. Babcock, discussion leader

J. Golbeck, "Photosystem I."

M. Wikstrom, "Binuclear Center of Respiratory Oxidases."

Myelin

Casa Sirena Resort, Oxnard, CA

A. T. Campagnoni, chair; D. Colman, vice chair

13–18 March

Molecular Genetic Manipulation of Myelinating Cell Function: J. Roder, discussion leader

G. E. Lemke, "Targeted Distribution of Schwann Cell Differentiation."

H. J. Federoff, "Delivery of Genes to the CNS with Viral Vectors."

J. Roder, "Null Mutants and Splicing Mutants at the MAG Locus."

Molecular Genetics of Myelin Genes and Myelin Disorders: K. Suzuki, discussion leader

M. Schachner, "Myelin Protein Gene Knockouts."

J. L. Mandel, "The Gene Responsible for Adrenoleukodystrophy: An Unanticipated Function."

K. Suzuki, "Sphingolipid Activator Gene: Molecular Basis of Lysosomal-Myelin Disorders."

Neuron-Oligodendrocyte Communication: D. Colman, discussion leader

S. Brady, "Myelinating Schwann Cells: Sculpting the Functional Architecture of the Axon."

H. Kettenmann, "Ion Channels in Glial Cells."

D. Colman and C. Lagenauer, "The New Proteolipid Protein Gene Family of Neurons and Glial Cells and the Concept of the Adhesive Pore."

Molecular Sorting in the Myelinating Cells: E. Barbarese, discussion leader

J. Benjamins, "Sorting of Glycolipids and Glycoconjugates in Myelinating Cells."

J. H. Carson, "Transport and Localization of mRNAs in Oligodendrocytes."

A. Gow and M. Sinoway, "Intracellular Trafficking of PLP/DM2O Proteins in Fibroblasts."

Oligodendrocyte Damage and Death: J. E. Merrill, discussion leader

J. E. Merrill, "Nitric Oxide–Mediated Oligodendrocyte Damage and Death."

C. F. Brosnan, "Cytokines and Oligodendrocyte Cell Death."

M. Rodriguez, "Immune-Derived Factors Affecting Demyelination and Remyelination."

Development, Migration and Death of Myelinating Cells: J. Goldman, discussion leader

R. Miller, "Oligodendrocyte Development and Migration in Spinal Cord."

B. Barres, "The Role of Neurons in Oligodendrocyte Development."

J. Goldman, "Fate Selection and Development Restriction of Immature Neuroectodermal Cells."

Neuroimmune Involvement in Myelin Degenerative Diseases: R. H. Swanborg, discussion leader

R. H. Swanborg, "Cytokine Regulation of Autoimmune Encephalomyelitis."

R. S. Fujinami, "Viral Mimicry Leading to Protection or Demyelinating Disease."

H. Wekerle, "Autoimmune T Cells Against S-100 Protein."

Growth Factors and Oligodendrocyte Function: J. de Vellis, discussion leader

J. de Vellis, "The Role of Early Response Genes in Regulating Oligodendrocyte Function."

D. Pleasure, "Growth Factor Regulation of Proliferation and Death of Mature Oligodendrocytes."

Therapeutic Approaches to Myelin Degenerative Diseases: K. P. Johnson, discussion leader

K. P. Johnson, "Current Status of Clinical Research in Multiple Sclerosis."

J. Wolinsky, "Use of MRI to Chart MS Myelin Damage and the Course of Experimental Therapy."

H. McFarland, "Perspectives for Treatment of Multiple Sclerosis With Novel Molecules: Cytokines, Monoclonal Antibodies, and Receptor Vaccines."

Organic Thin Films

Doubletree Hotel, Ventura, CA

C. W. Frank, chair; J. Rabolt, vice chair

27 February–4 March

Langmuir and Langmuir-Blodgett Films: Structure: J. Lando, discussion leader

D. Mobius, "Molecular Organization of Complex Monolayers as Probed by Brewster Angle Microscopy."

R. S. Duran, "Monolayers and Multilayers of Smectic C* Forming Liquid Crystal Polymers."

J. Zasadzinski, "Analogies Between Smectic Liquid Crystals and Langmuir-Blodgett Films by Atomic Force Microscopy."

Langmuir and Langmuir-Blodgett Films: Dynamics: G. Gaines, discussion leader

I. Yamazaki, "Molecular Association and Excitation Energy Relaxation in Langmuir-Blodgett Films."

E. I. Franses, "Ion Binding and Ion Exchange Dynamics in Langmuir Monolayers and Langmuir-Blodgett Films."

Functional Langmuir-Blodgett Multilayers: R. Leblanc, discussion leader

G. Wegner, "Ultrathin Films of Hairy-Rod Polymers and Their Functional Properties."

M. C. Petty, "Langmuir-Blodgett Films of Charge-Transfer Complexes."

T. L. Penner, "Efficient Frequency Doubling in Organic Thin Films Through Structural Control at Molecular Dimensions."

Molecular Dynamics: A. Balazs, discussion leader

P. Thompson, "Simulations of the Phase Behavior and Dynamics of Ultraconfined Films."

J. G. Harris, "Relating Macroscopic Properties of Confined Thin Films to Microscopic Chemistry and Intermolecular Forces—Computational Experiments."

Self-Assembled Monolayers: S. Baron, discussion leader

G. Scoles, "Liquid Phase Self-Assembly vs. Molecular Beam Deposition of Organic Monolayers."

M. B. Salmeron, "Atomic Structure and Mechanical Properties of Organic Monolayers: Lubricity, Stability, and Molecular Conformation."

R. M. Crooks, "Synthesis and Characterization of Chemically Sensitive Organic Monolayer Surfaces."

Chemistry at Surfaces: T. J. McCarthy, discussion leader

G. Wildburg, "Molecular Recognition at Interfaces via Hydrogen Bonds and Charge Transfer Interactions."

J. Jacobs, "Light-Directed Chemical Synthesis of Peptides."

Layer-by-Layer Adsorption: A. Ulman, discussion leader

T. Mallouk, "Self-Assembly of Inorganic Monolayer and Multilayer Thin Films."

M. F. Rubner, "Layer-by-Layer Molecular Self-Assembly of Electrically Conductive Polymers."

G. Decher, "New Nanocomposite Films via Layer-by-Layer Adsorption: Polyelectrolyte Self-Assembly, Fullerene Multilayers and 2D Protein Arrays."

Protein and Colloid Two-Dimensional Arrays: C. Chidsey, discussion leader

K. Nagayama, "Industrial Scale Fabrication of Crystalline Array Films of Protein and Colloid Particles."

Physics of New Thin Film Techniques: H. Riegler, discussion leader

S. Martin, "Extraction of Polymer Thin Film Viscoelastic Properties Using Acoustic Devices."

W. Knoll, "Recent Developments in Surface Plasmon and Waveguide Optics With Grating Couplers."

T. Russel, "Grazing Incidence X-ray Scattering Studies on Polymer Thin Films."

Oxygen Radicals in Biology

Doubletree Hotel, Ventura, CA

D. J. Reed, chair; K. J. A. Davies, vice chair

6–11 February

Superoxide and Superoxide Mimics: R. Weiss, discussion leader

I. Fridovich, "Superoxide Dismutase."

J. Wispe, "Transgenic Animals and Superoxide Dismutase."

G. Czapski, "The Requirements of SOD Mimics to be Effective in Vivo."

C. Schasteen, "SOD Mimics."

Oxidants and Human Disease: B. Ames, discussion leader

E. Schon, "Accumulation of mDNA Mutations in Aging."

T. Siddique, "Mutations in Cu-Zn SOD and Familial Amyotrophic Lateral Sclerosis (FALS)."

Nitric Oxide, Superoxide and Peroxynitrite: W. A. Pryor, discussion leader

J. Beckman, "Overview of Nitric Oxide, Superoxide and Peroxynitrite."

M. Marletta, "Nitric Oxide Synthases and the Biochemistry of NO Formation."

L. Keefer, "Chemistry and Toxicology of NO and its Progenitors."

L. J. Ignarro, "Signaling and Nitric Oxide."

Iron-Generated Oxidative Stress: C. Rice-Evans, discussion leader

G. Minotti, "Sources of Iron for Oxidative Stress: Biochemical and Biomedical Aspects."

E. C. Theil, "Iron Regulatory Element (IRE) and Ferritin Gene Expression."

Regulation of Gene Expression by Oxidants: K. Davies, discussion leader

G. Storz, "OxyR Regulation of Antioxidant Genes."

B. T. Mossman, "Oxidants and Regulation of Antioxidant Enzymes."

C. B. Pickett, "Gene Response Elements and Antioxidants."

C. V. Lowry, "Regulation of Gene Expression by Oxygen in Yeast."

Regulation of Gene Expression by Oxidants: L. Marnett, discussion leader

S. Wallace, "Free Radical Base Damage and DNA Replication."

S. Xanthoudakis, "Redox Regulation of Fos and Jun DNA Binding Activity by DNA Repair Enzyme."

Radical Detection Techniques: H. Sies, discussion leader

D. Riley, "Stopped-Flow Kinetic Analysis of Superoxide Dismutase."

B. Kalyanaraman, "Spin Traps."

H. Utsumi, "In Vivo ESR Measurement of Free Radicals."

B. Ames, "Oxidative Stress and Cellular Consequences."

Antioxidants and Lipid Peroxidation: C. Winterbourn, discussion leader

B. Halliwell, "Overview of Free Radicals and Disease."

D. C. Liebler, "Chemistry of Vitamin E Turnover."

R. Stocker, "Antioxidant Protection of Lipoproteins."

T. Dix, "Hydroperoxyl Radical and Biological Oxidative Damage."

Peptides

Doubletree Hotel, Ventura, CA

D. F. Veber, chair; J. A. Wells, vice chair

13–18 February

New Technology/Molecular Diversity:

P. Schultz, "Probing Protein Structure and Function With an Expanded Genetic Code."

J. Ellman, "Combinatorial Synthesis and Screening of Libraries of Therapeutically Important Classes of Organic Compounds."

R. Zuckermann, "Automated Synthesis and Screening of Peptidomimetic Libraries."

S. Fields, "The Two-Hybrid System to Detect Protein-Protein and Protein-Peptide Interactions."

Protein Design:

W. DeGrado, "De Novo Protein Design."

L. Geirasch, "How Molecular Chaperones Recognize Their Substrates."

J. Kelly, "Nucleating β-Sheet Structure in Aqueous Solution."

Peptide Mimetics: R. Hirschmann, discussion leader

D. Rich, "New Enzyme Inhibitors and Peptidomimetics Derived from Natural Products."

A. Smith, "The Design and Synthesis of Non-Peptide Peptidomimetics: The Application to Somatostatin, Fibrinogen, and HIV Protease."

M. Goodman, "Twisted Amides in Peptide Structure and Reactions."

J. Marsters, "Benzodiazepines: Versatile Scaffolds for Peptidomimetics."

Proteases and Inhibitors:

J. Powers, "Transition-State and Mechanism-Based Inhibitors for Serine and Cysteine Proteases."

D. Kempf, "Peptidomimetic Inhibitors of HIV Protease: Design and Delivery."

P. Darke, "HIV-1 Protease Inhibition."

Synthetic Methods:

G. Barany, "Solid-Phase Synthesis of Complex Peptides."

D. Jackson, "Enzymatic Protein Synthesis: Application to the Synthesis of RNAse A Mutants Containing Unnatural Amino Acids."

D. Evans, "Approaches to the Synthesis of Vincomycin."

R. Sheppard, "Developments in the Solid Phase Synthesis of Difficult Sequences."

Molecular Recognition:

A. McCammon, "Computer-Aided Design of Peptides and Proteins."

T. Kuntz

P. Kim, "Coiled-Coil Peptides."

Hormones and Receptors:

B. DeVos, "Structural Insight into Receptor Activation by Human Growth Hormone."

J. Kuriyan, "Structures of SH_2-Phosphopeptide Complexes."

M. Simon, "The Design of Intracellular Information Processing Circuits."

S. Shoelson, "Determinants of Specificity in Phosphoprotein-SH_2 Domain Interactions."

Histocompatibility Recognition:

D. Wiley, "Peptide Binding to Class I and Class II Histocompatibility Glycoproteins."

G. Jung, "Natural and Synthetic Self Peptide Libraries in Competition with T-Cell Epitopes."

Pineal Cell Biology

Casa Sirena Resort, Oxnard, CA

R. J. Reiter, chair; M. D. Rollag, vice chair

23–28 January

Cellular and Molecular Biology of the Pineal: M. D. Rollag, discussion leader

M. G. Welsh, "Pineal Cell-Cell and Cell-Matrix Interactions."

J. S. Takahashi, "Pineal Signal Transduction Mechanisms."

D. C. Klein, "Nitric Oxide and Pineal Cyclic GMP Regulation."

J. Stehle, "Transcription Factor ICE-CREM: Circadian Expression in the Pineal."

Melatonin/Suprachiasmatic Nucleus Interactions: M. L. Dubocovich, discussion leader

V. M. Cassone, "Regulation of Avian Circadian and Visual Function by Melatonin."

M. U. Gillette, "Mechanisms of Melatonin Action on the Suprachiasmatic Nucleus."

Membrane Melatonin Receptors: A. Yuwiler, discussion leader

S. M. Reppert, "Molecular Biology of Melatonin Receptors."

P. J. Morgan, "Melatonin Effects on Gene Expression in the Par Tuberalis."

M. L. Dubocovich, "Molecular Pharmacology of Melatonin Receptors."

D. J. Kennaway, "Melatonin Receptors and/or Binding Sites."

Melatonin Agonists and Antagonists: P. J. Morgan, discussion leader

B. Guardiola, "Melatonin Receptor Agonists and Antagonists."

R. Hagan, "Melatonin Analogues: Pharmacology and Circadian Effects."

Intracellular Actions of Melatonin: J. Arendt, discussion leader

R. J. Reiter, "Melatonin Function in Antioxidative Defense."

B. Poeggeler, "Oxidative Chemistry of Melatonin."

D. E. Blask, "Melatonin as an Oncostatic Agent."

S. M. Hill, "Melatonin and Breast Cancer: Molecular Interactions."

Intracellular Actions of Melatonin: D. C. Klein, discussion leader

G. Benitz-King, "Melatonin/Calmodulin Interactions."

Melatonin and its Endocrine Physiology: R. J. Reiter, discussion leader

M. Zatz, "From Light to Melatonin in the Chick Pineal."

H. Underwood, "Melatonin and Temperature Regulation in Birds: Role of Pineal, Eyes and Light."

B. D. Goldman, "Effect of Prenatal Photoperiod on Postnatal Melatonin Rhythms."

C. C. Matthews, "Seasonal Breeding and Melatonin: Coincidence Hypothesis."

Melatonin and Human Reproduction: R. J. Wurtman, discussion leader

S. S. C. Yen, "Melatonin and Reproductive Physiology in Women."

Melatonin in Clinical Medicine: G. M. Vaughan, discussion leader

J. Arendt, "Melatonin and Human Circadian Rhythm Disorders."

R. J. Wurtman, "Melatonin and Human Behavior."

A. J. Lewy, "Resetting the Human Biological Clock with Melatonin."

Polymers in Biosystems

Casa Sirena Resort, Oxnard, CA

D. Tirrell, chair; G. Loomis, vice chair

20–25 February

New Materials: J. Kohn, discussion leader

S. Stupp, "Organoapatites: New Materials for Artificial Bone."

D. Grainger, "Organization of Biopolymers and Synthetic Polymers into 2-Dimensional Arrays on Surfaces."

D. Mendel, "Application of Unnatural Amino Acid Mutagenesis to Study Protein Structure and Function."

New Materials: A. Koury, discussion leader

P. Valint, "Surface-Active Macromers for Polymer Surface Modification."

J. Cappello, "Effect of Composition on Resorption of Implanted Protein Polymers."

Surfaces: V. Vogel, discussion leader

M. Tirrell, "Direct Force Measurements of Model Ligand-Receptor Interactions."

M. Foster, "X-Ray Characterization of Polymer Interfaces."

J. Gardella, "Fluoropolymeric Surface Chemistry, Protein Adsorption and Specific Neural Cell Response: Synthesis and Characterization of Lithographically Patterned Materials."

Tissue Regeneration and Repair: K. Himmelstein, discussion leader

I. Yannas, "Regeneration vs. Repair. The Role of Specific ECM Analogues."

D. Gibbons, "Materials for Ligament Repair."

Tissue Regeneration and Repair: S. Winn, discussion leader

D. Mooney, "Design and Fabrication of Cell Delivery Devices to Engineer New Tissues."

P. Kemp, "Collagenous Scaffolds in Tissue Engineering."

M. Yarmush, "The Effect of Extracellular Matrix Geometry on Liver Cell Function."

Natural Materials: R. Lewis, discussion leader

L. Jelinsky, "Unraveling the Secrets of Spider Dragline Silk."

Sensors and Actuators: J. Riffle, discussion leader

D. Charych, "Direct Colorimetric Detection of a Receptor-Ligand Interaction by a Polymerized Bilayer Assembly."

H. Ribi, "Optoelectronic Detection Systems Based on Novel Protein-Lipid-Polymer Membranes."

Y. Osada, "Electro-Driven Biomimetic Gel Actuator."

Smart Materials: G. Loomis, discussion leader

A. Hoffman, "Evolution of Intelligence in Smart Polymers."

Drug Delivery: K. McGrath, discussion leader

C. Pitt, "Biodegradable Polymers: Zero Order Drug Delivery by Manipulation of Polymer Structure."

R. Potts, "Mechanism of Drug Transport Through the Skin and Other Biological Barriers."

J. Kopecek, "Biorecognizable Hydrophilic Polymers."

Prolactin

Casa Sirena Resort, Oxnard, CA

A. Bartke, chair; A. Walker, vice chair

30 January–4 February

Regulation of Prolactin Gene Expression: A. Gutierrez-Hartmann, discussion leader

H. Elsholtz, "Phylogenetic Relationships of Pit-1."

K-I. Tatsumi, "Pit-1 Mutant in the Human."

B. Gellersen, "Uterine Expression of Prolactin Gene."

N. Emanuele, "Brain Prolactin."

Placental Lactogens: Y. Sinha, discussion leader

F. Talamantes, "Mouse Placental Lactogens."

J. Byatt, "Placental Lactogens in Ruminants."

Receptors and Mechanisms of Action: P. Kelly, discussion leader

B. de Vos, "Human Growth Hormone and its Receptors."

D. Maiter, "Receptors and Binding Proteins."

C. Carter-Su, "Role of Tyrosine Kinase."

Structure-Function Relationships of Prolactins and Growth Hormones:

D. Luck, discussion leader

J. Martial, "Alanine-Scanning Mutagenesis of Human Prolactin."

J. Kopchick, "Mutant of Lactogenic and Non-Lactogenic Growth Hormones."

Novel Actions of Prolactin and Growth Hormones: H. Bern, discussion leader

C. Nicoll, "Synlactin."

A. Walker, "Prolactin as a Growth Factor."

J. Clossett, "Effects of Prolactin and Growth Hormone on the Testis."

M. Nevalainen, "Androgen-Independent Effects of Prolactin on Prostatic Cells."

Effects of Prolactin on Brain Development and Function: S. Frawley, discussion leader

C. Phelps, "Effects of Prolactin on TIDA Neurons."

R. Weber, "Effects of Prolactin on the Central Nervous System."

Regulation of Prolactin Release: S. Smith, discussion leader

G. Grau, "Ionic Factors."

D. Sarkar, "Role of Transforming Growth Factor."

D. Blithe, "Free Alpha Sub-Unit."

N. Ben-Jonathan, "Prolactin Releasing Factor."

G. Shah, "Role of Calcitonin in the Control of Prolactin Release."

A. Bartke, discussion leader

A. McNeilly, "Prolactin and the Control of Reproduction: A Role Beyond Milk."

Effects on the Immune System; Prolactinomas: L. Yu-Lee, discussion leader

L. Matera, "Effects of Prolactin on the Immune System."

W. Murphy, "Effects of Growth Hormone on the Immune System."

R. Collu, "G Protein Mutations in Prolactinomas."

S. Melmed, "Prolactinomas: Clonal Origins and Molecular Defects."

Protons and Membrane Reactions

Doubletree Hotel, Ventura, CA

S. Scheiner, chair; T. Krulwich, vice chair

30 January–4 February

Well-Defined Systems: S. Scheiner, discussion leader

C. Perrin, "NMR of Fundamental Aspects of Proton Transfer."

M. Meot-Ner, "Proton Transfer Between Molecular Clusters in the Gas Phase."

M. Peyrard, "Proton Transfer in H-Bonded Systems: Role of the Proton-Lattice Coupling."

Structural Analysis of Proton Pumps: J. E. Walker, discussion leader

J. E. Walker, "F_1-ATPase Structure and its Communication with F_o."

R. Henderson, "Bacteriorhodopsin Structure and Structural Changes."

M. Saraste, "Structure of the Cu_a-Binding Domain in Cytochrome Oxidase."

Bacteriorhodopsin: R. Mathies, discussion leader

J. Lanyi, "Proton Conduction at Protein Surfaces."

M. Heyn, "Kinetics of Proton Release and Uptake in Bacteriorhodopsin as Measured with Surface Bound pH Indicators."

A. Maeda, "FTIR Analysis of the Photocycle of Bacteriorhodopsin."

Conduction Through Polypeptides: D. Cafiso, discussion leader

D. Deamer, "Polyamino Acids Such as PolyAla that Permit Proton Migration Across Bilayers."

R. E. Koeppe III, "Transport of Cations and/or Protons Through Sequence-Modified Gramicidin Channels."

J. Lear, "Design and Behavior of Synthetic Ion Channel Peptides."

Path of Protons in Photosynthetic Reaction Centers: C. Wraight, discussion leader

D. Tiede, "Proton and Charge Movement Following Electron Transfer in Bacterial Photosynthetic Reaction Centers."

W. Junge, "Protons in Plant Photosynthesis."

M. Okamura, "Proton Transfer in Bacterial Reaction Centers."

Proton Conduction Involving Water Molecules: M. Gutman, discussion leader

P. Jordan, "Ion Water Correlation in Narrow Channels: Model Results and Implications for Proton Mobility."

J. Aqvist, "Molecular Dynamics Simulation of Proton Transfer Reactions in Proteins and Solutions."

G. Careri, "Proton Percolation and Emergence of Biological Function in Nearly Dry Biosystems."

Oxidative Phosphorylation and Bacterial Flagellar Rotation: T. Krulwich, discussion leader

R. Macnab, "The Export of Flagellar Proteins and its Relationship to the Export of Virulence Factors."

R. Fillingame, "Subunit c of F_1F_oATPase: Correlation of NMR Structure with Function."

S. Ferguson-Miller, "Metal Center Structure and Proton Translocation in Cytochrome c Oxidase."

Proton Conduction Along Surface Regions: J. Nagle, discussion leader

R. Dilley, "Ca++ Binding to the F_o and CF_o Subunit III Proteins from Various Organisms in Relation to Effects on H+ Conductivity."

J. Teissie, "Lateral Communication by Fast Proton Conduction: A Model Membrane Study."

M. Gutman, "Time-Resolved Measurements of Proton Diffusion at the Water-Mitochondrial Membrane Interface."

Conduction of Ions Other Than Protons: P. Boyer, discussion leader

P. Dimroth, "Mechanism of $Na+(H_3O)$ Translocation Through the F_o Part of the F_1F_oATPase of *Propionigenium modestum*."

G. Leblanc, "Cationic Selectivity Properties of the Melibiose Permease of *Escherichia coli*."

R. Kaback, "The Lac Permease of *Escherichia coli*: Proton vs. Hydronium Ion Lactose Symport."

Psychoneurogenetics

Doubletree Hotel, Ventura, CA

K. Blum, chair; E. P. Noble, vice chair

20–25 March

Molecular Genetic Techniques for Psychoneurogenetics: S. Weissman, discussion leader

S. Sommers, "SSCP and Dideoxy Fingerprinting for Rapid Detection of Mutations."

P. V. Gejman, "Mutational Analysis of Candidate Genes and Related Studies."

P. Jagadeeswaran, "Isolating Unknown Coding Sequences by Generating Genomic cDNA Chimeras."

Linkage vs. Association Studies in Mental Disease: E. Lander, discussion leader

E. M. Wigsman, "Association vs. Linkage Studies for Mapping Genes."

K. Lange, "Robust Methods for Detection of Association and Linkage."

Cloning of Candidate Genes: Role in Neuropsychogenetic Diseases: H. Loh, discussion leader

B. O'Dowd, "Receptors for Opioid Peptides: Cloning and Characterization."

D. Kaufman, "Glutamate-Decarboxylase in Neurogenetic and Autoimmune Diseases."

M. Brann, "Muscarinic Acetylcholine Receptor Genes in Neuropsychiatric Disease."

Genetics of Neurological Disorders: J. Schellenberg, discussion leader

M. Hayden, "Huntington's Disease, the Repeat Goes On."

W. Strittmatter, "Apolipoprotein E_4 and Alzheimer's Disease."

Genetics of Mental Disorders: R. Sparks, discussion leader

E. Gershon, "Genetic Mapping of Bipolar Illness."

J. Kennedy, "Are Dopamine D_4 Receptor Gene Variants Involved in Neuropsychiatric Diseases?"

R. Hagerman, "Molecular, Clinical Correlations in Fragile X Syndrome."

Genetics of Alcoholism: C. R. Cloninger, discussion leader

K. Blum, "Dopamine D_2 Receptor Gene Variants in Severe Alcoholism."

A. Parsian, "Putative Candidate Molecular Markers in Alcoholism."

Genetics of Polysubstance Abuse: R. Pickens, discussion leader

E. P. Noble, "Dopamine D_2 Receptor Gene Variants as a Function of Behavioral Risk Factors in Cocaine Dependence."

G. Uhl, "Candidate Dopaminergic and Opiate Receptor Genes in Polysubstance Abusers."

D. Carmelli, "Genetic Influences on Substance Use in World War II Veteran Twins."

Genetics of Attention Deficit Disorder and Tourette's: J. Biederman, discussion leader

D. Comings, "Genetics of Attention Deficit Disorders, Tourette's Syndrome and Other Impulse Disorders."

E. Devor, "Genetic Markers and Tourette's."

Gene Therapy: R. Martuza, discussion leader

Z. Ram, "Gene Therapy for Diseases of the CNS."

B. L. Davidson, "Adeno Viral Mediated Gene Transfer."

Sensory Transduction in Microorganisms

Casa Sirena Resort, Oxnard, CA

J. A. Spudich, chair; J. S. Parkinson, vice chair

16–21 January

Receptors and Transducers: D. Koshland Jr., discussion leader

D. Koshland Jr., "Information Processing by the Aspartate Receptor of Chemotaxis."

J. Parkinson, "Generation and Control of Chemoreceptor Signals in *E. coli*."

J. Hazelbauer, "Transmembrane Domains of Chemoreceptors."

Receptors and Transducers: P. Devreotes, discussion leader

P. Devreotes, "Binding, Signaling, and Desensitization of the cAMP Receptor in Dictyostelium."

K. Bloomer, "α-Factor Signaling and Desensitization in Yeast."

P. Sigler, "Structure of Activated Transducin: Functional Implications."

Receptor-Transducer Interactions: J. Spudich, discussion leader

J. Spudich, "Proton Transfer Reactions and Sensory Rhodopsin I Signaling."

L. Marsh, "Signal Transduction from the α-Factor Receptor of Yeast."

K. P. Hofmann, "Rhodopsin/Transducin Interaction."

Receptor-Transducer Interactions: P. van Haastert, discussion leader

P. van Haastert, "The Inositol Signaling Pathway in Dictyostelium."

R. Firtel, "Signaling Pathways Controlled Through G-Proteins in Dictyostelium."

Transducer-Cytoplasm Signaling: P. Matsumura, discussion leader

R. Dahlquist, "Structural Changes in Che Y as a Result of Phosphorylation and of Che A Binding."

A. Stock, "Structural Analysis of Phosphorylation-Activated Response Regulator Domains."

R. Stewart, "Kinetic Investigations of Chemotaxis Phospho-Transfer Reaction."

Transducer-Cytoplasm Signaling: B. Errede, discussion leader

B. Errede, "An Intracellular Phosphorylation Cascade Coordinates the Yeast Mating Response."

D. Levin, "Dissecting the Protein Kinase C/MAP-Kinase Pathway of *S. cerevisiae*."

G. Sprague, "Genetic Evidence for Protein-Protein Interactions in the Yeast Pheromone Response Pathway."

Regulation of Motor Function: B. Macnab, discussion leader

B. Macnab, "Molecular Analysis of the Bacterial Flagellar Switch."

D. DeRosier, "Structure of the Bacterial Flagellar Rotary Motor and Gear Box."

M. Titus, "The Myosin Family: Regulation by Phosphorylation and Variation in Trail Structure."

Circuitry: M. Simon, discussion leader

M. Simon, "The Macromolecular Complex that Mediates the Chemotaxis Circuit."

L. Shapiro, "Bacterial Behavior: The Integration of Timing and Spatial Organization."

S. Long, "Genes and Signals in the Rhizobium-Legume Symbiosis."

Mechanism of Motor Action: S. Block, discussion leader

H. Berg, "Torque Generated by the Bacterial Rotary Motor."

S. Block, "Tracking Down Kinesin Stepping Using Optical Trapping Interferometry."

B. Simmons, "Single Interactions in an Actomyosin Motility Assay."

Superconductivity

Casa Sirena Resort, Oxnard, CA

J. D. Jorgensen, chair; R. L. Greene and Ø. Fischer, vice chairs

2–7 January

New Materials and Structure Property Relationships: H. Yamauchi, discussion leader

M. Marezio, "New Superconducting Hg-Based Cu Mixed Oxides."

P. Chu, "Superconducting and Other Properties of $HgBa_2Ca_{n-1}Cu_nO_{2n+2+\delta}$ at Ambient and High Pressures."

K. Kitazawa, "Properties of the Overdoped State—The $La_{2-x}Sr_xCuO_4$ System."

New Materials and Structure Property Relationships: J. Markert, discussion leader

S. Adachi, "New Homologous Series of the 'O2(n − 1)n' Superconductors."

M. Takano, "Solid State Chemistry of Alkaline-Earth-Cu-O Systems at High Pressure: Real and Potential Superconductors."

Progress in Bulk Applications: R. Poeppel, discussion leader

L. Masur, "Materials Science Issues in the Development of High Temperature Superconductor Wires."

K. Sato, "Large Current Conductor and Magnet Application Using Silver-Sheathed Bismuth-Based Superconducting Wire."

D. Larbalestier, "Microstructure Complexity of BSCCO-2223 and its Influence on the Superconducting Properties."

M. Suenaga, "Critical Currents and Dissipation Mechanisms in High Tc Composite Conductors."

Structure/Property Relationships—High Pressure Effects: B. Maple, discussion leader

J. Schilling, "Pressure Effects in High-Tc Oxide and Fullerene Superconductors."

U. Welp, "Uniaxial Pressure Studies on High-T_c Superconductors."

Progress in Thin Film Applications: J. Talvacchio, discussion leader

D. Face, "Superconducting Electronic Devices and Materials."

R. Hammond, "Progress Toward Commercialization of HTS Electronics."

R. Harris, "Fundamental and Practical Barriers to Commercialization of Superconducting Electronics."

R. Buhrman, "Transport and Noise Properties of High-T_c Thin Films, Grain Boundaries and Interfaces: Effects of Defect Aggregation and Atomic Instabilities."

T. Geballe, discussion leader

S. Tanaka, "A Way to Commercialization."

I. Schuller, "Enhancement of Superconductivity by Photoexcitation."

The Pairing Mechanism—Experiment: M. Salamon, discussion leader

D. Bonn, "Microwave Surface Impedance and the Pairing State in $YBa_2Cu_3O_{6.95}$"

N. Klein, "Microwave Surface Impedance of YBCO—Evidence for Two-Gap S-Wave Superconductivity."

J. Loram, "Specific Heat Evidence on the Nature of Cuprate Superconductors."

G. Aeppli, "Magnetic Fluctuations in Superconducting Cuprates."

The Pairing Mechanism—Experiment:

D. Van Harlingen, "Phase Coherence in YBCO-Pb dc SQUIDS: Experimental Determination of the Symmetry of the Superconducting Pairing State in YBCO."

T. Imai, "^{63}Cu NQR/NMR Study of Spin Fluctuation in High-T_c Cuprates."

The Pairing Mechanism—Theory: A. Abrilosov, discussion leader

S. Liu, "Energy Gap Structure and Tunneling Characteristics of Layered Superconductors."

D. Pines, "Spin Fluctuation Super-

conductivity: Theory and Experiment."

Thrombolysis

Doubletree Hotel, Ventura, CA

D. Ginsburg, chair; D. E. Vaughan and E. K. O. Kruithof, vice chairs

13–18 March

Structure and Function of Fibrinolytic Proteins: H. Pannekoek, discussion leader

H. Pannekoek, "Overview of PAI-1 Structure and Function."

R. W. Carrell, "SERPIN Structure and Mechanisms of Action."

E. L. Madison, "Zymogen-Like Variants of t-PA."

D. A. Lawrence, "The Interaction of PAI-1 with Vitronectin."

Regulation of Gene Expression in the Fibrinolytic System: D. J. Loskutoff, discussion leader

D. J. Loskutoff, "PAI-1 Gene Expression in Vivo."

F. Blasi, "Regulation of uPA and uPAR Gene Expression."

J. P. Quigley, "Regulation of uPA Activation."

Clinical Update on Thrombolytic Therapy: D. Collen, discussion leader

D. Collen, "Initial Clinical Experience with Recombinant Staphylokinase."

P. M. Ridker, "Perspectives on Thrombolytic and Antithrombotic Therapy: The ISIS Experience."

D. C. Stump, "The Impact of Fibrin-Specific Thrombolytic Therapy: The GUSTO Trial, What Does it Tell Us?"

V. J. Marder, "The Future of Thrombolytic Therapy."

Disorders of Plasminogen Activation in Human Disease: D. E. Vaughan, discussion leader

F. R. Green, "Genetic Factors in Thrombosis and Fibrinolysis."

W. P. Fay, "Molecular Genetics of PAI-1 Deficiency."

Transgenic Models for the Study of Thrombolysis: S. Strickland, discussion leader

P. Carmeliet, "Gene Inactivation of uPA, tPA, and PAI-1 by Homologous Recombination."

J. L. Degen, "Fibrinogen Deficient Transgenic Mice."

J. Herz, "Role of the LDL Receptor Gene Family in the Metabolism of Lipids and Proteases."

Plasminogen Activation in Embryogenesis and Tissue Remodeling: J. Loscalzo, discussion leader

A. P. Sappino, "Plasminogen Activation in Mammalian Murine Embryogenesis."

T. Ny, "Hormonal Regulation of Ovulation in Normal Animals and Animals Lacking tPA, uPA, and PAI-1."

D. I. Simon, "Plasmin Independent Fibrinolytic Mechanisms."

Cell Surface Receptors in Plasminogen Activation: E. K. O. Kruithof, discussion leader

E. F. Plow, "Cell Surface Receptors for Plasminogen."

K. A. Hajjar, "Characterization of the Endothelial Cell t-PA Receptor: Annexin II."

D. K. Strickland, "Regulation of Proteinase Activity by LRP."

New Approaches to Thrombolysis: J. I. Weitz, discussion leader

J. M. Maraganore, "Application of Antithrombins as Adjuncts to Thrombolytic Therapy."

L. L. Leung, "Single Stranded DNA Aptomers as Novel Thrombin Inhibitors."

E. G. Nabel, "Direct Gene Transfer into the Vasculature."

Extrachromosomal Elements: Mitochondria and Chloroplasts

Volterra, Italy

Wilhelm Gruissem, chair; K. Newton, vice chair

1–6 May

Session Topics:

Organellar Genome Structure and Evolution

Replication and Expression

RNA Editing

Intron Splicing, RNA Modification and Transport

Regulation of mRNA stability

Organelle Mutations and Cytoplasmic Male Sterility

Mitochondrial Myopathies

Import and Assembly of Organellar Proteins

Nuclear Control of Organelle Functions

Detailed program to appear in the February issue of *Science*.

Fractals

San Miniato, Italy

B. Sapoval, chair; M. F. Schlesinger, vice chair

1–6 May

Detailed program to appear in the February issue of *Science*.

Phase Transitions in Non-Metallic Solids

Volterra, Italy

K. Schwarz and G. Van Tendeloo, co-chairs

8–13 May

Session Topics:

Phase Transitions in the Solid State

Thermodynamics of Phase Transitions

Quantum Mechanical Calculations

Symmetry Consideration in Phase Transitions

Experimental Possibilities to Study Phase Transitions

New Material Classes with Phase Transitions

Photon and Phonon Induced Phase Transitions

Temperature-Induced Phase Transitions

High Pressure Phase Transitions

Effects of Partial Pressure on Phase Transitions

Detailed program to appear in the February issue of *Science*.

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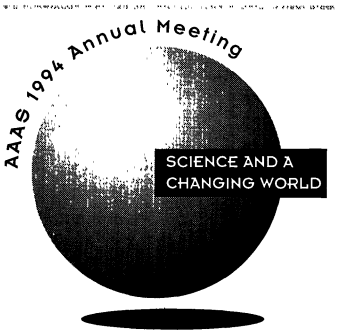

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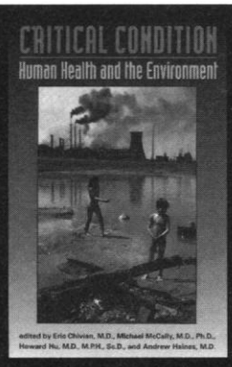

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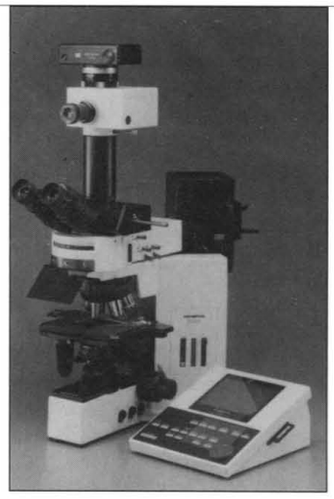

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Women and minority candidates are encouraged to apply. The University of Kentucky is an Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION IN IMMUNOLOGY

The Division of Basic Medical Sciences of Mercer University School of Medicine requests applications for a tenure-track, **ASSISTANT PROFESSORSHIP** in immunology. The successful applicant will contribute to microbiology/immunology in an interdisciplinary, problem-based medical education program in which small-group tutorials replace lectures. It is expected that the appointee will establish an externally funded research program in her or his area of expertise. Applicants should have a doctoral degree (Ph.D., Sc.D., or M.D.) in microbiology/immunology or a related field and postdoctoral training in contemporary immunology. Applicants should send curriculum vitae, names of three references, and a statement of both teaching and research interests. Applications will be accepted until the position is filled. Apply to: **Dr. Robert J. Moon, Chairman, Division of Basic Medical Sciences, Mercer University School of Medicine, Macon, GA 31207.** *Equal Opportunity/Affirmative Action Employer.*

PhD Scientists
Molecular Biology

Pfizer, a Fortune 100 company, one of the largest pharmaceutical companies in the world and a multi-billion dollar industry leader, can offer you a world of challenge, opportunity and achievement where you can make a significant contribution to the research and development of exciting new products to be introduced in the coming decade...and the new century. Pfizer's Central Research Laboratories in Groton, Connecticut are the company's primary U.S. research facilities committed to creating a healthier world population. To accomplish that goal, we are actively recruiting the following positions in laboratory research towards the discovery of new human medicinal therapeutics.

As part of Pfizer's continuing expansion of our Molecular Genetics and Protein Chemistry Department, there are openings for research molecular biologists in a number of areas. These positions require a PhD and two or more years of postdoctoral experience, and a strong publication record. Expertise in a listed disease area is desirable but not required. We are looking for scientists with a strong background in molecular biology and a desire to apply that knowledge toward solving problems of human disease.

Cardiovascular
Our cardiovascular group is pursuing the role of growth factors and proto-oncogenes in cardiac hypertrophy and congestive heart failure. We are seeking candidates who could contribute to these areas or other relevant aspects of cardiac development or dysfunction.

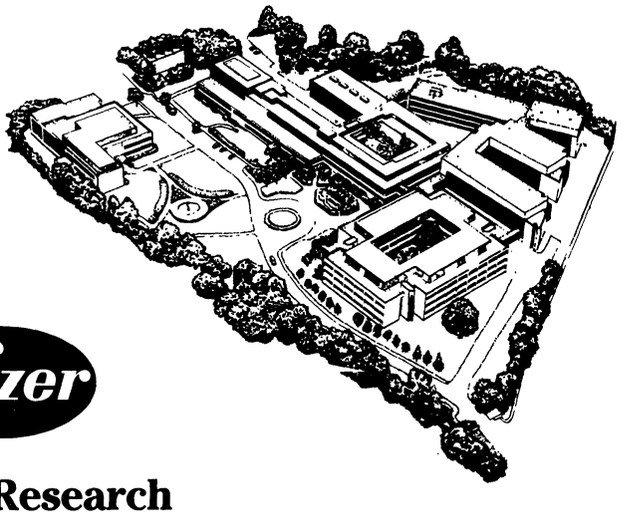
Gene Expression
Candidates should have a broad background in molecular techniques such as cDNA synthesis, library construction and screening, PCR, protein expression, protein purification, and cell culture.

Neurobiology
We are seeking candidates with experience in molecular biology of neuroreceptors and ion channels. Candidates should have experience in gene isolation and expression techniques, cDNA cloning, quantitative RNA analysis, PCR, and expression analysis in mammalian cells.

Osteoporosis
We are seeking candidates with experience in bone biology or steroid hormone action. Experience with other hormonal effectors of bone would also be useful.

Peptide Chemist
Responsibilities include synthesis and characterization of peptides and peptide analogs using manual and automated solid phase BOC and FMOC chemistries. The successful candidate will have a PhD in Chemistry or related field, and 2-3 years of postdoctoral experience. Experience in the use of peptide libraries, protein chemistry and protein-peptide interactions is preferred.

In addition to a stimulating research environment, we offer a competitive compensation and benefits package, including generous relocation assistance to this southeastern Connecticut shoreline community. Qualified applicants may send a resume, description of research experience and the names of three references, indicating position desired, to: **Mr. Kym Goddu, Personnel Associate, Employee Resources, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340.** We are an equal opportunity employer.



Pfizer

Central Research
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INTRODUCTORY BIOLOGY/ SCIENCE EDUCATION
Ball State University
Muncie, Indiana

Applications are invited for a tenure-track introductory biology/science education position at the **ASSISTANT PROFESSOR** level in the Department of Biology, available fall 1994. Candidates are expected to have a commitment to excellence in teaching, to be competent in current approaches used in biology and science education instruction, and to establish an active research program. Responsibilities: teach courses in introductory biology and science methods; conduct research in specialty area and promote student involvement in research; and be an active member of the academic community. Minimum qualifications: earned doctorate by August 19, 1994, in a biological science or science education with a strong background in the biological sciences; elementary or secondary school science certification; and effective written and oral communication skills. Preferred qualifications: demonstrated teaching ability and publications and/or evidence of other scholarly activity. Submit curriculum vitae, documentation of scholarly activity, transcripts, and three (3) letters of reference to: **Chair, Science Education Search Committee, Department of Biology, Ball State University, Muncie, IN 47306.** Review of applicants will begin December 1, 1993, and continue until the position is filled.

Ball State University is an Equal Opportunity/Affirmative Action Employer and is strongly and actively committed to diversity within its community.

ASSISTANT PROFESSOR—POMOLOGY, PENN STATE: A 12-month, tenure-track, 15% teaching, 85% research position is available. The individual will be expected to develop and maintain a research program focused on biological/chemical/physical phenomena that influence elements of integrated crop management. While the focus is to be on tree fruit crops, the research is expected to provide knowledge/technology that might also aid the production and use of other woody plants in areas such as dormancy/hardiness, growth control, root biology, or plant nutrition. Teaching duties will include undergraduate advising, a fruit crop science course and a graduate course in an area related to the individual's research expertise. A Ph.D. in Horticulture or a closely related plant science, with a strong background in chemistry, physics and/or fundamental biology is required. The salary and rank are commensurate with background and experience. Applicants should submit a letter of application, résumé, academic transcripts and the names and addresses of three professional references to: **Dr. Stephen Wallner, Professor and Head, Department of Horticulture, Box HorS1, THE PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK, PA 16802,** no later than **DECEMBER 1, 1993.** *An Affirmative Action/ Equal Opportunity Employer. Women and minorities encouraged no apply.*

DEPARTMENT OF BIOLOGY
UNIVERSITY OF ROCHESTER
ASSISTANT PROFESSOR in MOLECULAR BIOLOGY

The Department of Biology at the University of Rochester invites applications for a tenure-track position in **Molecular Biology** available September 1994. Applicants should have at least two years of postdoctoral training. We are seeking a person who can mount a strong independent research program in an area of molecular biology. The University of Rochester is a private institution with about 4000 undergraduate and about 2000 graduate students. The Department of Biology has a faculty of 21 with research and teaching programs in molecular, cell, and developmental biology as well as molecular evolution and ecology. We have an excellent environment with extensive interactions both within the department and with the Medical School located adjacent to the College of Arts and Science. Screening of applications will begin immediately and continue until the position is filled. Candidates should submit written applications, including curriculum vitae, a brief statement of research and teaching interests, and arrange for three letters of recommendation to be sent to: **Dr. Lasse Lindahl, Chair, Recruiting Committee, Department of Biology, University of Rochester, Rochester, NY 14627.**

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

PHYSIOLOGIST—Applications are invited for a tenure-track position in physiology at the **ASSISTANT PROFESSOR** level. Area of research is open, but preference will be given to applicants whose expertise supports ongoing ecological research in the department. Applicants must have a Ph.D. and a demonstrated record of research excellence. The successful candidate will be expected to develop an active research program involving graduate students (M.A. and Ph.D.), and to excel in teaching. Applicants should submit curriculum vitae, concise statements of teaching and research interests, up to three representative publications, and have three letters of reference sent to: **Dr. Steven L. Lima, Chair, Search Committee, Department of Life Sciences, Indiana State University, Terre Haute, IN 47809.** Screening begins November 8, 1993, continuing until the position is filled. *Applications from women and members of minorities are strongly encouraged. Affirmative Action/ Equal Opportunity Employer.*

RESEARCH ASSISTANT PROFESSORSHIPS

The Department of Biochemistry and Molecular Biology at the Medical University of South Carolina invites applications to fill two research assistant professor positions. (1) Research assistant professor in molecular biology for membrane receptor–related research. Postdoctoral experience required. Send curriculum vitae and names of references to **Professor Christian Schwabe.** (2) Research assistant professor in molecular genetics. Experience in gene cloning, sequencing and expression is required. Research areas include mapping and cloning of genes involved in hypertension and cardiovascular diseases. Contact **Professor Lee Chao, Department of Biochemistry and Molecular Biology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.**

The Medical University of South Carolina is an Equal Opportunity/Affirmative Action Employer.

PROGRAM IN HUMAN GENETICS

MEHARRY MEDICAL COLLEGE invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. Applicants must hold a Ph.D. and/or M.D. degree and have the ability to develop a strong and independent research program in mammalian molecular genetics. Emphasis on human genetic diseases is highly desirable. We offer excellent laboratory facilities, competitive salaries, and attractive start-up packages. Candidates will be expected to participate in the teaching of medical and graduate students. Applicants should send curriculum vitae, description of research plans, and have three letters of references sent to: **Dr. Manuel S. Valenzuela, Chair, Human Genetics Search Committee, Division of Biomedical Sciences, Meharry Medical College, 1005 D. B. Todd Boulevard, Nashville, TN 37208.** *Meharry Medical College is an Equal Opportunity/ Affirmative Action Employer and specifically invites and encourages applications from qualified women and minorities.*

FACULTY POSITION IN GENETICS. DUKE UNIVERSITY MEDICAL CENTER. Applications are invited for a tenure-track position in the Section of Genetics at Duke University Medical Center. Although we anticipate filling this position at the **ASSISTANT PROFESSOR** level, we will consider individuals for any level appointment. We are particularly interested in those individuals who are engaged in work utilizing mammalian systems or focusing on the genetics of human disease. The facilities and environment of the Section, which will become the Department of Genetics within this year, are excellent. Applications should include curriculum vitae, a brief description of research accomplishments, a brief description of plans for future research, and the names of three individuals who can serve as referees. Address applications to: **Genetics Search Committee, Section of Genetics, Duke University Medical Center, Box 3054, Durham, NC 27710.** *Duke University Is An Equal Opportunity/Affirmative Action Employer.*

MOLECULAR IMMUNOLOGIST: An opportunity at the rank of **ASSISTANT PROFESSOR** is available in the Division of Geriatrics and Gerontology. Applicants should be completing fellowship training in the molecular aspects of the T cell and/or B cell function. Please send curriculum vitae, bibliography and names of three references to: **Marc E. Weksler, M.D., Cornell University Medical College, 1300 York Avenue, Room A 459, New York, NY 10021.**

CELL BIOLOGIST—HHMI-funded **ASSISTANT PROFESSORSHIP**, tenure-track, available fall 1994 for cell biologist to teach Cell Biology, Biochemistry and participate in Introductory Biology. Ph.D. required. Broad biological background desirable.

Applicants must demonstrate excellent undergraduate teaching record and research program involving undergraduates in all aspects, including publication. Experience in small college setting desirable.

Ursinus is northwest of Philadelphia in suburban setting and is highly selective, residential, co-ed, liberal arts college of 1100 students with long tradition of strength in sciences.

Send letter of application and curriculum vitae to: **Dr. Ellen M. Dawley, Department of Biology, Ursinus College, Box 1000, Collegeville, PA 19426–1000,** by January 1, 1994. *Ursinus is Equal Opportunity Employer/ Affirmative Action.*

PLANT CELL OR PLANT DEVELOPMENTAL BIOLOGIST. The Department of Biology, University of North Carolina at Chapel Hill, invites applications for a tenure-track position. We seek an outstanding scientist studying problems in plant cell and/or plant developmental biology. Applications from investigators using modern genetic, molecular, and/or cellular approaches to study developmental processes are especially welcome. This appointment at the level of **ASSISTANT PROFESSOR** will be available July 1, 1994. Applicants should send curriculum vitae, a concise statement of research and teaching interests, selected publications, and four letters of recommendation to: **John R. Pringle, Chairman, Plant Cell/Developmental Biology Search, Department of Biology, CB#3280, University of North Carolina, Chapel Hill, NC 27599–3280.** Priority will be given to applications received by November 10, 1993. *The University of North Carolina is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from women and minorities.*

DEVELOPMENTAL BIOLOGIST
Vanderbilt University Medical Center

A tenure-track position is available in the Department of Cell Biology for a developmental biologist at the **ASSISTANT PROFESSOR** level. Preference will be given to someone working with an interesting system amenable to genetic and molecular analysis, rather than with a particular organism. The Department already has strong research programs in mouse, *Xenopus* and *C. elegans* development, and runs an interdisciplinary graduate course in Developmental Biology. Excellent animal facilities, core laboratories and generous start-up funds are available. The Department provides a supportive working environment, with expertise in growth factors, cell cycle control, signaling pathways and transcription factors. Applicants should forward curriculum vitae, summary of past research, and statement of future plans to: **Dr. H.L. Moses, Chairman, Department of Cell Biology, Vanderbilt University Medical Center, C-2306 MCN, Nashville, TN 37232–2175.**

Vanderbilt University is an Equal Opportunity/ Affirmative Action Employer.

The Section of Gastroenterology is seeking a Ph.D. for a tenure-track position at **ASSISTANT/ASSOCIATE PROFESSOR** level with expertise in epithelial electrophysiology; patch clamping a plus. Interested candidates apply to: **R.C. Orlando, M.D., Chief, Gastroenterology, Tulane University Medical Center–SL 35, 1430 Tulane Avenue, New Orleans, LA 70112.** *Equal Employment Opportunity.*

ENVIRONMENTAL PLANT PHYSIOLOGIST

The Department of Botany, University of Georgia, invites applications and nominations for a tenure-track **ASSISTANT PROFESSOR** position to be filled September 1994. Appointee will be a physiologist who addresses ecological questions. Preference will be given to persons knowledgeable in field and laboratory ecology and who have expertise in biochemical, biophysical and/or molecular techniques. The appointee is expected to interact with faculty in related disciplines and teach courses in plant physiological ecology and plant physiology. Send statements of research and teaching goals, curriculum vitae, up to five reprints, and four letters of reference to: **Dr. M. Darley, Box 3520, Botany Department, University of Georgia, Athens, GA 30602–7271** by 1 December 1993.

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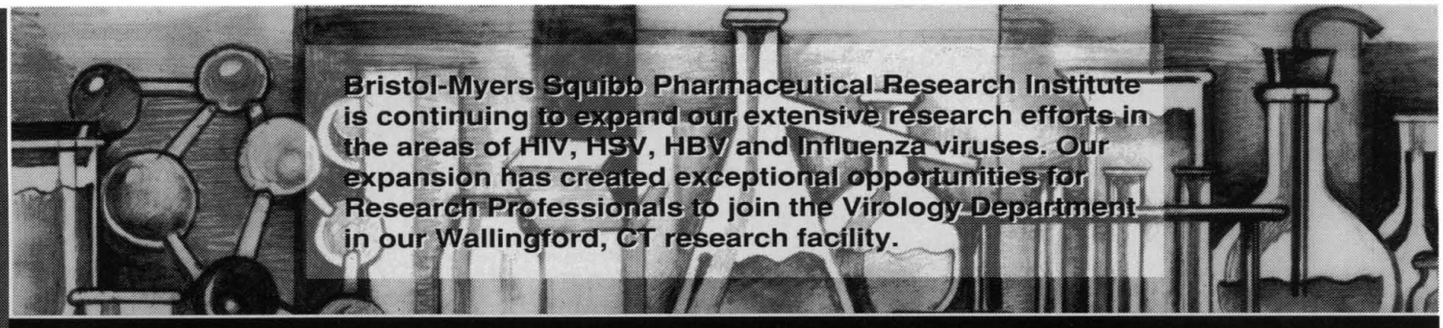

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GROUP LEADER

Direct/coordinate the day-to-day efforts of Research Scientists in the area of Herpes or Hepatitis B viruses. This will include basic research studies to identify and evaluate targets for therapeutic intervention of human viruses and the design of high throughput screens for discovery of anti-viral agents. Requirements include a Ph.D. in Molecular Biology, Virology or Biochemistry and 8-10 years of post-doctoral experience.
Please reply to: PRI-JW-407A.

RESEARCH INVESTIGATORS

Candidates should have a Ph.D. in Molecular Biology, Biochemistry or Virology and previous postdoctoral experience. Successful candidates are expected to conduct independent research studies to define unique viral targets for antiviral intervention, and collaborate with other research groups in the design and development of novel antiviral agents.
Please reply to: PRI-JW-408A.

ASSOCIATE RESEARCH SCIENTISTS

Candidates should have BS/MS degree and previous experience working in a research laboratory. Prior training in the area of Molecular Biology, Biochemistry or Virology is highly desirable.
Please reply to: PRI-JW-405A.

HIV VIROLOGISTS

Requirements include a Ph.D./MS in Biology or related field and a minimum of 1 year of cell culture experience with HIV. Candidates should be able to work in the Biosafety Containment Laboratory. Experience in the isolation, preparation and characterization of HIV from cell culture and clinical samples, and hands-on familiarity with anti-HIV research are necessary.
Please reply to: PRI-JW-402A.

HBV VIROLOGISTS

Requirements include a Ph.D./MS in Biology or related field, plus a minimum of 1 year research experience working with Hepatitis B virus. Candidates should have experience handling virus-infected cells coupled with Molecular Biology or Biochemistry expertise.
Please reply to: PRI-JW-403A.

Bristol-Myers Squibb provides competitive salaries, participation in our comprehensive benefits program and continued opportunities for professional development.

Please forward your curriculum vitae (indicating dept. number) to: Human Resource Department **Bristol-Myers Squibb Pharmaceutical Research Institute,** P.O. Box 4000, Princeton, NJ 08543-4000.

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University of California, San Francisco
Department of Biochemistry and Biophysics

Faculty Positions

The Department of Biochemistry and Biophysics seeks candidates for two tenure track positions at the Assistant Professor level. Exceptional candidates at a higher level will be considered for one of these positions. Individuals working in virtually any area of modern biology will be considered, including cell biology, development, biological structure, genetics, and biochemistry. The first appointment is envisioned to commence in the summer of 1994, and the second in the spring of 1995.

Candidates are expected to hold a Ph.D. and/or M.D. degree, or equivalent, and to have demonstrated achievement in their fields. The two successful candidates will have outstanding potential for research and teaching, and will be expected to establish a dynamic research program. The incumbents will also be expected to participate actively in teaching in both graduate and professional school curricula. It is anticipated that the new faculty will join the Program in Biological Sciences, which serves as a framework for graduate training and collegial interaction.

Applicants should submit a curriculum vitae, summary of research accomplishments, description of future research plans and interests, and copies of major publications, to: Chair, Faculty Search Committee, Department of Biochemistry and Biophysics, University of California, San Francisco, CA 94143-0448. The applicant should also arrange to have three to five letters of recommendation forwarded to the chair of the search committee.

Applications received after January 1, 1994 may not be considered for the first of these two positions. Our Department is eager to diversify its faculty and thus we especially encourage women and minorities to apply. UCSF is an Equal Opportunity/Affirmative Action Employer.

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At Lederle-Praxis Biologicals, a division of American Cyanamid Company, we're pioneering the design, manufacture and marketing of vaccines so sophisticated, they're changing lives—right now.

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RESEARCH SCIENTIST
Virology

You'll work as part of a team engaged in viral vaccine research and development. To qualify, you should have a Ph.D. or equivalent in Microbiology or a related field with a minimum of 2-5 years of experience in baculovirus or mammalian virus growth in insect or mammalian cell culture. Broad experience with the molecular and immunologic techniques for evaluation of virus protein expression and particle formation is strongly preferred. Previous work in monolayer, spinner, or microcarrier (Celligen) culture of mammalian or insect cells would be a plus.

At Lederle-Praxis, you'll enjoy a professional atmosphere and the kind of salary and benefits package you'd expect from an industry leader. Please send your resume to: **Human Resources Department, Lederle-Praxis Biologicals, 211 Bailey Rd., West Henrietta, NY 14586-9728.** An Equal Opportunity Employer.

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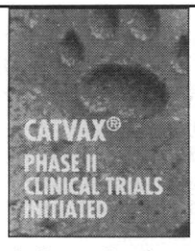

At ImmuLogic, *we're taking a novel approach to the treatment of allergies and autoimmune diseases based on proprietary discoveries, an advanced molecular understanding, and innovative thinking. By targeting the initiating events in the immune system known as the Recognition Triad, we're developing products that will control, rather than mediate the reaction. Our ALLERVAX® products will cause T cells to become non-responsive, and convert an allergic or disease reaction to a normal one. Our initial results are a promise of what's to come: already, our lead therapeutic, CATVAX, for allergy to cats, is in Phase II Clinical Trials, with the potential to realize our vision of a new paradigm for treating immune disorders.*

Translating Innovative Ideas Into Powerful Results

SCIENTISTS -

Discovery Research

We have **two immunology positions** available in this group. In the **first position,** you will be involved in the initiation of new interactive programs to develop novel therapeutics in immunologically relevant diseases and will develop and implement experimentation on immunomodulators and peptide-based vaccines. Qualifications: Ph.D. with a minimum of 2-5 years' relevant experience in immunology. Cellular immunology with expertise of activation mechanisms and *in vivo* models of transplantation and antibody responses required. Knowledge of signaling pathways at a biochemical and molecular level a plus. **Dept. SD1.**

In the **second position,** you will be involved in the initiation of new program areas and will design and implement experiments to study the mechanism of immunomodulation of novel compounds. Qualifications: Ph.D. with a minimum of 2-5 years' postdoctoral experience in immunology. Expertise in cellular and biochemical mechanisms of receptor signaling a plus. Broad knowledge of tolerance and immunomodulation required. **Dept. SD2.**

Our steady progress has established us as a dynamic and rapidly expanding biopharmaceutical leader; our key industry partnerships and first-rate team of scientific professionals are taking us even further. We offer exceptional opportunities for growth, support for your career development, and rewards that include a competitive compensation and benefits package. Please send your CV, referencing the department, to: ***Human Resources Department, ImmuLogic Pharmaceutical Corporation, 610 Lincoln Street, Waltham, MA 02154.*** *An equal opportunity employer. Principals only.*

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SENIOR RESEARCH SCIENTIST

The IMMUNE RESPONSE CORPORATION, a rapidly growing biotechnology company based in Carlsbad, California is currently seeking a Ph.D. level scientist to work on T-cell immunoregulation in autoimmune disease. The company's T-cell receptor peptide-based treatment of Rheumatoid Arthritis is currently in clinical trials. The position available will involve both the basic and clinical research associated with the development of therapeutic products for autoimmune disease.

THE IMMUNE RESPONSE CORPORATION offers a competitive compensation and benefits package and the opportunity to make a significant contribution in a stimulating, state-of-the-art, work environment. Interested candidates should mail or fax their C.V. to:

Human Resources
THE IMMUNE RESPONSE CORPORATION
5935 Darwin Court
Carlsbad, Ca. 92008
(619) 431-8636

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HEALTH SCIENTIST ADMINISTRATOR (BIOMEDICAL) GS-601-15

The National Institute on Aging, National Institutes of Health, Public Health Service, is recruiting for a health scientist administrator, ($66,609 to $86,589) to join the Neuroscience and Neuropsychology of Aging Program, an extramural research program. The incumbent will serve as the Chief of the Dementias of Aging Program, and will be responsible for the development and administration of a research grants program in the area of Alzheimer's disease and related disorders of aging. The programs responsibilities include: etiology, diagnosis, treatment, behavioral management, and epidemiology of Alzheimer's disease. A doctoral degree or equivalent and research experience related to neuroscience are required. Preference will be given to individuals with research experience in neurobiology of aging, neurodegenerative diseases of aging, or cognitive neuroscience. A familiarity with neurological disorders of aging, and psychosocial problems of older people is desirable. Position is located in Bethesda, Maryland. U.S. citizenship is required. Deadline for applications is December 31, 1993.

Send an Application for Federal Employment (SF-171) and C.V. to:

Ms. Christine Hartz
NIA Personnel Office
Building 31, Room 2C02
9000 Rockville Pike
Bethesda, MD 20892
Telephone Number: 301-496-5347

NATIONAL INSTITUTES OF HEALTH

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ASST./ASSOC. PROFESSOR PHARMACEUTICAL SCIENCES

ST. JOHN'S UNIVERSITY NEW YORK

The Department of Pharmaceutical Sciences, College of Pharmacy & Allied Health Professions, St. John's University, seeks to fill a tenure track position at the assistant or associate professor level. Applicants must possess a Ph. D. degree. Responsibilities include undergraduate and graduate courses, as well as an active research program. Preference will be given to candidates with a background in Pharmacology / Toxicology or Biochemistry. The Department possesses excellent facilities and all the necessary support services for research. Modern instrumentation, an AAALAC accredited animal facility and tissue culture laboratories are available. The college provides a supportive environment for scientists beginning their career in basic research. Application letters with curriculum vitae, statement of research interests and names of three references should be sent to:

Dr. S. William Zito, Professor and Chair
Department of Pharmaceutical Sciences
College of Pharmacy & Allied Health Professions
St. John's University
8000 Utopia Parkway
Jamaica, NY 11439

St. John's University is an equal opportunity employer - M/F.

ST. JOHN'S UNIVERSITY
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Biology

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SmithKline Beecham Animal Health is the largest animal healthcare company in the United States and the second largest globally. With research facilities in the U.S., the U.K., and Belgium, SB Animal Health invites you to join the newest department within our Biological R&D Group—**Molecular Biology R&D**. You will see why SB Animal Health is fast becoming the premier animal health company in the world.

ASSISTANT PROJECT MANAGER

Molecular Biology—Oversee projects involving prokaryote gene expression systems. Develop & evaluate new research opportunities and technologies; isolate genes encoding protective antigens; and produce, evaluate and optimize expression of heterologous genes. An M.S. in Molecular Biology with 6 years of experience or a Ph.D. with 3 years of experience are required, including expression & optimization of heterologous genes in prokaryote systems. Experience with animal cells, insect cells and/or yeast expression systems preferred.

ASSISTANT PROJECT MANAGER

Immortalization—Oversee projects involving immortalization of mammalian and non-mammalian cell lines, developing and evaluating new research opportunities and technologies for immortalization, cell culturing and antigen expression in immortalized cells. An M.S. in Molecular or Cell Biology with 6 years of experience or a Ph.D. and 3 years of experience are required, including cell immortalization and cell culturing for commercial use.

SENIOR SCIENTIST

Viral Vectors—Design and conduct experiments for the development of viral vectors, generate recombinant reagents and viruses, isolate genes encoding protective antigens, produce antigens in pox/herpes vector systems and engineer novel recombination vectors. A B.S. in Molecular Virology or Microbiology with 6 years of experience or an M.S. with 4 years of experience are required, including DNA isolation, plaque purification, cell infection/transfection and pox virus vector construction.

RESEARCH SCIENTIST

Molecular Biology—Design & conduct experiments to develop a variety of immortalized cell lines, pinpoint and introduce new cell characterization and immortalization techniques. A B.S. in Microbiology with 4 years of experience or an M.S. and 2 years of experience are required, including tissue culture, transfection techniques and characterization of transfected cells.

RESEARCH SCIENTIST

Molecular Biology—Perform experiments to develop viral vectors expressing heterologous genes. Clone genes and components of relevant antigens and other molecules, e.g. cytokines and host expressions. A B.S. in Microbiology with 4 years of experience or an M.S. and 2 years of experience are required, including ELISA & virus neutralization assays, virus culturing, plaque purification and cell culture. Experience with pox viruses, herpeviruses, adenoviruses or RNA viruses is preferred.

SmithKline Beecham Animal Health offers excellent compensation—including benefits and generous relocation assistance—and the world presence to bring your goals within reach. Send your C.V. with a letter indicating your position of interest in confidence by **October 29** to: **Human Resources Mgr.-R&D, SmithKline Beecham Animal Health, 601 W. Cornhusker Hwy., Lincoln, NE 68521.** Dedicated to Workforce diversity, we are an Affirmative Action/Equal Opportunity Employer.

SB
SmithKline Beecham
Animal Health

POSITIONS OPEN

MOLECULAR BIOLOGY TENURE-TRACK FACULTY POSITION

Notre-Dame Hospital, a major teaching hospital affiliated to the University of Montreal, invites applications for a position at the rank of **ASSISTANT PROFESSOR** in the Department of Medicine, Division of Cardiology, available April 1, 1994. The position will involve both research and teaching activities in the Molecular Cardiology Laboratory at the Louis-Charles Simard Pavilion of the Research Center of Notre-Dame Hospital. The candidate must hold a Ph.D. degree in Molecular Biology, should have a proven record of research productivity and will be expected to develop an independent, competitive research program in molecular approaches to Cardiovascular disease. The candidate should have research interests in the field of gene therapy.

The successful candidate will be eligible for competitive salary and start-up funds, new laboratory and office space, well-equipped facilities, along with the opportunity to interact with other scientists from the division of Cardiology and the Research Center of Notre-Dame Hospital.

Send curriculum vitae with a list of publications, statement of research interests, and names of three references including address and telephone numbers by December 15, 1993, to: **Eugenio Rasio, M.D., Ph.D., Director, Louis-Charles Simard Research Center, Notre-Dame Hospital, 1560 Sherbrooke East Street, Montreal, (Que) Canada H2L 4M1.**

TENURE-TRACK FACULTY POSITION MOLECULAR MAMMALIAN GENETICS

The Department of Molecular and Cellular Biochemistry, Loyola University Chicago, Stritch School of Medicine, is seeking a molecular biologist with interest in mammalian gene expression at the level of **ASSISTANT PROFESSOR** or **ASSOCIATE PROFESSOR**. Individuals with interest in oncogenes, tumor suppressor genes, and signal transduction pathways are encouraged to apply. The candidate should have a strong commitment to research and the training of graduate and medical students. The candidate will be expected to develop an independent and productive extramurally supported research program. Candidates at the associate professor level should have current extramural support and the potential for future support. Funds for relocation and start-up support for early development will be provided. Applicants should submit a letter describing their research plan, curriculum vitae, and the names of three references to: **Dr. Richard Schultz, Chair, Department of Molecular and Cellular Biochemistry, Loyola University Chicago, Stritch School of Medicine, 2160 South First Avenue, Maywood, IL 60153.** *Loyola University is an Equal Opportunity Employer.*

PENN STATE BIOLOGY DEPARTMENT—ASSISTANT PROFESSORS. FALL 1994. The Department of Biology, the Pennsylvania State University Commonwealth System, invites applications for two tenure-track positions available August 1994 at the Worthington Scranton Campus. Positions require teaching microbiology, human anatomy and physiology, environmental science and general biology. Candidates must have a Ph.D. degree, excellent teaching and continuing scholarly activity, including research and publication. Salary and rank commensurate with qualifications. Application deadline: **November 30, 1993**, or until suitable candidates are identified. Send curriculum vitae, transcripts, and three letters of reference to: **SEARCH COMMITTEE, BOX W, 208 MUELLER LABORATORY, UNIVERSITY PARK, PA 16802.** *An Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.*

COLUMBIA UNIVERSITY

The Department of Pharmacology invites applications for the position of **ASSISTANT PROFESSOR** (Tenure-track). Successful candidates are expected to establish an independent research program in molecular biology and membrane biophysics. Requirements include a Ph.D. and/or M.D. degree and a minimum of two years of postdoctoral research. Candidates should submit curriculum vitae, a brief statement of research interests and future plans, and the names of three referees to: **Dr. Brian F. Hoffman, Department of Pharmacology, Columbia University, 630 West 168th Street, New York, NY 10032.** *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

RICE UNIVERSITY
Department of Biochemistry & Cell Biology
FACULTY POSITION

Applications are invited for a tenure-track faculty position in biological sciences including but not limited to the areas of biochemistry, cell, developmental, neuro-, or molecular biology. All systems including animals, microorganisms and plants will be considered. Clear evidence of research excellence and teaching potential is essential. Emphasis in recruiting will be at the **ASSISTANT PROFESSOR** level. Review of applications will commence November 1, 1993, and the position will remain open until filled. Please send curriculum vitae, summary of past research and future research plans, and four letters of reference to:

Faculty Search Committee
Department of Biochemistry and Cell Biology
Rice University
Houston, TX 77251–1892

Rice University is an Equal Opportunity/Affirmative Action Employer; women and minority candidates are encouraged to apply.

BIOCHEMIST Search Reopened. The University of Nevada, Las Vegas (UNLV), has a tenure-track position at the **ASSISTANT** (preferred) or **ASSOCIATE** level. Ph.D. in Biochemistry (or a closely related field), a strong undergraduate chemistry background and postdoctoral experience required. Duties include participation in biochemistry courses and assisting in other offerings. Establishment of an active research program (including undergraduates) is expected. We offer both a B.A. and an ACS-approved B.S. as well as an M.S. in Chemistry and are currently awaiting ACS approval of a B.S. in Biochemistry. Collaboration possible with faculty in Biological Sciences, which offers the Ph.D. degree. Send application letter, résumé, undergraduate and graduate transcripts, statement of teaching and research goals and three letters of reference to: **Dr. S. W. Carper, Search Committee, Department of Chemistry, University of Nevada, Las Vegas, 4505 Maryland Parkway, Box 454003, Las Vegas, NV 89154–4003.** To receive full consideration, complete applications should be received by November 1, 1993. *Women and minorities are urged to apply. UNLV employs only U.S. citizens and aliens authorized to work in the United States. An Affirmative Action/Equal Opportunity Employer.*

ASSISTANT OR ASSOCIATE PROFESSOR—Full-time academic appointment for basic investigator (M.D. and/or Ph.D.) in the Renal Division, Department of Medicine, Albert Einstein College of Medicine (AECOM). Applicants should have training in molecular approaches to renal biology or disease, and be competitive for extramural funding. AECOM offers a rich scientific environment and is located in a quiet neighborhood adjacent to suburbs. Send curriculum vitae and names of three references to: **Dr. Victor Schuster, Ullmann 617, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461.** *An Equal Opportunity Employer.*

ASSISTANT PROFESSORSHIP IN MOLECULAR CELL BIOLOGY

Applicants are sought for a tenure-track position jointly in the Center for Cancer Research and the Department of Biology at the Massachusetts Institute of Technology.

Candidates should have significant research accomplishments in the areas of molecular and/or cellular mechanisms of growth control, cell differentiation or behavior. Suitable areas of interest include: intercellular signalling, signal transduction, cell cycle regulation, cell adhesion and migration. Successful candidates will be expected to establish and maintain an active research program and to participate in teaching both undergraduate and graduate students. Applicants should send curriculum vitae and a summary of proposed research and arrange to have letters sent by three scientists who can evaluate the candidate's accomplishments and future potential for both research and teaching. *MIT is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.* Applications and letters should be sent to: **CCR Cell Biology Search Committee, Room E17-110, Center for Cancer Research, Massachusetts Institute of Technology, Cambridge, MA 02139.**

ANNOUNCEMENT OF A BEHAVIORAL NEUROSCIENCE POSITION AT MICHIGAN STATE UNIVERSITY (MSU)

BEHAVIORAL NEUROSCIENTIST: The Department of Psychology at Michigan State University seeks applications for an anticipated (pending approval of the Provost Office) tenure-track position in Behavioral Neuroscience at the rank of **ASSISTANT PROFESSOR** effective August 16, 1994. We seek an individual who has demonstrated the potential to be a highly productive scholar and effective teacher in our undergraduate and graduate programs. We are interested in candidates who complement our strengths in behavioral neuroendocrinology and biological rhythms. Investigators with postdoctoral research experience working in areas related to plasticity in the adult or developing nervous system are especially encouraged to apply. Send curriculum vitae, representative reprints, and three letters of reference to: **Professor Cheryl Sisk, Department of Psychology, Psychology Research Building, Michigan State University, East Lansing, MI 48824–1117.** Application deadline January 1, 1994. *MSU is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR, MOLECULAR BIOPHYSICS WESLEYAN UNIVERSITY

The Department of Molecular Biology and Biochemistry invites applications for a tenure-track position in molecular biophysics at the Assistant Professor level. We are searching for candidates with expertise in X-ray crystallography, spectroscopy (other than magnetic resonance) or biological thermodynamics. Depending on qualifications, candidates with expertise in X-ray crystallography may be appointed at the Associate Professor level. Research areas of particular interest include the structure and interactions of regulatory proteins and the molecular basis of gene expression. The successful candidate will be expected to initiate vigorous research programs and to participate in the departmental Ph.D. program supported, in part, by an NIH training grant in Molecular Biophysics. Excellence in research and in teaching at both the graduate and undergraduate levels is expected. Please send curriculum vitae, description of research plans and three letters of recommendation to: **Molecular Biophysics Search Committee, c/o Dr. Irina M. Russu, Department of Molecular Biology and Biochemistry, Wesleyan University, Middletown, CT 06459–0175.**

Wesleyan University is an Equal Opportunity/Affirmative Action Employer. We encourage applications from minority candidates and women.

ASSISTANT/ASSOCIATE PROFESSOR OF KINESIOLOGY–PHYSICAL THERAPY (tenure-track). Duties include independent research and teaching in area of expertise. Doctorate and eligibility for Wisconsin physical therapy licensure required. Letter of application, curriculum vitae, copies of 3 published articles, names and addresses of 3 references to: **Dr. Barbara J. Morgan, University of Wisconsin, 1087 MSC, 1300 University Avenue, Madison, WI 53706** by December 15, 1993. Information about confidentiality of applicant names available on request. *Applications encouraged from women, minorities, persons with disabilities.*

RESEARCH ASSISTANT PROFESSOR: The University of South Florida is currently seeking an Assistant Professor for a Tumor Kinetics Laboratory in the Department of Radiology, Division of Radiation Oncology. Candidates must have a Doctorate degree or equivalent in a related science. Candidates will be expected to develop, in collaboration with other members of the Division of Radiation Oncology, a Research Program in Tumor Kinetics with basic and translational components. Compensation will be based upon qualifications and experience. This position is non-tenure-earning (may become tenure-earning in the future) and all applications must be received by November 4, 1993. Interested candidates should address letters of inquiry with curriculum vitae and the names of three references to: **Harvey M. Greenberg, M.D., Medical Director of Radiation Oncology, H. Lee Moffitt Cancer Center, 12902 Magnolia Drive, Tampa, FL 33612; Telephone: (813) 972-8424.** *The University of South Florida is an Equal Opportunity/Equal Access/Affirmative Action Employer.*

Howard Hughes Medical Institute

Postdoctoral Research Fellowships for Physicians

1994 Competition

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

Fellowship Terms

- Three years of support
- Full-time fundamental research
- $35,000–$55,000 annual stipend
- $15,000 annual research allowance
- $12,000 annual institutional allowance

Eligibility

- M.D., M.D./Ph.D. M.B.B.S., or D.O., with the first medical degree awarded no earlier than 1984
- At the start of the fellowship
  - at least two years of postgraduate clinical training completed
  - no more than two years of postdoctoral research training completed
- Applicants (and fellows) may not have faculty appointments
- Fellows may not be enrolled in graduate degree programs
- No citizenship requirements: U.S. citizens may study abroad, but others must study in the United States

Schedule

- Application deadline: January 5, 1994
- Awards announced: July 1994
- Fellowships start: September 1, 1994–September 1, 1995

For 1994 Program Announcements and Applications

Howard Hughes Medical Institute
Office of Grants and Special Programs/POST
Department CC94
4000 Jones Bridge Road
Chevy Chase, MD 20815-6789, United States of America
Telephone (301)215-8889

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

POSITIONS OPEN

TENURE-TRACK FACULTY POSITIONS

The Department of Biochemistry and Molecular Biology at the Medical University of South Carolina is seeking individuals at the **ASSISTANT** or beginning **ASSOCIATE PROFESSOR** level to fill three state-supported positions. Research areas of particular interest are: (1) DNA-protein interactions, (2) membrane receptors/signal transduction, and (3) biochemistry and molecular biology of cell growth and differentiation. Applicants must hold doctoral degrees and have at least two years of postdoctoral experience. Successful candidates will be expected to develop independent, extramurally supported research programs, and participate in the teaching activities of the department. The search will remain open until the positions are filled. Send curriculum vitae, statement of research plans, and the names of three references to: **Dr. Barry E. Ledford, Department of Biochemistry and Molecular Biology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.**

The Medical University of South Carolina is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSORSHIP IN IMMUNOLOGY

Applicants are sought for a tenure-track position jointly in the Center for Cancer Research and the Department of Biology at the Massachusetts Institute of Technology.

Candidates should have significant research accomplishments in immunology. While all areas of immunology will be considered, applicants in the area of cellular immunology are particularly encouraged to apply. Successful candidates will be expected to establish and maintain an active research program and to participate in teaching both undergraduate and graduate students. Applicants should send curriculum vitae and a summary of proposed research and arrange to have letters sent by three scientists who can evaluate the candidate's accomplishments and future potential for both research and teaching. *MIT is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.* Applications and letters should be sent to: **CCR Immunology Search Committee, Room E17-110, Center for Cancer Research, Massachusetts Institute of Technology, Cambridge, MA 02139.**

BOTANIST—A tenure-track **ASSISTANT PROFESSORSHIP** for a botanist is available beginning in August of 1994. Applicants should have a strong field orientation and be able to establish a successful research program involving undergraduates. In addition, they should be able to teach courses in ecology, introductory biology and botany, and one course in vascular plant biology. Broad training in biology and appreciation for the liberal arts tradition in education are very desirable. The College, with an enrollment of 1100, has a highly selective program for undergraduates and is located on a forested 10,000-acre tract on the Cumberland Plateau of Middle Tennessee. Screening of applicants will begin on November 15, 1993, but applications will be accepted until suitable candidates are found. Send letter of application, curriculum vitae, transcripts, and three letters of reference to: **Dr. Henrietta Croom, Department of Biology, The University of the South, Sewanee, TN 37383–1000.** *Equal Opportunity Employer. Women and minorities are encouraged to apply.*

ASSISTANT PROFESSOR–MOLECULAR IMMUNOLOGIST. A tenure-track faculty position in the Department of Pharmacology and Toxicology at the University of Kansas for an individual with training and postdoctoral experience in the areas of Immunology, Virology, or Immunopharmacology is available starting in August 1994; an earlier starting date is negotiable. We are looking for an individual who will establish a strong research program, interact well with other research groups in this field, and teach appropriate courses at the graduate and undergraduate level. To apply send a letter describing research interests, curriculum vitae, and the names of three references to:

Elias K. Michaelis, Chairman
Pharmacology and Toxicology
University of Kansas
Lawrence, KS 66045

Applications must be postmarked on or before November 14, 1993. *The University of Kansas is an Equal Opportunity/Affirmative Action Employer. Women and minorities are especially encouraged to apply.*

CELL BIOLOGY

The Department of Biological Sciences anticipates making two full-time tenure-track faculty appointments in the area of cell biology beginning September 1994, subject to budgetary approval, to continue expansion of the Department, which has hired six faculty in molecular or developmental biology in the past three years. These appointments are expected to be made at the **ASSISTANT PROFESSOR** level, but under exceptional circumstances experienced candidates with outstanding records will be considered for appointment at higher rank. Applicants studying the cell cycle, signal transduction, or using genetic systems to study basic cellular problems are especially encouraged to apply. The successful candidate must have a Ph.D. and extensive postdoctoral experience and will be expected to establish an extramurally funded research program, train graduate students, and participate in undergraduate education. In order to ensure full consideration, applications must be received by December 10, 1993. Applicants should send curriculum vitae along with a summary of research interests and goals, and arrange to have at least three letters of reference sent to: **Dr. Charles Walsh, Cell Biology Search Committee, Department of Biological Sciences, University of Pittsburgh, Pittsburgh, PA 15260. Telephone: (412) 624-4266.**

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

CLARK UNIVERSITY
Molecular Geneticist Position

The Department of Biology seeks a tenure-track faculty member at a level commensurate with experience to begin in September 1994. We are seeking an individual with strengths in molecular genetics whose research complements existing programs including: (1) Regulatory genes in symbiotic fungi; (2) Genetic defects in mammalian cells: (3) RNA structure and RNA-protein interactions; (4) Analysis of Receptor cell mechanisms. Strong preference will be given to those applying modern molecular genetic techniques to the study of cellular functions. Candidates for **ASSISTANT PROFESSOR** must have 2 or more years of postdoctoral experience and have the potential to develop an active, independent research program. Applicants at the **ASSOCIATE/FULL PROFESSOR** level must have demonstrated excellence in teaching, evidence of leadership and a record of productive research. Creative and effective contributions to the undergraduate teaching program in Biology are expected as well as teaching in the candidate's area of specialization.

Clark University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply. Consideration will be given until the position is filled. Formal review will begin on December 1, 1993. Applicants should send curriculum vitae along with a description of career goals, research objectives and names of 3 references to: **Chair, Biology Faculty Search Committee, Department of Biology, Clark University, Worcester, MA 01610.**

ASSISTANT DIRECTOR FOR SAFETY TESTING

Laboratory Animals Section, the Humane Society of the United States. Doctoral degree in the Life Sciences required. Expertise in safety testing preferred. Dedication to animal protection in general and to reform in the area of safety testing in particular. Good writing and speaking skills. Approximate start date, January 1994. Send résumé, references to: **Philip Mendoza, HSUS, 2100 L Street, N.W., Washington, DC 20037.**

Goodwin Biotechnology Inc. has an immediate opening for a **MANAGER, CELL CULTURE OPERATIONS**. The position requires a take-charge person with 3 to 5 years of manufacturing experience producing cGMP MAb in hollow fiber bioreactors (HFBR), bulk media prep and storage, managerial experience, and an entrepreneurial spirit. Preference will be given to applicants with hands-on experience in batch-fed mammalian cell culture and fermentation of bacterial cultures. The position has full responsibility for the department including static cell culture prep, HFBR production up to 20g of MAb per month, cGMP compliance and bioreactor process validation. Qualified candidates should FAX résumés to: **GBI at (305) 587-6378** for prompt consideration and response.

DIRECTOR, REACTOR FACILITY, REED COLLEGE

This position includes both teaching and administrative components. A Ph.D. and research reactor experience are desirable. Teachig responsibilities will include a radiochemistry course and a reactor seminar course. The facility includes a 250 kW TRIGA reactor, a radiochemistry laboratory, and a radiation counting room. Interested applicants should send curriculum vitae, a brief discussion of teaching interests and research goals, and the names and telephone numbers of three references to: **Daniel Gerrity, Chair, Reactor Director Search Committee, Department of Chemistry, Reed College, Portland, OR 97202–8199. Email: Jo_Cannon@offcampus.reed.edu**. Applications received by October 22, 1993, will be assured of full consideration. *Reed College is an Affirmative Action/Equal Opportunity Employer.*

The Public Health Laboratory of the State of Louisiana has two **LABORATORY SCIENTIST MANAGER**'s positions available. One in New Orleans and one in Alexandria. These positions require a Baccalaureate degree with a minimum of 24 semester hours in a biological science, microbiology, chemistry, nuclear science, physical sciences or any combination followed by one year of full-time professional-level experience in a laboratory facility at the supervisory level. A doctorate degree in qualifying fields may be substituted for the required experience. We would prefer candidates with Master's or Doctoral degrees. Applicants should forward curriculum vitae to: **Central Laboratory, 325 Loyola Avenue, Room 709, New Orleans, LA 70112.** *Equal Opportunity Employer.*

Current Biology Ltd seeks
AN IN-HOUSE EDITOR

with expertise in biology or chemistry, and interests in both, to help set up and produce a **NEW INTERNATIONAL JOURNAL** of research at the interface between Chemistry and Biology, located in San Francisco.

Requirements include a Ph.D. in an appropriate subject, a sense of literacy, and an ability to work under pressure and to deadlines. Previous editorial experience an advantage.

Apply with résumé and salary requirements to: **Personnel, Current Biology Ltd, 560 Irving Street, San Francisco, CA 94122.**

BIOLOGICAL SCIENCES LABORATORY INSTRUCTOR THE UNIVERSITY OF CHICAGO

The Biological Sciences Collegiate Division at the University of Chicago wishes to recruit a laboratory instructor to work with faculty in the laboratory teaching of cell and molecular biology and biochemistry to undergraduates. Applicants should have a Ph.D., relevant teaching experience, and an interest in developing a teaching career in the biological sciences. Although the primary responsibility of this position is laboratory teaching, opportunities for classroom teaching are available. Initial appointment will be at the rank of **LECTURER** and will begin in the summer or autumn of 1994; salary will be commensurate with experience. Applicants should submit curriculum vitae, a statement of teaching experience and interests, and the names of three references to: **Dr. Robert Perlman, Biological Sciences Collegiate Division, The University of Chicago, 924 East 57th Street, Chicago, IL 60637–5415.** Application deadline: 1 December 1993. *The University of Chicago is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION

A **TENURE-TRACK FACULTY POSITION** is available for a **Biochemist** at Indiana University. The successful candidate is expected to develop a productive research program and to be involved with the training of graduate students and the teaching of medical biochemistry to professional students. The position is in the School of Optometry, which is on the Bloomington campus where there is an active group of molecular biologists, biochemists and vision scientists, with many associated core facilities. Candidates should send curriculum vitae, the names of three references, and a summary of their research by November 15, 1993, to: **Dr. Sally Hegeman, School of Optometry, Indiana University, Bloomington, IN 47405.**

BS Biology, Biochemistry or a related discipline

RESEARCH ASSOCIATE

The Upjohn Company is actively recruiting a Research Associate to participate in the development, automation and implementation of biological assays to detect novel pharmacological agents in chemical libraries and/or fermentation extracts.

Candidates should have a BS/MS in Biology, Biochemistry or a related discipline. A knowledge of the basic principles of biochemistry and cell biology is necessary. Experience in tissue culture, biochemical assays, data management and a knowledge of receptor-ligand binding assays are preferred.

The Upjohn Company provides a stimulating research environment and continued opportunities for career development. For confidential consideration, please send your resume to: **THE UPJOHN COMPANY, Corporate Recruiting, Position #181, 7000 Portage Road, Kalamazoo, MI 49001.** Equal Opportunity Employer, M/F/D/V.

Upjohn

ASSISTANT PROFESSOR - PLANT GENETICS, PENN STATE: (A higher rank can be considered for an appropriately qualified candidate.) A 12 month, tenure-track, 75% research/25% teaching position is available in the Department of Horticulture. The program goal should be to better understand and enhance germplasm resources through molecular genetics analyses and manipulation. The individual will be expected to develop a program of basic research to clarify mechanisms of genetic control of important traits in plants. The research is expected to complement existing strategic thrusts involving market quality and utility of ornamental plants; root biology and other aspects of water and nutrient management in controlled environment production systems; and the biological efficiency of integrated crop management systems. The teaching responsibilities include two undergraduate courses (Plant Breeding and Horticultural Systematics), and contributions to the graduate program. The individual will have the opportunity to become part of an interdepartmental team of plant breeders, geneticists, and molecular biologists through the Intercollege Graduate Program in Genetics, the Biotechnology Institute, and courtesy appointments in other departments. The advising of graduate students, collaboration with other faculty members, development of program support, and relevance to the elements of the Pennsylvania Horticulture industry are important expectations. A Ph.D. in Plant Genetics or closely related plant science discipline with training or experience in molecular approaches and appreciation for contemporary plant breeding are required. Knowledge of horticultural systematics, germplasm resources and biodiversity is highly desirable. The salary and rank is competitive and commensurate with background and experience. An attractive benefits package is available. Applicants should submit a letter of application, resume, academic transcripts, and the names and addresses of three professional references to: **STEPHEN J. WALLNER, DEPT. OF HORTICULTURE, TYSON BUILDING, BOX GH1, THE PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK, PA 16802. (Phone: 814-865-2571; FAX: 814-863-6139).** Applications will be accepted until **January 1, 1994, or until a qualified candidate is identified.** An affirmative Action/Equal Opportunity Employer. Women and Minorities Encouraged to Apply.

SENIOR RESEARCH TOXICOLOGY

Southwest Research Institute's Biosciences and Bioengineering Department has a current opening for a Senior Research Toxicologist.

The successful candidate will perform pre-clinical research for the biotechnology industry, neurotoxicology research for the petrochemical industry, and development of medical devices. Assist the current staff in the areas of behavioral sciences, inhalation toxicology, pharmacokinetics, physiology, primatology, neurotoxicology, and veterinary medicine. The position requires being able to function as a knowledgeable, independent scientist capable of establishing and maintaining recognized competence among peers both within the Institute and the industry. Position also will involve both implementing a research specialty of their own and serving as a Study Director for GLP toxicology projects. In addition to establishing a laboratory and training staff, successful performance will require both writing of proposals, protocols, price estimating, project management, and reports as well as verbal communication with clients. A doctoral degree in an area such as toxicology, pharmacology, or physiology is required. Minimum three years of post-graduate activity, preferably in an industrial or contract laboratory environment providing experience in GLP testing and/or applied R&D, is required. The specific area of expertise is not restricted, but experience in more than one of the following areas is highly desirable: biochemistry, cell culture, dermato/ocular toxicology, general toxicology, genotoxicology, hematotoxicology, immunotoxicology, *in vitro* toxicology, or reproductive toxicology. Certification by the American Board of Toxicology is recommended. Skills in the operation of a clinical chemistry laboratory is a definite "plus" including candidates with a D.V.M. degree and pathology experience.

Southwest Research Institute is a non-profit research and development organization offering the kind of competitive salary and comprehensive benefits package that you would expect from a leader in the research industry. Resumes should be addressed to: **Barbara James, Personnel Specialist, Southwest Research Institute, Personnel Department, #716 P.O. Drawer 28510, San Antonio, Texas 78228-0510.**

An Equal Opportunity/Affirmative Action Employer

Roche

Applications are invited for the position of

LABORATORY LEADER IN EUCARYOTIC GENE EXPRESSION

The successful candidate will lead a team devoted to the expression of proteins in eucaryotic cell systems and develop a research program on novel expression technologies. The candidate will have a background in molecular biology/biotechnology and expertise in the technologies used in expressing proteins in eucaryotic cells, as documented by his/her track record. The candidate will join the Department of Biology, Pharmaceutical Research New Technologies, which is located in Basel, Switzerland.

If you are interested, please forward your detailed curriculum vitae to our personnel department, att. Mrs. S. Gräzer, quoting reference Science 132/93/Grä.

F. Hoffmann-La Roche Ltd, P.O. Box, CH-4002 Basel

POSITIONS OPEN

BIOLOGY DEPARTMENT HEAD
James Madison University

Applications are invited from persons qualified for appointment as associate or full professor to serve as Head of the Department of Biology at James Madison University. Candidates must have a Ph.D. in a biological science, administrative experiences, excellent interpersonal and communication skills, and strong credentials to foster the department's current growth in undergraduate education and excellence in undergraduate research. Area of specialization is open, but preference may be given to candidates whose area(s) of expertise complement those of the other faculty.

The department has 500 majors, 15 M.S. students and 19 faculty members. Faculty and students are engaged in a variety of externally funded research programs. An important mission is to teach undergraduates by active involvement in faculty research projects.

Anticipated date of employment is July 1, 1994. Salary is competitive. Please submit curriculum vitae, philosophies of teaching and administrative leadership, long-term goals and research interests, and names, addresses and telephone numbers of five references to: **John A. Mosbo, Chair, Biology Department Head Search Committee, c/o Chemistry Department, James Madison University, Harrisonburg, VA 22807.** Closing date for receipt of applications is November 15, 1993.

The University is an Equal Opportunity/Affirmative Action Employer and especially seeks applications from women, minorities, and persons with disabilities.

PROFESSOR AND CHAIR
Department of Microbiology and Immunology
University of North Texas Health Science Center at Fort Worth

The Department of Microbiology and Immunology of the University of North Texas Health Science Center at Fort Worth invites applications and nominations for a chairperson. Candidates must have a Ph.D., M.D., D.O. or equivalent degree and an active research program with an outstanding record of research achievement in the areas of microbiology, immunology or virology. The Chairperson will be responsible for providing academic and administrative leadership to promote the research and teaching excellence of a vital young faculty.

The UNT Health Science Center is a state-supported medical facility housed in new, well-equipped facilities. The Health Science Center includes the Texas College of Osteopathic Medicine and the Graduate School of Biomedical Sciences (M.S. and Ph.D. programs). Send curriculum vitae, statement of teaching and administrative experience, a summary of research interests and goals, a list of grant funding and three letters of recommendation by December 31, 1993, to: **Dr. Paul F. Cook, Search Committee Chairman, Department of Microbiology and Immunology, University of North Texas Health Science Center at Fort Worth, 3500 Camp Bowie Boulevard, Fort Worth, TX 76107–2699.**

UNT Health Science Center is an Equal Opportunity/Affirmative Action Employer.

DIRECTOR
Mississippi–Alabama Sea Grant Consortium

The Board of Directors of the Mississippi–Alabama Sea Grant Consortium is seeking applications and nominations for the position of Director. Under direction of Board, the Director manages $1.5 plus million budget, provides leadership for program of marine research, education, communications, outreach. Position full-time, 12-month appointment, to be filled by July 1, 1994. For information contact: **Personnel Office, Gulf Coast Research Laboratory, P.O. Box 7000, Ocean Springs, MS 39566–7000; Telephone: 601-875-2244.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION

Available immediately at Harvard Medical School for an investigator with interests and experience in mammalian genetics. We will be using PCR-based techniques for cDNA mapping of the mouse genome. The project will require extensive genetic analysis as well as management of the large data set to be generated. Please send curriculum vitae and names of three references to: **David Beier, M.D., Ph.D., Genetics Division, Brigham & Women's Hospital, 75 Francis Street, Boston, MA 02115.**

Applications are sought for a tenure-track
FACULTY POSITION

Applicants should have significant research accomplishments, the ability to establish and maintain a vigorous research program, and a commitment to excellence in education at the graduate levels.

Applicants should provide curriculum vitae, a summary of research accomplishments, a detailed statement of proposed research, courses going to offer, and copies of key publications or preprints. Applicants should arrange that at least three letters of recommendation be sent from scientists who can evaluate their accomplishments and future research and teaching. Applications should be sent to:

Prof. Der-San Chuu
College of Science
National Chiao Tung University
1001 Ta Hsueh Road,
Hsinchu, Taiwan, 30050. R.O.C.

Closing date for applications is October 31, 1993.

TENURE-TRACK FACULTY POSITIONS IN NEUROBIOLOGY AT TEXAS A&M UNIVERSITY

Applications are invited for two tenure-track positions in the Department of Anatomy & Neurobiology. Applicants should possess a Ph.D. or M.D. with a minimum of two years of postdoctoral experience. Successful applicants will be expected to establish a rigorous independent research program, compete successfully for extramural funding and to show promise in teaching. Applicants at a more senior level should have an established research program with external grant support and it would be desirable to have experience in teaching histology to medical students. Successful applicants will be expected to establish collaborative arrangements with other faculty within the department and in the neuroscience community, participate in teaching graduate and medical students, and contribute to other departmental activities. It is desirable that applicants have demonstrated research interest and experience in cellular or molecular neuroscience.

Salary is commensurate with rank and experience. Please send curriculum vitae, statement of research interest and names, addresses and telephone numbers of three references to: **James R. West, Ph.D., Professor and Head, Department of Human Anatomy and Medical Neurobiology, Texas A&M University College of Medicine, College Station, TX 77843–1114.**

Texas A&M University is an Equal Opportunity/Affirmative Action Employer committed to diversity.

Biomedical Optics and Lasers
Research Faculty Position
TUFTS UNIVERSITY/
NEW ENGLAND EYE CENTER

Tufts Electro-Optics Technology Center and New England Eye Center seek candidates for twelve-month full-time position, presently non-tenure-track with possible future conversion to tenure-track. Candidate will provide leadership in developing a teaching and sponsored research program in lasers and optics for medicine. Ph.D. in Electrical Engineering or Physics and demonstrated ability to do experimental research. Preference to candidates with research and teaching experience in biomedical optics and lasers. Send curriculum vitae and list of 3 references to: **Professor Paul Kelley, Acting Director, Electro-Optics Technology Center, Tufts University, 4 Colby Street, Medford, MA 02155.** Screening of applications will begin November 20, 1993. *Tufts University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN NEUROBIOLOGY is available immediately to study the neural control of oral behaviors in the snail, *Helisoma*. Projects could involve: video analyses of behavioral correlates of neural patterns; sensory-motor integration; intracellular or patch clamp analyses of mechanisms involved in the generation or modulation of neural patterns. Send curriculum vitae, and names and addresses of three references to: **Dr. A. Don Murphy, Department of Biological Sciences, 845 West Taylor Street, M/C 066, University of Illinois at Chicago, Chicago, IL 60607–7060.** *UIC is an Affirmative Action/Equal Opportunity Employer.*

DEPARTMENT OF BIOCHEMISTRY
University of Texas Southwestern Medical Center
FACULTY POSITION

The Department of Biochemistry at the University of Texas Southwestern Medical Center invites applications for a tenure-track faculty position at the level of **ASSISTANT PROFESSOR.** We are seeking a talented and motivated individual who will interact effectively within a department with strengths in developmental biology, molecular biology and genetics, protein structure and function and metabolic regulation. Successful applicants should be capable of applying molecular techniques to understand the role of protein interactions in fundamental cellular processes such as transcription, translation, replication, membrane trafficking, intra- or inter-cellular signaling or metabolic regulation. Scientists with strong training in protein-protein interactions or enzymology are particularly encouraged to apply. Candidates should be prepared to participate in teaching in one of several vigorous graduate programs. Applicants should submit curriculum vitae containing a brief summary of past research accomplishments, a statement of future research objectives, and three letters of reference to:

Faculty Search Committee
Department of Biochemistry
University of Texas Southwestern Medical Center
Dallas, TX 75235–9038

An Equal Opportunity Employer.

FACULTY POSITION IN STRUCTURAL BIOLOGY

The program is comprised of two faculty members working in the area of X-ray crystallography. The Division of Basic Sciences is currently seeking a third scientist studying protein or nucleic acid structure employing theoretical or crystallographic approaches. Candidates should have a broad interest in biology and be able to interact with the faculty in Basic Sciences and Molecular Medicine. Recruitment may be at any level from junior to senior faculty. Curriculum vitae, statement of research plans and letters from three references should be submitted by December 1, 1993. Please send to: **Structural Biology Committee, Division of Basic Sciences, B1-030, Fred Hutchinson Cancer Research Center, 1124 Columbia Street, Seattle, WA 98104.** *We are an Equal Opportunity/Affirmative Action Employer. Smoke-free environment.*

FACULTY POSITIONS—Department of Biomathematical Sciences at Mount Sinai School of Medicine of the City University of New York. Applications are invited from individuals with research and teaching interests in all areas of the biomathematical sciences for tenured or tenure-track faculty positions. Fields of special interest include molecular sequence analysis, biomolecular structure, mathematical physiology, mathematical neurobiology, imaging, and computational biology. Candidates will be evaluated according to their potential to sustain a nationally recognized, funded research program. Rank and salary will be commensurate with qualifications. Applicants should submit curriculum vitae, a summary of current research and a brief description of future research plans, and should arrange for three letters of reference to be sent to: **Craig J. Benham, Department of Biomathematical Sciences, Box 1023, One Gustave L. Levy Place, New York, NY 10029–6574.** The deadline for completed application is January 1, 1994. *Mount Sinai is an Affirmative Action/Equal Opportunity Employer.*

Washington University School of Medicine
Department of Biochemistry
and Molecular Biophysics
POSTDOCTORAL POSITIONS

Available in **X-RAY CRYSTALLOGRAPHY** to study proteins involved in signal transduction (Waksman *et al* (1992), *Nature,* **358**, 646, and Waksman *et al* (1993), *Cell,* **72**, 779), programmed cell death (Oltvai, Milliman, and Korsmeyer (1993), *Cell,* **74**, 609), or replication (Wong and Lohman (1992), *Science,* **256**, 350). Send curriculum vitae, summary of research experience and interests, and names of three references to: **Dr. Gabriel Waksman, Washington University School of Medicine, Department of Biochemistry and Molecular Biophysics, Box 8231, 660 South Euclid Avenue, St. Louis, MO 63110.**

The Thinking Machines Corporation Eminent Scholar Chair in High Performance Computing

Applications and nominations are invited for the TMC Eminent Scholar Chair in High Performance Computing at Florida State University. This position is supported, in part, by a $4 million endowment and will be filled at a senior level in the College of Arts and Sciences.

Applicants and nominees should have a distinguished academic or research record in one or more fields closely associated with modern high performance computing. These fields include applied mathematics, applied computer science, and computational science in one or more scientific or engineering disciplines. The appointment will be in one or more academic departments and in the Supercomputer Computations Research Institute (SCRI).

The primary responsibilities of the successful candidate will be to establish new research and education directions in high performance computing that complement the existing strong programs in SCRI, the National High Magnetic Field Laboratory, the Structural Biology Institute, the Global Climate Research Institute, and the academic departments. The Chair will be closely involved with the addition of several junior level academic appointments in connection with this new initiative in high performance computing, in order to establish the strongest possible group effort.

The deadline for applications is December 17, 1993. Applications and nominations should be sent to: HPC Chair Selection Committee, Mesoscale Air-Sea Interaction Group, Florida State University 32306-3041.

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

香 港 大 學

THE UNIVERSITY OF HONG KONG

Lecturer in the Department of Microbiology

(Ref. No: 93/94-9)

Applications are invited for the post of Lecturer in the Department of Microbiology, initially for a fixed-term contract of two years from January 1994. Applicants should be **either** medically qualified (MBBS or equivalent) **or** scientifically qualified to PhD standard with a good research record. Previous experience in a diagnostic microbiology laboratory would be an advantage.

The duties of the Lecturer will be to: (1) participate in the teaching of medical microbiology to medical and dental undergraduate students, and in research seminars and other courses or academic activities organised by the department; (2) engage in a selected area of research, after discussion with the Head of Department; (3) (for a medically qualified appointee) participate in a laboratory and consultative service to other clinical units. The appointee will be encouraged to undertake further professional training as appropriate.

Annual salary [non-superannuable but attracting 15% (taxable) terminal gratuity] is on an 11-point scale, with starting salary depending on qualifications and experience: HK$361,800 - HK$719,580 (approx. US$46,987 - US$93,452; US Dollar equivalents as at September 13, 1993). At current rates, salaries tax will not exceed 15% of gross income. Annual leave, medical benefits and a monthly cash allowance of 22% or 37% or 60% of basic salary, depending on salary, will be provided.

Further particulars and application forms may be obtained from the Appointments Unit, Registry, The University of Hong Kong, Hong Kong (fax: (852) 559 2058; E-mail: APPTUNIT@HKUVM1.HKU.HK). Closes **30 October 1993.**

NATIONAL UNIVERSITY OF SINGAPORE LEE KUAN VIEW POSTDOCTORAL FELLOWSHIP

Applications are invited for the ***Lee Kuan Yew Postdoctoral Fellowship*** from candidates with excellent academic records and proven research ability, and who had obtained their PhD degrees in the last few years.

The Fellowship will be tenable for 3 years in the first instance, with possible extension for 2 further years. It will be held concurrently with the candidate's appointment as a research staff member in one of the following Faculties/ Institutes:

Faculty of Engineering
Faculty of Medicine
Faculty of Science
Institute of Systems Science
Institute of Molecular and Cell Biology
Institute of Microelectronics

Under the Fellowship, a tax-free stipend of US$1,500 per month will be provided. This will be in addition to the following terms of appointment normally provided to a research staff member:

- Gross annual emoluments range from S$51,500 to S$65,620. (The commencing salary will depend on the appointee's qualifications and experience.)
- Leave and medical benefits will be provided. Depending on the type of contract offered, other benefits may include: provident fund benefits or an end-of-contract gratuity, a settling-in allowance of S$1,000 or S$2,000, subsidised housing or a housing allowance, education allowance for up to three children subject to a maximum of S$16,425 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore.

All academic staff have access to the following computer and telecommunication resources: a networked microcomputer (an IBM compatible or Apple Macintosh); an IBM mainframe computer with 16 MIPS of computing power; an NEC SX supercomputer with 650 MFLOPS of computing power; departmental laser printers; a wide spectrum of mainframe and microcomputer software; voice-mail. The campus-wide network, which is based on the high speed optical fibre based FDDI technology, links up all the academic staff and student microcomputers, UNIX workstations and provides access to the mainframe computer, the supercomputer, UNIX hosts, the on-line library catalogue, CD-ROM databases, Teleview, Internet and BITNET.

Applications for the fellowship should be sent to:

The Director
Personnel Department
National University of Singapore
10 Kent Ridge Crescent
Singapore 0511

or through **BITNET** to: **PERLT @ NUS3090**, or **Telefax: (65) 7783948.** (Please indicate your area(s) of specialisation of facilitate the processing of your application.)

POSITIONS OPEN

GRADUATE ASSISTANTSHIPS
DEPARTMENT OF MICROBIOLOGY & IMMUNOLOGY
UNIVERSITY OF ILLINOIS AT CHICAGO

Assistantships are available for studies leading to a Ph.D. Areas of research include prokaryotic and eukaryotic molecular biology, transcriptional and translational regulation, cancer immunology, gene therapy, immunoglobulin gene recombination, molecular basis of aging and cell death, signal transduction, bacterial chemotaxis, X-ray crystallography, molecular basis of biodegradation of environmental pollutants, molecular pathogenesis. Applications for fall 1994 admission are being accepted. Direct inquires to: **Graduate Coordinator, Department of Microbiology/Immunology (M/C 790), 901 South Wolcott, Chicago, IL 60612–7344, USA. (FAX: 312-996-6415).** *University of Illinois at Chicago is an Affiirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available for studies of sphingolipid function in yeast, including roles in proton transport, stress responses, and signal transduction. Experience in membrane biochemistry or molecular biology necessary. Send curriculum vitae and have three letters of reference sent to: **Dr. Robert Dickson or Dr. Robert Lester, Department of Biochemistry, University of Kentucky Medical Center, Lexington, KY 40536–0084.**
An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available to study DNA mismatch repair mechanism in both prokaryotes and eukaryotes. Projects include site-directed mutagenesis, protein-DNA interaction, protein purification, cDNA cloning and DNA sequencing. Training in biochemistry, molecular biology or enzymology required. Send curriculum vitae and three letters of reference to: **Dr. A-Lien LuChang, Department of Biological Chemistry, University of Maryland at Baltimore, 108 North Greene Street, Baltimore, MD 21201.** *Equal Opportunity Employer/Affirmative Action.*

POSTDOCTORAL POSITION in cancer immunology/molecular biology available. Expertise in molecular immunology preferred. Please send curriculum vitae and summary of research experience to: **Dorothee Herlyn, D.V.M., Associate Professor, THE WISTAR INSTITUTE, 3601 Spruce Street, Philadelphia, PA 19104.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to study catalytic mechanism and inhibition of human aldose reductase [see *JBC* **267**:24833–24847, 1992]. Experience in enzyme kinetics required. Please send a letter of research interest, curriculum vitae and names of three references to: **Dr. J. Mark Petrash, Department of Ophthalmology and Visual Sciences, Washington University School of Medicine, 660 South Euclid Avenue (Campus Box 8096), St. Louis, MO 63110.** *Affirmative Action/Equal Opportunity Employer, M/F/H/V.*

A **POSTDOCTORAL POSITION** is available immediately at the Fels Institute for Cancer Research, Temple University School of Medicine, Philadelphia, in the area of genome mapping and positional cloning of disease genes, and for isolating genes which are developmentally regulated and differentially expressed. Experience in molecular biological techniques is required. Interested candidates should send curriculum vitae and three letters of recommendation to: **Raj Kandpal, Ph.D., Boyer Center for Molecular Medicine, Room #331, Yale University School of Medicine, 295 Congress Avenue, New Haven, CT 06536** (until October 31, 1993). Direct enquiries after November 1, 1993, to: **Fels Institute for Cancer Research, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, PA 19140.**

POSTDOCTORAL POSITION available to participate in studies of the role of polypeptide growth factors in supporting neuronal survival *in vitro*, and in brain aging, injury, and ischemia *in vivo*. A background in molecular biology is required. Contact: **Dr. Seth Finklestein, CNS Growth Factor Research Laboratory, Massachusetts General Hospital–East, 149 13th Street, Charlestown, MA 02129. FAX: (617) 726-5677.**

POSITIONS OPEN

POSTDOCTORAL POSITION: To study the regulation of the *Ah* receptor in cell culture systems using a variety of molecular techniques. A Ph.D. is required in a biological or related science. Molecular biology experience is desirable, but not required. Send résumé and three letters of reference to: **Dr. Gary H. Perdew, Department of Foods and Nutrition, West Lafayette, IN 47907. Telephone: 317-494-8240, FAX: 317-494-0674.** *Purdue University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS
MOLECULAR AND CELLULAR ENDOCRINOLOGY

To investigate the mechanisms governing the differentiation and transdifferentiation of growth hormone– and prolactin-secreting cells. We study these processes at the single, living cell level by employing a broad spectrum of molecular and cellular strategies which include combinations of the following techniques: reverse hemolytic plaque assays for quantifying hormone secretion, video imaging of luciferase-promoter constructs for assessing gene expression, and microinjection (cytoplasmic and nuclear) for selectively introducing modulators of gene expression and hormone secretion. Background in molecular biology preferred but not required. A more senior position will be considered for individuals with extensive experience. Please send curriculum vitae and the names of three references to: **L. Stephen Frawley, Ph.D., Department of Cell Biology and Anatomy, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425. Telephone: 803-792-3526.**

POSTDOCTORAL POSITIONS are available immediately and through 1994 to work on DNA tumor virus-mediated effects on gene expression, mammalian cell cycle control, and differentiation. These studies will focus on the roles of the adenovirus E1A-associated proteins, including the retinoblastoma protein family and p300. Experience in transcription systems, molecular biology, or biochemistry would be particularly relevant. Send curriculum vitae and names of three references to: **Dr. Elizabeth Moran, Fels Institute for Cancer Research and Molecular Biology, Temple University School of Medicine, 3307 North Broad Street, Philadelphia, PA 19140.** *Temple University is an Affirmative Action/Equal Opportunity Employer and strongly encourages applications from women and minorities, M/F/D/V.*

POSTDOCTORAL POSITION IN MOLECULAR VIROLOGY AND CANCER

Position available to study the role of hepatitis B viruses in hepatocarcinogenesis. Research involves utilization of transgenic and cell culture approaches to study the role of viral genes, growth factors (particularly IGF-II) and the N-myc oncogene in hepatic cell transformation. Candidates should have a Ph.D. degree and research experience in molecular biology or virology. Please send letter summarizing background and interests, curriculum vitae and names of three references to: **Charles E. Rogler, Ph.D., Liver Research Center, Department of Medicine, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION
PLANT MOLECULAR BIOLOGY
CALGENE FRESH, INC.

Calgene Fresh, Inc. is a wholly owned subsidiary of Calgene, Inc. devoted to improving tomato and other fresh market crops through a variety of techniques including genetic engineering.

Applications are invited for a 2-year postdoctoral position to study carbohydrate metabolism in tomatoes. This project will involve both molecular biology and physiology to produce and study transgenic tomato plants altered in various aspects of carbon metabolism. Experience in recombinant DNA technology, plant physiology or related fields required. Position available January 1994. For more information please contact: **Dr. Christine Shewmaker at (916-753-6316).** We offer a competitive compensation and benefits package. Send applications including curriculum vitae and names and telephone numbers of three references by November 15, 1993, to: **Postdoctoral Search Committee, Calgene Fresh, Inc., c/o Human Resources AN-500, 1910 Fifth Street, Davis, CA 95616.** *An Equal Opportunity Employer, M/F/D/V.*

POSITIONS OPEN

POSTDOCTORAL POSITION—*Azotobacter* Nitrogenase Structure and Function—University of California, Irvine.

A position is available to study nitrogenase structure and function by construction of site-directed mutants, anaerobic purification of the mutated proteins and characterization of the proteins using biochemical and spectroscopic methods. Applicants must have a Ph.D. Deadline for application is November 8, 1993. Please send curriculum vitae and the names of three references to: **Dr. Barbara K. Burgess, Molecular Biology & Biochemistry, University of California, Irvine, Irvine, CA 92717.** *UCI is an Equal Opportunity/Affirmative Action Employer committed to excellence through diversity.*

POSTDOCTORAL POSITION in Molecular Immunology/Physiology at the Walther Oncology Center, Indiana University School of Medicine, for studies investigating structure-function relationships in receptors for tumor necrosis factor and cytokine actions on the endothelium. Please send curriculum vitae and names and telephone numnbers of three references to: **Dr. David B. Donner, Indiana University School of Medicine, Walther Oncology Center, IB 564, Indianapolis, IN 46202.**

POSTDOCTORAL POSITION available immediately to join a molecular biology group studying fungal infection mechanisms of plants. Research focuses on infection-structure (appressorium) formation by the rice-blast fungus *Magnaporthe grisea*, with emphasis on gene expression, DNA complementation of mutants, and signal transduction. Send résumé, transcripts and three letters of reference to: **Dr. R. A. Dean, Department of Plant Pathology and Physiology, 120 Long Hall, Clemson University, Clemson, SC 29634; or call (803) 656-5737.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS
Lymphocyte Development

Applications are invited for postdoctoral positions to study molecular events in haematopoietic stem cell and lymphocyte development. Please send curriculum vitae, statement of research interests and three letters of references to: **Dr. Ronald Palacios, Department of Immunology, Box 178, U.T. M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.**
An Equal Opportunity/Affirmative Action Employer. Smoke-free environment.

HUMAN GENOME POSTDOCTORAL FELLOWSHIPS available to conduct research related to the U.S. Department of Energy's Human Genome Program. Research areas include biology, chemistry, physics, mathematics, engineering, and computer and information science. Stipend is $37,500. A doctoral degree received after April 30, 1991, is required *as is U.S. citizenship or PRA status.* Deadline is February 1, 1994. Contact: **Human Genome Postdoctoral Fellowships, Science/Engineering Education Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831–0117; Telephone: (615) 576-9975.**

POSTDOCTORAL FELLOWS

Applications for three positions as Postdoctoral Fellows in the Institute of Human Nutrition of Columbia University are being solicited. These positions are available immediately for recent M.D., Ph.D. or other Doctoral Program graduates who wish to receive advanced training in nutrition. The Institute of Human Nutrition's Postdoctoral Training Program focuses on the nutritional sciences, although components which focus on the areas of clinical nutrition and public health nutrition are also available. Specific areas of research interest and training include atherosclerosis and lipid metabolism, obesity, diabetes, hypertension, cancer, body composition, neurobiology, membrane function and transport, retinoid metabolism, gene regulation, immunology, environmental toxicity and trace elements, public health and epidemiology. *U.S. citizens or permanent residents who wish to receive advanced training in any of these areas of nutrition are encouraged to apply. Minority and women applicants are especially encouraged to apply.* Applicants should send curriculum vitae, a brief description of research experience and names of three references to: **Dr. Richard Deckelbaum, Director, Institute of Human Nutrition, Columbia University, 630 West 168th Street, New York, NY 10032.** *Affirmative Action/Equal Employment Opportunity.*

United States Department of Agriculture

Postdoctoral Research Associates

Agricultural Research Service

The Agricultural Research Service, as the principal scientific research agency of USDA, conducts research to solve technical food and agricultural problems of broad scope and high national priority. The agency's work is carried out under six specific research objectives—conservation of soil, water and air, plant productivity, animal productivity, commodity conversion and delivery, human nutrition and well-being, and integration of systems. Overall aim of ARS research is to ensure the continuation of an adequate supply of food and fiber of high quality to meet the needs of American people and for export.

ARS is an Equal Opportunity Employer

ARS is currently recruiting for 50 postdoctoral positions throughout the United States. Opportunities exist in many research areas, including:

- **Human Nutrition**
- **Genetics**
- **Immunology**
- **Virology**
- **Biochemistry**
- **Chemistry**
- **Microbiology**
- **Animal Science**
- **Entomology**
- **Plant Physiology**
- **Plant Pathology**
- **Agronomy**
- **Soil Science**
- **Engineering**

Successful candidates will be hired initially for up to 2 years in duration. Salary for these positions $33,623 to $40,298 (higher in parts of CA and NY) will be based on qualifications and experience. There are some employment restrictions for non-U.S. citizens.

For written descriptions of positions and application procedures, write to:

J.M. Ruth
Personnel Division (SC)
USDA/ARS
6305 Ivy Lane, Room 129A
Greenbelt, MD 20770-1435
or call:
Julie Cypriano
(301) 344-0101

CELLULAR IMMUNOLOGIST
Staff Scientist

Applications are invited for a tenure-track scientist in cellular immunology at The Wadsworth Center for Laboratories and Research, New York State Department of Health, Albany, available fall-winter 1993. The center seeks candidates who apply cellular and molecular approaches to the study of lymphocyte activation, interaction, and/or regulation, and who will interact with established groups in virology, cell biology, biochemistry, and molecular genetics. The successful candidate will possess a broad knowledge of immunology and develop a strong independent basic research program. Participation in immunology graduate programs at the State University of New York, Albany and at other area institutions is strongly encouraged. Candidates must possess a Ph.D. or equivalent degree and have at least three years of postdoctoral experience. Salary to be commensurate with qualifications. Send curriculum vitae, a statement of current and future research interests, and names, addresses, and telephone numbers of four references by November 1, 1993 to Dr. Donal Murphy, Chairman, Immunology Search Committee, Wadsworth Center for Laboratories & Research, P.O. 509, Albany, New York 12201-0509. The Wadsworth Center is a multidisciplinary basic research and public health center, and is an equal opportunity/affirmative action employer. Women and minorities are encouraged to apply.

TWO ENDOWED CHAIRS IN PHYSICAL CHEMISTRY

University of California, San Diego

The Joseph E. Mayer Chair of Theoretical Chemistry and the Distinguished Chair of Physical Chemistry have been established at the Chemistry Department of the University of California, San Diego. Both are full, tenured professorships, salaries to be commensurate with experience and University of California salary scale. Applications, indications of interest, and recommendations of others who should be considered are most welcome. Please submit to **Professor Katja Lindenberg, Chair, Department of Chemistry, University of California, San Diego, La Jolla, CA USA 92093-0332**. All areas of physical chemistry, including applications of physical chemistry to other branches of chemistry and to other fields of science, including physical, biological, material, and environmental sciences, will be considered. All applications received by November 30, 1993 or thereafter until position is filled will be assured consideration. *Affirmative Action/Equal Opportunity Employer.*

UNIVERSITY OF
CONNECTICUT

THEORETICAL ECOLOGIST
Department of Ecology and Evolutionary Biology (Anticipated Position)

The Department of Ecology and Evolutionary Biology in conjunction with the Center for Conservation and Biodiversity seeks a Theoretical Ecologist for an anticipated tenure-track position at the Assistant Professor level for September 1994. Duties include teaching a graduate course in theoretical/mathematical ecology and participating in other graduate and undergraduate courses as appropriate. **Requirements:** strong research and teaching commitment, with a demonstrated ability to make significant contributions to ecological theory and to its integration with empirical ecology through mathematical modeling. **Send curriculum vitae, statement of research interest, reprints, and three letters of recommendation to: Dr. J. Silander, Chair, Search Committee, Department of Ecology and Evolutionary Biology, U-42, University of Connecticut, 75 N. Eagleville Rd., Storrs, CT 06269-3042. Screening of applications will begin November 8, 1993 and continue until position is filled.** *We encourage applications from under-represented groups, including minorities, women and people with disabilities.* (Search #4A103)

Research Position
Program on Environment
East-West Center

The East-West Center is a public, nonprofit education and research institution with an international board of governors. Scholars, graduate students, educators and professionals in business and government, work with the Center's staff on current Asia-Pacific issues. The Center was established in Hawaii in 1960 by the U.S. Congress, which provides principle funding. Support also comes from more than 20 Asian and Pacific governments, private agencies and corporations and through the East-West Center Foundation.

Applications are being accepted for appointment as a Fellow to conduct research in the East-West Center's Program on Environment. The initial appointment is for 1 1/2 years; extension is subject to availability of funds and satisfactory performance.

Under the direction of the program area coordinator, the fellow will supervise a multi-country research study of health-damaging and climate-warming pollutants from small widely-used combustion devices, such as kilns and cooking stoves; will oversee the data collection in-country research institution, coordinating the activities of the research teams and ensuring quality control including travel to field sites as needed; coordinates data analysis and interpretation with laboratories on the mainland United States and assists with analysis and publication of the results of the study.

REQUIRED QUALIFICATIONS: Ph.D. or equivalent in the natural sciences, with coursework related to air pollution. Ten years of substantive research experience beyond the master's degree may be considered as equivalent to the Ph.D. Field research experience studying air pollution or related topics. Good writing skills in English and ability to write up research reports for scholarly and general audiences. Ability to work with and communicate effectively with multi-national research team members. Applicants must submit a writing sample which illustrates their ability to write up research results.

PREFERRED QUALIFICATIONS: Ph.D. in environmental chemistry, environmental engineering; environmental health science. Research management experience. Experience working in a cross-cultural situation. Ability to use air pollution models.

SALARY: $33,623.00 to $44,327.00 per year, depending on qualifications, plus a cost-of-living allowance currently at 22.5% (subject to change) and an attractive benefits package.

Submit cover letter including position title and a statement addressing how the qualifications are met, a resume, and names and addresses of three professional references. Screening and assessment will be based on the materials you submit. Send to: Wanda Dial, Personnel Office, Dept. 19, East-West Center, 1777 East-West Road, Honolulu, Hawaii 96848 or FAX to: (808) 944-7970. Applications must be postmarked/FAXed by November 26, 1993.

An Equal Employment Opportunity/Affirmative Action Employer

NYU Medical Center

Assistant Research Scientist

Postdoctoral Fellow/Research Associate to study distributed brain function using single neuron multi-electrode techniques. Primary focus is cerebellar coordination of oro-facial movement in rodents. Strong background in computer programming and quantitative analysis is preferable. This position is for 2 years of support; salary is competitive.

Send curriculum vitae and 2 letters of reference to: Ms. Maha Singh, NYU Medical Center, 550 First Ave., New York, NY 10016. CVs must be received by Nov. 1. EOE, M/F.

ASSOCIATE RESEARCH SCIENTIST

Bristol-Myers Squibb, Department of Biologics Evaluation, is expanding at its Syracuse, New York location. We have a current need for a scientist to work on the development of immunologic and molecular techniques for the assessment of toxicity and antigenicity of recombinant DNA derived protein therapeutics.

To qualify, candidates should possess a BS or MS in a scientific discipline with a broad background in immunology (cellular and molecular) and the development of antibody based assays. Experience with animals and GLP procedures is desirable.

We offer an excellent salary, comprehensive benefits and a working environment conducive to professional growth. For confidential consideration, forward your resume with salary requirements to: **Manager Human Resources, Position PR-037-93, BRISTOL-MYERS SQUIBB COMPANY, P.O. Box 4755, Syracuse, NY 13221-4755.** Equal Opportunity Employer, M/F/D/V.

Bristol-Myers Squibb Company

PROGRAM OF EXCELLENCE IN MOLECULAR BIOLOGY OF THE HEART AND LUNG

Special Postdoctoral Positions

The University of Cincinnati Program of Excellence in Molecular Biology of the Heart and Lung, funded by the National Heart, Lung and Blood Institute of NIH, has as a goal the application of molecular genetic approaches to study heart and lung function. Postdoctorals work closely with the sponsor in initial years but are encouraged to develop a research program separate from that of the sponsor and apply for independent funding during the final years.

The Program is open to Ph.D.'s or M.D.'s with training in molecular genetics who wish to apply their skills to significant problems of heart or lung or to individuals with strong backgrounds in heart and lung who wish to develop molecular genetic tools for continued study of these problems. We are particularly interested in recruiting minorities to the Program. Stipends begin at $30,000 per year with benefits. Openings are available in several of the laboratories list below.

- *Na, K-ATPase gene regulation and structure-function studies including identification of the cardiac glycoside binding site using site specific mutagenesis. Jerry B. Lingrel*
- *Characterization of lung surfactant proteins and genes. Jeffrey Whitsett*
- *Collagen gene expression in the heart and lung. Winston Kao*
- *Structure-function relationships and genetic regulation of ion-transport proteins of the heart and lung. Gary Shull*
- *Targeted modification of the cardiac contractile proteins and growth and developmental control of cardiac muscle. Jeffrey Robbins*
- *Manipulating genes important in heart and lung development by insertional mutagenesis and targeted modification in ES cells. Steven Potter*
- *Structure, function and regulation of Ca^{++} channel proteins (heart, brain, vascular smooth muscle) and gene regulation; isolation of receptors for calcium antagonists. Arnold Schwartz*
- *Role of apolipoproteins in heart and lung development and in resistance to disease. Judith Harmony*
- *Targeted modification of genes important in cardiovascular development and diseases. Thomas Doetschman*
- *The genetics of human cardiovascular disease. Anil Menon*

Applicants should submit a C.V. and the names of three references to Jerry B. Lingrel, Ph.D., Director, Program of Excellence in Molecular Biology, Department of Molecular Genetics, Biochemistry and Microbiology, University of Cincinnati College of Medicine, Cincinnati, Ohio 45267-0524.

Affirmative Action/Equal Opportunity Employer

RESEARCH SCIENTIST

Baxter Healthcare Corporation is a name that is recognized and respected around the world. When it comes to research, our commitment is second to none. That's why Baxter Diagnostics Inc., currently seeks a Research Scientist to join our team.

In this position, you will become a key member of a research team developing a new technology for use in accessing platelet function. This will include optimization of the instrument/reagent system and developing additional platelet diagnostic tests for the fundamental platform.

To qualify, you should have a Ph.D. in cell biology or biochemistry with an emphasis in cell biology. A minimum of 2-5 years of experience in the area of whole blood cells and/or platelet research is required. Technical expertise in platelet/collagen interaction and collagen structure is desirable.

We can offer you a competitive salary and benefits package along with solid career opportunities. For consideration, send your resume to: **Baxter Diagnostics Inc., P.O. Box 520672, MS 602-RS, Miami, FL 33152-0672.** An Equal Opportunity Employer.

Baxter Diagnostics Inc.

Baxter

SENIOR SCIENTIST

Toxicology, U. S.

SmithKline Beecham, a worldwide leader in pharmaceutical research, has an immediate opportunity for a Senior Scientist in the Department of Toxicology, U.S. to provide scientific and managerial direction to the cardiovascular safety pharmacology staff and develop toxicity profiles on therapeutic candidates.

Successful applicants must have a Ph.D. in toxicology, pharmacology or physiology; 2-5 years experience in pharmacology and/or toxicology research and demonstrated expertise in this area through scientific publication.

Located in our state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers a stimulating environment in which to grow and excel, as well as a competitive compensation/relocation/benefits package. For confidential consideration, please forward your C.V. to: SmithKline Beecham Pharmaceuticals, Sr. Employment Administrator, #M0230, PO Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/D/V.

SB

SmithKline Beecham

Pharmaceuticals

Challenging the natural limits.

آغا خان یونیورسٹی

THE AGA KHAN UNIVERSITY

Faculty of Health Sciences

Medical College

The Aga Khan University is now in its tenth year of operation. Its affiliated Aga Khan University Hospital has well equipped teaching and service laboratories and will have 654 beds when fully operational. The University and the University Hospital are autonomous, privately funded and philanthropic institutions committed to the provision of effective Medical/Nursing education and health services relevant to Pakistan and the region.

The Faculty of Health Sciences consists of a School of Nursing and a Medical College. The current annual intake of medical students is 70. English is the medium of instruction.

Applications are invited from highly committed professionals for the following positions in our PHYSIOLOGY DEPARTMENT :

PROFESSOR AND CHAIRMAN

The individual filling this senior position will be responsible to provide dynamic academic leadership in the administration of the Department, to formulate short term and long term plans for the future development of the faculty and the department, to organize and lead the research strategy, and to promote physiology at national and international level.

The candidates must have suitable postgraduate qualifications in the related field. Achievements in research and experience in teaching and administration at a senior level is necessary.

ASSISTANT/ASSOCIATE PROFESSOR

Candidates applying for these positions must have a Ph.D in Physiology or cognate discipline and at least six to eight years of post-doctoral experience in teaching and research. Preference will be given to candidates in the field of neurophysiology, reproductive endocrinology or cardio-respiratory physiology.

The commencing salary will be based on the candidate's qualifications, experience and level of appointment offered. Our benefits package includes provident fund, insurance coverage, relocation allowance, leave and medical benefits, company maintained car for professors and housing for expatriates only. Candidates intending to pursue a career in Pakistan will be preferred. If you are seeking professional growth and an excellent work environment, please send your detailed résumé, bibliography and names of at least three referees familiar with your recent work history to the **Personnel Manager,** The Aga Khan University, P.O. Box 3500, Stadium Road, Karachi-74800, Pakistan.

POSITIONS OPEN

POSTDOCTORAL FELLOW—Position available immediately for an individual to study gene expression in pancreatic islets. Experience in molecular biology required. Send curriculum vitae to: **Dr. Michael J. MacDonald, University of Wisconsin Medical School, Room 3459, 1300 University Avenue, Madison, WI 53706, Telephone: (608) 262-1195, FAX: (608) 262-9300.**

POSTDOCTORAL FELLOW to examine the regulation of growth and differentiation of malignant hematopoietic cells. Studies will focus on the transcriptional regulation of c-Jun protooncogene activity by PKC activators and modulation of cell cycle transition by GM-CSF and pma. (*PNAS* **89**:5341,7247 and *Cell Growth and Diff.* **4**:523). Experience in molecular biology and/or protein chemistry is required. **Dr. A. Kraft, University of Alabama at Birmingham, 1824 6th Avenue South, Birmingham, AL 35294.**

POSTDOCTORAL RESEARCH FELLOWSHIPS

The **Basic Research Division** of the **Bassett Research Institute** is seeking postdoctoral fellows to begin **July 1, 1994.** The diverse research interests of staff investigators include molecular biology/immunology of autoimmune diseases, immunology of dendritic cells and flow cytometry, fatty acid transport and metabolism of albumin, gastrointestinal endocrinology, tumor nutrient metabolism and growth *in vivo*, intestinal microbial ecology and pineal/neuroendocrine regulation of cancer growth. The **Bassett Research Institute** provides a supportive and congenial environment for biomedical research, combining basic, clinical and population studies. Located in scenic upstate New York, Cooperstown offers a rich blend of cultural and outdoor activities. The **Mary Imogene Bassett Hospital** is an affiliate of Columbia University College of Physicians and Surgeons. Applicants should submit curriculum vitae, names and addresses of three references and a brief description of research interests to: **Thomas A. Pearson, M.D., Ph.D., Director, Research Institute, Mary Imogene Bassett Hospital, One Atwell Road, Cooperstown, NY 13326–1394.**

University of California, San Francisco
POSTDOCTORAL FELLOWSHIPS IN CANCER BIOLOGY

Several fellowships are available for research on the genetic, molecular, cellular, and developmental aspects of cancer biology. The faculty include: **Michael J. Banda** (wound repair; proteinases and proteinase inhibitors), **James E. Cleaver** (DNA repair genes; transgenic models of repair-deficient diseases), **William F. Morgan** (molecular mechanisms of chromosome damage and repair; delayed chromosomal instability), **John P. Murnane** (Mechanisms of rearrangement of the mammalian genome), **Roger A. Pedersen** (early mammalian development; genomic imprinting; transgenic mice; homologous recombination), **Zena Werb** (ECM signaling; metalloproteinases; mammalian development; tissue repair; mammary gland function), and **Sheldon Wolff** (chromosome damage and repair; radiation cytogenetics; SCE's). Stipends are funded through NIEHS. Appointments can begin immediately. The requirements are a Ph.D. degree or equivalent, preferably in genetics, biochemistry, molecular biology, cell biology or development. *Trainees must be U.S. citizens or permanent residents.* Send résumé, graduate transcript, statement of research interests, and three letters of recommendation by January 15, 1994, to: **Dr. Zena Werb, Program Director, Laboratory of Radiobiology and Environmental Health, University of California, San Francisco, CA 94143–0750.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH FELLOWSHIP IN CARDIOVASCULAR PHYSIOLOGY 1-YEAR FELLOWSHIP

Ph.D. or M.D., familiar with chronic animal models of cardiovascular function and disease. Studies include CNS and autonomic control and computer-assisted left ventricular function analysis. Good writing and data analysis skills required. Please send curriculum vitae and names of references to: **Dr. Debra Kirby, Department of Cardiovascular Surgery, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. FAX: (617) 735-6742.**

Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL ASSOCIATE. Position available immediately to investigate the molecular genetics of a cytochrome P450 involved in insecticide resistance. Expertise with expression vector systems, protein engineering, sequence database searching and other molecular techniques desirable. Send curriculum vitae, a brief statement of research interests and have three letters of reference sent to: **Dr. J. G. Scott, Department of Entomology, Comstock Hall, Cornell University, Ithaca, NY 14853; FAX: 607-255-0939.** *An Equal Opportunity Employer.*

Transgenic plant **POSTDOCTORAL RESEARCH AND TECHNICAL TERM POSITIONS** available to work on (oilseed) flax for crop improvement. Our small group deals with all aspects, from *Agrobacterium* transformation to field testing for commercial release of transgenic cultivars. If you have experience in PCR (P/E 9600), Agrobacteria, etc., we can teach you about flax. Send full curriculum vitae to: **Dr. Alan McHughen, Crop Development Centre, University of Saskatchewan, Saskatoon, SK S7N 0W0, Canada. FAX: (306) 966-5015; Email: McHughen@Sask.Usask.Ca.**

POSTDOCTORAL ASSOCIATE

Postdoctoral position available to study physiological and pharmacological aspects of neuropeptide and biogenic amine receptors. Experience in quantitative autoradiography, immunocytochemistry, isolated organ preparations, whole animal physiology, and HPLC is essential. At least five years of postdoctoral experience is required. Starting salary will be commensurate with qualifications and experience ($33,504 to $62,293). Send curriculum vitae, and names and addresses of three references to: **J.M. Saavedra, M.D., Section on Pharmacology, LCS, NIMH, Building 10, Room 2D-45, 9000 Rockville Pike, Bethesda, MD 20892.**

NIMH is an Equal Opportunity Employer.

RESEARCH ASSOCIATE

Research Associate position available immediately at Florida A&M University, College of Pharmacy and Pharmaceutical Sciences, Division of Basic Pharmaceutical Sciences. The successful candidate will work for two Ph.D. scientists and will join our ATSDR-supported Substance Specific "Heavy Metal" Laboratory and study the effect of lead on the phosphorylation of enzymes and proteins involved in the neurotransmitter system. We seek a creative/cooperative scientist with demonstrated expertise in cell culture techniques, standard molecular biology techniques, and basic biochemistry techniques. Skilled in gel electrophoresis, HPLC, autoradiography enzyme assays, protein and enzyme purification. Additional responsibilities include laboratory organization and management research together with graduate and undergraduate students.

Requirements: Ph.D. in Molecular Biology/Biochemistry or Biochemical Pharmacology or Pharmacology/Toxicology with course work in molecular biology techniques. Initial appointment for two years with the possibility of annual renewal. Salary negotiable; Minimum salary $20,000, Benefits $7,000. Send curriculum vitae, publications, and names and telephone numbers of three references to: **Dr. R. Renee Reams, Florida A&M University, College of Pharmacy and Pharmaceutical Sciences, Tallahassee, FL 32307.**

Florida A&M University, a state operated HBCU, is a committed Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.

RESEARCH ASSOCIATE: Position available for one to three years to participate in research involving cell surface antigen recognition and processing. Candidates should have experience with cell culture techniques and *in vitro* assays of cell function (proliferation/cytotoxicity). Additional experience in molecular biology, protein purification, affinity chromatography, and immunofluorescence is desirable. Candidate should have a Ph.D. or Master's degree in immunology or microbiology. Interested candidate should send curriculum vitae to: **Thomas G. Sharp, M.D., Department of Surgery, Indiana University School of Medicine, 545 Barnhill Drive–Room 228, Indianapolis, IN 46202.** *Indiana University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE MOLECULAR ONCOLOGY

A position is available for a postdoctoral fellow to study growth factors in gynecological cancer. The candidate must have a Ph.D. in biochemistry or molecular biology. The candidate will also be involved in studies on new immunotherapeutics and antisense therapy. Knowledge of cellular and molecular biology and experience with protein, RNA, and DNA purification and analysis is desirable. Experience with handling radioactive materials is a must. Please send curriculum vitae along with letter of interest to: **Ewa Rakowicz-Szulczynska, Ph.D., Director of GYN Molecular Oncology Labs, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198–3255,** or **FAX: (402) 559-5015.** *UNMC is an Equal Opportunity/Affirmative Action Employer.*

Ph.D.—Full-time **RESEARCH POSITION** for a Ph.D. at the Obesity Research Center to participate in ongoing studies of Adipose Tissue and Muscle Metabolism, including Molecular Biology Techniques. Candidates should have at least four years of progressively responsible scientific experience in the field of Obesity Research and be eligible for a tenure-track scientist position at the College of Physicians & Surgeons, Columbia University. Reply with curriculum vitae to: **F.X. Pi-Sunyer, M.D., Director, New York Obesity Research Center, St. Luke's–Roosevelt Hospital Center, 1111 Amsterdam Avenue, New York, NY 10025.** *Equal Opportunity Employer, M/F/D/V.*

RESEARCH ASSOCIATE POSITION in clinical chemistry laboratory to start immediately for Ph.D. with experience in clinical chemistry assay development, administration and writing. This position has the potential for a long-term position. Salary and benefits are competitive. Apply to: **D.J. Baylink, M.D., VA Medical Center (151), 11201 Benton Street, Loma Linda, CA 92357.** *Equal Opportunity Employer.*

TOXICOLOGISTS

The California Environmental Protection Agency, Department of Pesticide Regulation seeks Staff Toxicologists in its pesticide regulatory program. Incumbents will evaluate toxicology studies and/or conduct risk assessments. Positions exist for individuals with Doctorate degrees in toxicology, pharmacology, or a closely related field with suitable experience in animal toxicology. Salary range begins at $4378 per month (minimum, Ph.D. and 3 years of experience). Comprehensive benefits package. Continuous testing, oral exam required. Submit résumés to:

Department of Pesticide Regulation
Examinations Unit
1220 N Street, Room 154
Sacramento, CA 95814

ars Agricultural Research Service — United States Department of Agriculture

RESEARCH HYDROLOGIST; USDA-ARS has a permanent position at the Hydrology Laboratory, Beltsville, Maryland. Incumbent will (1) plan, coordinate, and conduct large-scale field experiments which encompass a wide range of remote sensing techniques and (2) develop, evaluate and improve physically based models which utilize remotely sensed data to estimate surface water and energy balance at local and regional scales. Degree in Hydrology or a related discipline plus knowledge in remote sensing techniques is required. A Ph.D. and research experience using remote sensing techniques are preferred. Position will be filled at the GS-12 level, which has a salary range $33,623 to $52,385 per annum, based on qualifications and experience. For position information contact: **Dr. Walter Rawls, Hydrology Laboratory, Natural Resources Institute, Beltsville, MD 20705; or call 301-504-8745; FAX: 301-504-8931.** For the vacancy announcement and application procedures contact: **Rose Cunningham, ARS Personnel, 6305 Ivy Lane, Greenbelt, MD 20770–1435; or call 301-344-0105.** Applications must be marked **ARS-D-3-B0047-3** and postmarked by October 25, 1993. Incomplete applications will not be considered. *Minorities and women are encouraged to apply. ARS is an Equal Opportunity Employer.*

VICE PRESIDENT RESEARCH

Aviron is an exciting new San Francisco Bay Area biopharmaceutical company focused on the prevention of viral diseases. Aviron is using proprietary technology to develop live virus vaccines for major respiratory viruses and herpesviruses. This is an opportunity to become a part of an experienced management team, talented scientists, and a highly committed and distinguished scientific advisory board.

You will provide continuing direction to the research efforts of the company. As a member of senior management, you will develop long-term research goals and ensure their attainment through the efforts of the Research organization.

The ideal candidate should possess a PhD and/or MD with a broad-based knowledge of infectious diseases. Recognition within research and at least ten years of progressively responsible research management are prerequisites to this position.

Don't miss this opportunity to make an impact on this young and dynamic company. Please send your C.V. to: Aviron, Human Resources Dept. VS, 1450 Rollins Road, Burlingame, CA 94010. EOE.

Aviron

THE LIPOSOME COMPANY

The Liposome Company, a rapidly growing Biopharmaceuticals firm specializing in liposome and lipid-based drug delivery systems, has this exciting opportunity:

POST-DOCTORAL FELLOW/ SCIENTIST

An opportunity is available for a Post-doctoral Fellow/Scientist with experience in virology, human tissue culture and/or cellular immunology. Experience with isolation and characterization of primary human cell culture and viral pathology is highly desired. Projects include the application of these techniques to cell/pathogen interactions and novel therapeutics. A Ph.D. and appropriate research experience are required.

We offer a competitive salary and comprehensive benefits package. Interested candidates please send your resume to: ***Human Resources Department, One Research Way, Princeton, NJ 08540.*** *An Equal Opportunity Employer.*

THE LIPOSOME COMPANY, INC.
EXPANDING THE HORIZONS OF BIOTECHNOLOGY™

香 港 大 學
THE UNIVERSITY OF HONG KONG

Lecturers In Educational/ School Psychology and Clinical Psychology

Applications are invited for the following Lectureships in the Department of Psychology: (1) Educational/School Psychology (RF-93/94-10), tenable from January 1994, for a fixed-term of two and a half years; (2) Clinical Psychology (RF-93/94-11), tenable from September 1994, for a fixed-term of three years; both with the possibility of renewal.

For post (1), applicants should be scholar-practitioners with at least a Master's degree and preferably a Ph.D. degree in educational or school psychology. They should have relevant working experience and a good track record in research. Eligibility for licensing in the U.S. or registration as a Chartered Educational Psychologist in the U.K. is required. Familiarity with Hong Kong and fluency in Cantonese are preferred'

For post (2), applicants should have at least a Master's degree and preferably a Ph.D. degree in clinical psychology from an accredited institution. Relevant working experience, fluency in Cantonese, and familiarity with the local setting are desirable. The appointee should also have a good track record in research. All theoretical orientations are equally considered.

For both posts, the appointees shall function as core members of the postgraduate educational/clinical psychology programme, and shall play an integral part in the programme's teaching and supervision activities. Some undergraduate teaching will also be involved. The appointees are expected to undertake research in an area of interest, and to assist in administrative duties as required.

Annual salary [non-superannuable but attracting 15% (taxable) terminal gratuity] is on an 11-point scale, with starting salary depending on qualifications and experience: HK$377,220 - HK$630,180 (approx. US$48,736 - US$81,419; US Dollar equivalents as September 20, 1993). At current rates, salaries tax will not exceed 15% of gross income. Children's education allowances, leave, and medical benefits are provided; housing or tenancy allowances are also provided in most cases at a charge of 7.5% of salary.

Further particulars and application forms may be obtained from the Appointments Unit, Registry, The University of Hong Kong, Hong Kong (fax: (852) 559 2058; E-mail: APPTUNIT@HKUVM1.HKU.HK). Closes **31 December 1993**.

POSITIONS OPEN

RESEARCH ASSOCIATE
UNIVERSITY OF MINNESOTA
CANCER CENTER

An annually renewable position at the rank of Research Associate is available approximately December 1, 1993, for candidates who hold a Ph.D. in the Biological Sciences or an M.D., with at least three years of postdoctoral experience in protein chemistry and molecular biology. This position is part of a large program at this institution developing immunotoxins and immunoconjugates for human use. This individual will play a major role in the ongoing development of genetically engineered immunotoxins against normal and malignant lymphocytes. Applicants should send curriculum vitae, names of three references and a brief synopsis of recent research activities to: **Research Associate Search, Attention: John Kersey, M.D., University of Minnesota Cancer Center, Box 806 UMHC, 420 Delaware Street, SE, Minneapolis, MN 55455**. Deadline for application is November 22, 1993. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

R.S. DOW NEUROLOGICAL SCIENCES INSTITUTE

Basic discoveries of the nervous system leading to innovative patient care

NEUROBIOLOGIST. The R.S. Dow Neurological Sciences Institute is opening a new position in the field of subcellular and cellular neurobiology. The Institute is committed to a strong interdisciplinary research environment. Candidates with research interests in the fields of biochemistry, molecular biology, pharmacology, cell biology are encouraged to apply. Generous start-up funds, equipment and laboratory space are available. Level of appointment will depend upon research accomplishments.

Candidates should submit curriculum vitae, three letters of reference, and a brief statement of research goals by November 30, 1993, to: **Neurobiology Search Committee, R.S. Dow Neurological Sciences Institute, 1120 N.W. 20th Avenue, Portland, OR 97209**.

EH&S SPECIALISTS

The University of California, Irvine, is seeking two EH&S Specialists to develop and implement comprehensive laboratory safety policies and procedures. One position will serve the College of Medicine and the other the Schools of Biological Sciences and Physical Sciences.

Responsibilities include assisting laboratory personnel with implementing safe operating and hazardous waste minimization procedures, training lab workers, inspecting laboratories, and assisting faculty and staff in implementing school-wide laboratory safety policies and procedures. Requires strong work experience applying the principles of occupational health, safety and environmental protection in an academic laboratory environment, as well as experience with developing and implementing policies and procedures, training/information and record-keeping programs. Effective written and oral communication skills are needed. Advanced degree in scientific discipline desirable.

Please request required application materials for **Job #CUE-822** by calling **(714) 856-4117**. Submit completed application and résumé to: **UCI Campus, Human Resources, Irvine, CA 92717–4600.** *Affirmative Action/Equal Opportunity Employer.*

MEDICAL SYSTEMS ANALYST at major university medical center to develop image processing software programs and contribute to maintenance of hardware for stereotactic research and clinical settings, under direct supervision of stereotactic neurosurgeon, collaborating with computer science and biomedical engineering faculty. Minimum requirements include an M.S. in Electrical Engineering with specialization in software development, image processing and medical applications. Must be knowledgeable in UNIX operating system (including Internals); programming languages including C, Pascal, FORTRAN and C++; the X Window system; SUN computer workstations; and experienced in software development of interfaces with image acquisitions systems. Experience may have been acquired as a graduate student. Salary $34,000 per year. Send curriculum vitae and three references to: **Job Order # TN 1402965, Ms. Kathy Malo, Job Service Programs and Technical Support, Tennessee Department of Employment Security, Nashville, TN 37245–1200.**

BIOLOGIST

Full-time tenure-track biologist sought for September 1994 to join a faculty of five in an undergraduate department. Teaching will include vertebrate anatomy and embryology. Research with undergraduates and advising of pre-health students expected. Area of specialization may include endocrinology, neurobiology, immunobiology, or developmental biology. Ph.D. required. Applications should include curriculum vitae, a letter indicating interest and skills in teaching, a statement of research activities, and the names and addresses of three references. Applications must arrive by 4:00 p.m., November 1, 1993. Send applications to: **Dr. James Malcolm, Department of Biology, University of Redlands, P.O. Box 3080, Redlands, CA 92373–0999**. The University of Redlands is a private, liberal arts university. The College of Arts and Sciences, in which this position exists, enrolls 1500 undergraduates. The University lies between Los Angeles and Palm Springs. *The University of Redlands is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

FIELD BOTANISTS (2)
THE NEW YORK BOTANICAL GARDEN

The Institute of Economic Botany of the New York Botanical Garden (NYBG) announces two positions for **Field Botanists** (1 Ph.D.-level and 1 B.Sc.-level) with background in plant taxonomy and field experience within the United States. Duties are to collect, identify and voucher a broad range of plant taxa from the United States and its territories and possessions. Extensive travel is required. Successful applicants will participate in a study that assesses the potential utility of plant extracts in pharmaceutical products, as part of a collaborative project with scientists from Pfizer Inc. The NYBG Institute of Economic Botany carries out basic and applied research on the relationship between people and plants. Please send curriculum vitae and names of three references to: **Personnel Department–FB, The New York Botanical Garden, Bronx, NY 10458–5126. FAX: 718-220-6504.** *Affirmative Action/Equal Opportunity Employer/M/F/D/V.*

SCIENTISTS
DNA DIAGNOSTICS

NAXCOR is a young, dynamic biotechnology company developing a new class of DNA probes for diagnostic and therapeutic products. We are seeking energetic and creative scientists who are looking for a challenging environment. The following opportunities are available:

SENIOR SCIENTIST

A Ph.D.-level scientist with a background in DNA probe diagnostics. This individual will be part of a team responsible for the development and implementation of all phases of assay design. Two to three years of experience in commercial DNA-based diagnostics desired.

RESEARCH SCIENTIST

An M.S. or equivalent–level scientist with experience in DNA diagnostics. This individual will be involved in the optimization of products prior to commercialization. One to two years of experience in DNA/RNA hybridization, HPLC, and gel electrophoresis are required.

Please send cover letter and résumé to: **NAXCOR, 87 Encina Avenue, Palo Alto, CA 94301.** *We are an Equal Opportunity Employer.*

SPECIALIST IN MICROSCOPY

The successful candidate will develop and manage a histology and immunofluorescence microscopy facility. Responsibilities include execution of research projects, upkeep and operation of various Zeiss microscopes, maintenance and ordering of supplies as well as assisting and training members of the Department. New protocols in histochemistry as well as image analysis should be introduced.

The candidate should have a B.S./M.S. (Ph.D. preferred) in the biomedical field and two or three years of experience in cytology, immunocytochemistry, *in situ* hybridization and immunofluorescence microscopy.

Send letter of application, curriculum vitae and names of three references to:

Dr. Heinrich Leonhardt
Department of Cardiology/Room 1309 Enders
Children's Hospital
320 Longwood Avenue
Boston, MA 02115

Children's Hospital is an Affirmative Action/Equal Opportunity Employer.

BIOCHEMIST—The Chemistry Department of **Williams College** invites applications for a temporary (one-semester) position in biochemistry for spring 1994. The teaching responsibilities involve a senior seminar course on biochemistry (to review current literature in biochemistry and molecular biology) and the supervision of two introductory chemistry laboratory sections. Candidates should have a Ph.D. or be completing dissertation in biochemistry or related areas. The minimum salary for the position is $16,000. Williams College is a highly selective, coeducational liberal arts institution of approximately 230 faculty and 2000 undergraduates, located in northwestern Massachusetts. The Chemistry Department, with ten faculty members and 25 to 35 majors each year, is accredited by the ACS and has excellent facilities for teaching and research. Send résumé, undergraduate and graduate transcripts, and two letters of recommendation to: **Dr. Charles Lovett, Jr., Department of Chemistry, Williams College, Williamstown, MA 01267**, by November 23, 1993. *As an Affirmative Action/Equal Opportunity Employer, Williams College is especially interested in identifying minority and women candidates.*

CARDIOVASCULAR RESEARCH SCIENTIST

The Section of Cardiology of East Carolina University School of Medicine has an opening for a Research Scientist. The research laboratory is fully equipped for experiments assessing myocardial contractile function and the evaluation of coronary artery blood flow. Responsibilities include independent academic research, support of research activities of clinical faculty, and instruction and supervision of cardiology fellows involved in basic research projects. Requirements are a Ph.D. in pharmacology/physiology or other relevant medical science; plus additional postdoctoral training and experience in surgical techniques, cardiovascular diseases, and experimental design and analysis; some managerial experience and demonstrated independence in prior research activities. Salary is commensurate with experience and qualifications and is comparable to other academic institutions. Send curriculum vitae to: **William C. Reeves, M.D., Professor of Medicine & Section Head, Section of Cardiology, East Carolina University School of Medicine, Greenville, NC 27858–4354; Telephone: 800-775-4651**. Federal law requires proper documentation of identity and employability prior to final consideration for this position. *Affirmative Action/Equal Opportunity Employer.*

CELLULAR AND MOLECULAR PHYSIOLOGY OF REPRODUCTION TRAINING FOR M.D. OR PH.D. SCIENTISTS
UNIVERSITY OF VIRGINIA

Positions are available now for M.D. or Ph.D. scientists who wish to apply molecular, cellular or physiological approaches to study reproductive processes in experimental models or man. Support is available *for U.S. citizens or permanent residents* through an NIH-funded training program. A Ph.D. or board-eligibility in a medical or surgical specialty is required for appointment. *Non-U.S. citizens with other funding may also apply.* Submit applications to: **Claude Desjardins, Center for Research in Reproduction, Medical Center Box 391, University of Virginia, Charlottesville, VA 22908. Telephone: 804-982-4310**. Include curriculum vitae, reprints of publications, 3 letters of recommendation, and a short statement of research interest.

MEETINGS

FIFTH INTERNATIONAL CONFERENCE ON MOLECULAR BIOLOGY AND PATHOLOGY OF MATRIX
PHILADELPHIA, PENNSYLVANIA
SUNDAY, JUNE 19–
WEDNESDAY, JUNE 22, 1994

Current research in the field of collagen and other extracellular matrix molecules will be presented by invited international experts. Poster sessions will also be held. For information, please write:

Darwin J. Prockop, M.D., Ph.D.
Jefferson Institute of Molecular Medicine
Jefferson Medical College
Thomas Jefferson University
Philadelphia, PA 19107
Telephone: 215-955-2025 or 955-4830

CONACYT

SCIENTIFIC OPPORTUNITIES IN MEXICO

THE NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY OF MEXICO ANNOUNCES THE AVAILABILITY OF ACADEMIC POSITIONS IN MEXICAN UNIVERSITIES AND RESEARCH INSTITUTES ALL OVER THE COUNTRY

Working conditions for scientists in Mexico are excellent due to the commitment of the government for building up strong scientific and technological capabilities. The CONACYT will finance the position for up to two years, and in case of satisfactory results the recipient institution will be able to offer the candidate a tenure track position

Candidates in the following areas, among others, will be specially considered:

Mathematics	Materials Science	Inorganic Chemistry	Seismology	Electronics
Statistics	Metallurgy	Molecular Biology	Geophysics	Archaeology
Computer Science	Corrosion of Materials	Biotechnology	Mech. Engineering	
Physics	Catalysis Science	Oceanography	Electrical Engineering	

Appointments can be made at all levels depending on qualifications:

*Qualified candidates will possess at least a Ph. D or equivalent

*Candidates are expected to do high quality research and to be responsible for the development of Mexican students, thus improving Mexican science

*They should be fluent in English, although they are expected to be able to communicate in Spanish within a year

*Applicants should submit resumé, including the list of their last international research papers, and their full address, telephone and Fax number to:

PROGRAM FOR STRENGTHENING THE S&T CAPABILITIES
CONACYT, Av.Constituyentes 1046, Col. Lomas Altas
11950 México, D.F. México Fax: (52-5) 570-4324

MEDICAL UNIVERSITY OF SOUTH CAROLINA

CHAIR
DEPARTMENT OF PHYSIOLOGY

The MEDICAL UNIVERSITY SOUTH CAROLINA College of Medicine has initiated a search for a Chairperson to lead the Department of Physiology. The Medical University is actively expanding its research base and clinical activities with the planned addition of two research buildings and an ambulatory care facility. Faculty positions and research space will be provided for growth in the Department. The academic environment provides outstanding opportunities for research initiatives in the Department, in the neurosciences, and in the newly developed interdisciplinary Hollings Cancer Center, Molecular and Structural Biology Center, and the Gazes Cardiac Center.

Applications and nominations should include a curriculum vitae, summary of current research activities, a description of teaching and administrative experience, and the names, addresses and telephone numbers of three or more references. Applications will be reviewed until a satisfactory candidate has been chosen. Send replies to: A. Julian Garvin, M.D., Ph.D., Chairman, Physiology Search Committee, Dean's Office, College of Medicine, Medical University of South Carolina, 171 Ashley Avenue, Charleston, South Carolina 29425-2201.

The Medical University of South Carolina is an Equal Opportunity/Affirmative Action Employer.

NIH/NASA CENTER FOR VESTIBULAR RESEARCH

RESEARCH FACULTY and POSTDOCTORAL FELLOWS with expertise in neurophysiology and/or biomechanics are sought to carry out research on vestibulospinal control of head position and posture in newly established Center for Vestibular Research supported jointly by NIDCD and NASA. A five year plan of research involves the latest methods for **single neuron recording and behavioral analysis** in behaving animals, **biomechanical analysis** of human postural and head movement systems and **computer modeling** ranging from neural network models to realistic biomechanical simulations.

Research opportunities are available in Chicago, IL and Portland, OR with the investigators listed below:

James F. Baker, Northwestern University - Neural and Behavioral analyses of linear vestibular-neck reflexes in alert primates. Emphasis will be placed on recording and modeling the patterns of neural activity that underlie these reflexes and their adaptive modulation.

Richard D. Boyle, Oregon Health Sciences Univ. - Morphophysiological studies of vestibulospinal neurons and vestibulo-oculomotor interactions in vestibulospinal neurons in alert primates.

Jay M. Goldberg and Robert A. McCrea, University of Chicago - Interaction of head stabilization and gaze shifts in alert primates. Experiments will include single neuron recordings and analysis of behavior before and during functional galvanic ablation of vestibular afferent inputs.

Fay B. Horak and Robert J. Peterka, RS Dow Neurological Sciences Institute, Portland, OR - Role of otolith and semicircular canal information in coordination of human postural movements. This study will use behavioral recording and biomechanical modeling to characterize postural responses of normal and vestibular-deficient subjects.

Jane M. Macpherson, RS Dow Neurological Sciences Institute, Portland, OR - Vestibulospinal contributions to postural responses and locomotion in awake, behaving cats.

Barry W. Peterson, Northwestern University and Rehabilitation Institute of Chicago - Analysis of neural and biomechanical contributions of human head stabilization. Emphasis will be placed on understanding the contribution of vestibular otolith organs to stabilizing responses.

For further information, contact: **Barry W. Peterson, Director, Center for Vestibular Research, Northwestern University Medical School, M211, Chicago, IL 60611.** Northwestern University and other institutions in the Center for Vestibular Research are equal opportunity employers.

Northwestern University

R. S. Dow Neurological Sciences Institute
LEGACY
Good Samaritan Hospital
Portland, Oregon

Neurological Sciences Institute

University of Chicago

RESEARCH DIRECTOR

The Morton Arboretum invites applications for the position of Research Director. The Arboretum is a privately operated museum of woody plants, and is one of the premier arboreta in the world. It is located on 1500 acres in the western suburbs of Chicago, Illinois.

The Research Director, the senior administrator for research at the Arboretum, leads a diverse, balanced program of practical research related to woody plants, coordinated with the Arboretum's Collections and Education Programs. Outstanding, modern research facilities and significant natural and experimental land support the Research Program. The Research Director is responsible for the 12-member Research staff and an annual operating budget in excess of $700,000.

Minimum qualifications include a Ph.D. degree in the plant sciences, demonstrated research ability and productivity, strong administrative and leadership skills and experience, and excellent people skills in interactions with the public, staff, and other professionals. Desired is a professional background and interest in woody plants, ecology, and horticulture.

Send curriculum vitae and a list of references to: **Dr. Gerard T. Donnelly, Director, The Morton Arboretum, Lisle, IL 60532.**

SCIENCE EDITOR

Radiation Effects Research Foundation Hiroshima and Nagasaki, Japan

The U.S. National Academy of Sciences (NAS) is seeking a science editor/writer to work at the Radiation Effects Research Foundation (RERF) in Hiroshima, Japan. A bi-national foundation equally funded by the governments of Japan and the United States and equally managed by representatives of the two countries, RERF conducts research on the health of survivors of the atomic bombings of Hiroshima and Nagasaki. Research includes studies in medicine, pathology, epidemiology and biostatistics, molecular biology, and cytogenetics, resulting in 25-40 technical reports each year drafted in English by U.S. and Japanese scientists. The science editor assists authors with drafts during manuscript peer review and edits biomedical manuscripts to meet the style and format requirements of major scientific journals. Assists in editing and writing articles for quarterly international newsletter. Position requires 5 or more years experience as an editor/writer in the health sciences or related fields, basic knowledge of publication production, and basic computer literacy, emphasizing the practical aspects of desktop publishing (word processing and file compatibility). Ability to work under deadline pressure. Japanese-language skills are not required, although willingness to learn some basic Japanese is helpful. Salaries are commensurate with experience and are supplemented by relocation, housing, cost-of-living, and home-leave benefits. Tuition at international schools is provided for dependent children through high school. Individuals who work in Japan are employees of NAS and RERF. Typical appointments are for two years. Please send resume and the name, address, and E-Mail address/fax number (if available) of three references in confidence to: **NRC/RERF, NAS 342(CB), 2101 Constitution Avenue, NW, Washington, DC 20418.** EOE.

NAS NRC NAE IOM

ASSISTANT OR ASSOCIATE PROFESSOR COLLEGE OF PHARMACY THE OHIO STATE UNIVERSITY

The Division of Pharmaceutics and Pharmaceutical Chemistry invites applications for a tenure-track position at the Assistant or Associate level. Applicants should have a Ph.D. degree in Pharmaceutics, Pharmaceutical Chemistry, Molecular Genetics, Molecular Biology, or a closely related field of biomedical research. Post doctoral experience, a professional degree in pharmacy and teaching experience are desirable, with preference given to experience in a college of pharmacy. Successful candidates must have a demonstrated potential for developing a creative, independent research program for appointment at the assistant level or must have an active, extramurally funded research program at the associate level. To complement existing strengths in the division, a research program is preferred at the molecular or cellular level in the areas of targeted drug delivery, gene therapy, controlled release including polymeric systems, and macromolecular drugs. The individual selected will be expected to teach at the undergraduate and graduate level, develop and maintain an extramurally funded research program, and participate in committee service. The Ohio State University offers an excellent research environment including interdisciplinary medical center complex, the Arthur G. James Cancer Hospital and Research Institute and the Comprehensive Cancer Center, The Biotechnology Center, and a Super Computer Center. The College of Pharmacy will expand into new research laboratories in July, 1994. Applicants should provide a letter of application, a curriculum vita, the names and addresses of three references and a statement of research interests and professional goals. Please contact Dr. Jessie L.S. Au, Chair, Search Committee, College of Pharmacy, The Ohio State University, 500 West 12th Avenue, Columbus, OH 43210. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era Veterans, disabled veterans and individuals with disabilities are encouraged to apply.

New York University

FACULTY POSITIONS

Department of Biology

The NYU Department of Biology is undergoing a major program of expansion and development. Two positions are presently available (subject to budgetary approval), in the areas of genetics and biochemistry. Outstanding candidates in other areas will also be considered. One appointment will be made at the assistant professor level (tenure-track); one will be made to a senior, tenured position. Candidates will be expected to establish an active, externally-funded research program and to participate in the department's teaching activities. Senior level appointments will be made to distinguished scientists with significant, funded research programs. Excellent start-up packages and newly renovated laboratory space are available. Application letter with curriculum vitae and names and addresses of three references should be sent to: **Chairman of the Search Committee, Department of Biology, New York University, Room 1009, Main Building, Washington Square, New York, NY 10003.**

NYU encourages applications from women and members of minority groups.

FACULTY POSITION IN BIOLOGY

The Department of Biology at Boston College is seeking an individual with a Ph.D. and at least 2 years of post-doctoral experience for a tenure track position to be filled in the Fall of 1994. Boston College is a university with several separate schools and colleges and over 14,000 students. The Biology Department has an active graduate program with approximately 50 Ph.D. and M.S. students and over 450 undergraduate majors.

The successful candidate will be expected to develop a strong extramural funded research program in an aspect of eukaryotic cellular biology that complements our current research programs in: cellular and molecular biology; neurobiology and physiology; genetics, immunology, developmental and reproductive biology. Boston College is committed to excellence in teaching and the new faculty member will, in addition to teaching in his or her area of expertise, be expected to contribute to our needs in another area such as: cellular biology, introductory biology, biochemistry or molecular evolution.

The Biology Department has filled 8 tenure track positions within the past 10 years, including a Clare Boothe Luce Assistant Professorship, and expects to fill several positions in the next few years. Salary levels, start-up funds and laboratory resources are competitive with other research universities. Application deadline is December 10, 1993; however, early application is recommended since application will be reviewed as received. Applications should include curriculum vitae, publications list and a one page summary of current and future research plans. Applicants should also arrange for three letters of recommendation to be sent to: Search Committee, Department of Biology, Higgins Hall 321, Boston College, Chestnut Hill, MA 02167.

An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

MEETING

Paris Conference on Apoptosis in AIDS and Cancer

December 2 - 3 - 4, 1993 - Senat (Luxembourg Palace), Paris, France

Under the Aegis of :

World Foundation for AIDS Research and Prevention • OTSUKA American Pharmaceutical, Inc • LXR Biotechnology Inc, USA

Conference President
Luc MONTAGNIER, Paris
Conference Co-President
L. David TOMEI, San Francisco,

SCIENTIFIC COMMITTEE

Philip J. BARR (Richmond)
J. John COHEN (Denver)
Frederick 0. COPE (Colombus)
Linda R. GOODING (Atlanta)
Marie-Lise GOUGEON (Paris)
Mauro PIACENTINI (Rome)
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Barbara OSBORNE (USA)
Arthur PARDEE (USA)
Mauro PIACENTINI (Italy)
John REED (USA)
L. David TOMEI (USA)
Eileen WHITE (USA)

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LIST OF SPEAKERS WILL INCLUDE

Jean-Claude AMEISEN (France)
Philip J. BARR (Richmond)
Carl BARRETT (USA)
Dale BREDESEN (USA)
Ralph BUTTYAN (USA)
John CIDLOWSKI (USA)
J. John COHEN (USA)
Amedeo COLUMBANO (ITALY)

PROGRAM

WILL INCLUDE PRESENTATIONS ON :

- **Apoptosis in the pathogenesis of AIDS**
- **Molecular mechanisms of apoptosis and its control**
- **Apoptosis in the immune system**
- **Apoptosis in carcinogenesis and cancer therapeutics**
- **The role of apoptosis in aging**

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Applicants are encouraged to submit abstracts for poster sessions:
Application Deadline : November 10, 1993

Registration Fee - $395.00 (US)
(Includes welcome reception and lunches)

For further Information and Application Forms contact:
MED-EDITION, BP 1215-16 . 75765 Paris Cedex 16
Tel : 33 (1) 45 70 38 62 - Fax: 33 (1) 45 70 30 78

Niagara University

ASSISTANT PROFESSOR OF BIOLOGY

The Department of Biology of Niagara University invites applications for two tenure track research and teaching positions available beginning August 1994. Postdoctoral experience is desirable for both positions.

(1) Developmental Biologist Ph.D. and ability to teach advanced courses in embryology-developmental biology, classical and molecular genetics, and histology.

(2) Microbiologist Ph.D. in Microbiology with ability to teach courses in microbiology, bacteriology, environmental microbiology and immunology.

The Department of Biology is committed to excellence in undergraduate education, and teaching at the introductory and advanced levels is expected. In addition, the candidate is expected to develop an individual research program involving undergraduate students. Start-up funds and departmental resources are available for the successful candidate. Collaboration with local research and industry groups are also encouraged. Salary is competitive, and will be commensurate with the candidate's experience. Application should demonstrate exceptional teaching and research and should include curriculum vitae, three (3) letters of references, and a summary of current and future research plans. Review of applicants will begin on January 3, 1994.

Send to: **Dr. Carol R. Sweeney**
Chairperson
Department of Biology
Niagara University, Box 2032
Niagara University, NY 14109

Assistant/Associate Professor - Agronomist/Weed Management

This is a twelve-month, tenure track, faculty position located at the Southern Experiment Station in Waseca with tenure held in the Department of Agronomy and Plant Genetics, St. Paul. Research will focus on, but is not limited to, cropping system research including weed management systems for Southern Minnesota that have an impact on Cornbelt agriculture. The appointee will be responsible for developing individual project leadership and multidisciplinary investigations examining cultural, biological, mechanical, and chemical control of weeds in sustainable crop production systems. Active advising of graduate students is expected. Ph.D. degree in agronomy or a closely related field with experience in weed science required. Research closely related to production agronomy or pest management with particular emphasis on weed management. Experience and training in conducting field crop agronomic production research directed toward solving crop and weed management problems desired. Demonstrated involvement in technology transfer and on-farm research. Minimum of two years of post-graduate experience desired. Send a letter of application, graduate transcripts, curriculum vita, and a one-page summary of career goals in the context of this position; and have letters of references sent by three referees by December 15, 1993 to: Dr. Gyles W. Randall, Chair, Agronomist Search Committee, University of Minnesota, Southern Experiment Station, 1101 West Elm, Waseca, MN 56093-1926. TEL: (507) 835-3620.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veterans status, or sexual orientation.

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

FACULTY OF MEDICINE
MOLECULAR BIOLOGY

Applications are invited for one, and possibly two, tenure track positions as **Assistant Professor of Molecular Biology** within the Division of Basic Medical Sciences. Applicants should possess a Ph.D. or equivalent and relevant post-doctoral training and will be expected to develop an independent, externally funded research programme. The Division of Basic Medical Sciences consists of approximately 45 scientists with strong research groups in cardiovascular physiology, human genetics, immunology, molecular biology and neuroscience. The molecular biology group has existing strengths in cancer research, virology, human genetics and developmental biology. The modern, well equipped laboratories of the Faculty of Medicine are housed adjacent to the General Hospital in the Health Sciences Centre on the campus of Memorial University.

Applicants should submit their curriculum vitae and a brief statement of research interests and future plans, by **December 15, 1993**, and arrange to have three letters of reference forwarded to:

Dr. R.S. Neuman
Associate Dean of Basic Medial Sciences
Faculty of Medicine
Memorial University of Newfoundland
St. John's, Newfoundland, Canada
A1B 3V6

Memorial University is committed to employment equity. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents in the first instance, but all qualified candidates are encouraged to apply.

MEETINGS

SYMPOSIUM: Pharmaceutical Design: Anti-Sense, Triple Helix, Nucleic Acid Binding Drugs
January 31-February 1, 1994; Hyatt Rickeys, Palo Alto, California

SPEAKERS: F. Arcamone, *Italy*; P. Aristoff, *Upjohn*; D. Boger, *Scripps*; C. Cantor, *Boston University*; D. Cook, *Isis*; W. Denny, *Auckland*; C. Edwards, *Genelabs*; C. Helene, *Paris*; M. Hogan, *Baylor*; L. Hurley, *Texas*; J.S. Lazo, *Pittsburgh*; S.J. Lippard, *MIT*; J.W. Lown, *Edmonton*; P. Miller, *Johns Hopkins*; S. Mirkin, *Illinois*; P. Nielsen, *Copenhagen*; J.J. Rossi, *City of Hope*; D.S. Sigman, *UCLA*; J. Stubbe, *MIT*; Y. Sugiura, *Kyoto*; A.H.J. Wang, *Urbana*; M. Waring, *Cambridge*; G. Zon, *Lynx*. **ABSTRACTS due January 15, 1994. Organizers:** James Larrick, Cynthia Edwards. **Sponsor: Palo Alto Institute of Molecular Medicine; 2462 Wyandotte Street; Mountain View, CA 94043; FAX: 415-694-7717; Telephone: 415-694-4996.**

COURSES AND TRAINING

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

ANNOUNCEMENTS

LEUKEMIA RESEARCH FOUNDATION GRANTS

The Leukemia Research Foundation, Inc. announces funds are available to support research in the field of leukemia. The goal of the grant program is to support new investigators; preference will be given to applicants proposing new lines of investigation. Currently two types of grants are being funded; research grants, and postdoctoral fellowships. Grants and fellowships are for a one-year period, and may be renewable for a second year. **DEADLINE FOR RECEIPT OF COMPLETED GRANT APPLICATIONS IS FEBRUARY 15, 1994. Research Grant Policies**: (1) Eligibility is restricted to investigators who are staff members of a university, hospital, or a non-profit research institute. The applicant must be less than five years beyond the end of training at the time of the proposed starting date of the grant award. (2) Maximum budget request is $35,000. The funds may not be used for salary support of the principal investigator. **Postdoctoral Fellowship Policies**: (1) Maximum budget request is $20,000. The funds usually are used to support the fellow's salary. (2) Eligibility is restricted to postdoctoral trainees with an M.D. or Ph.D. degree. The fellow must have no greater than three years of postdoctoral training (excluding medical residency) at the time of the proposed starting date of the grant award. For further information and applications, contact: **Hollis R. Brownstein, Chairman, Medical Advisory Committee, Leukemia Research Foundation, Inc., 899 Skokie Boulevard, Suite LL14, Northbrook, IL 60062; Telephone: 708-480-1177, FAX: 708-480-1417.**

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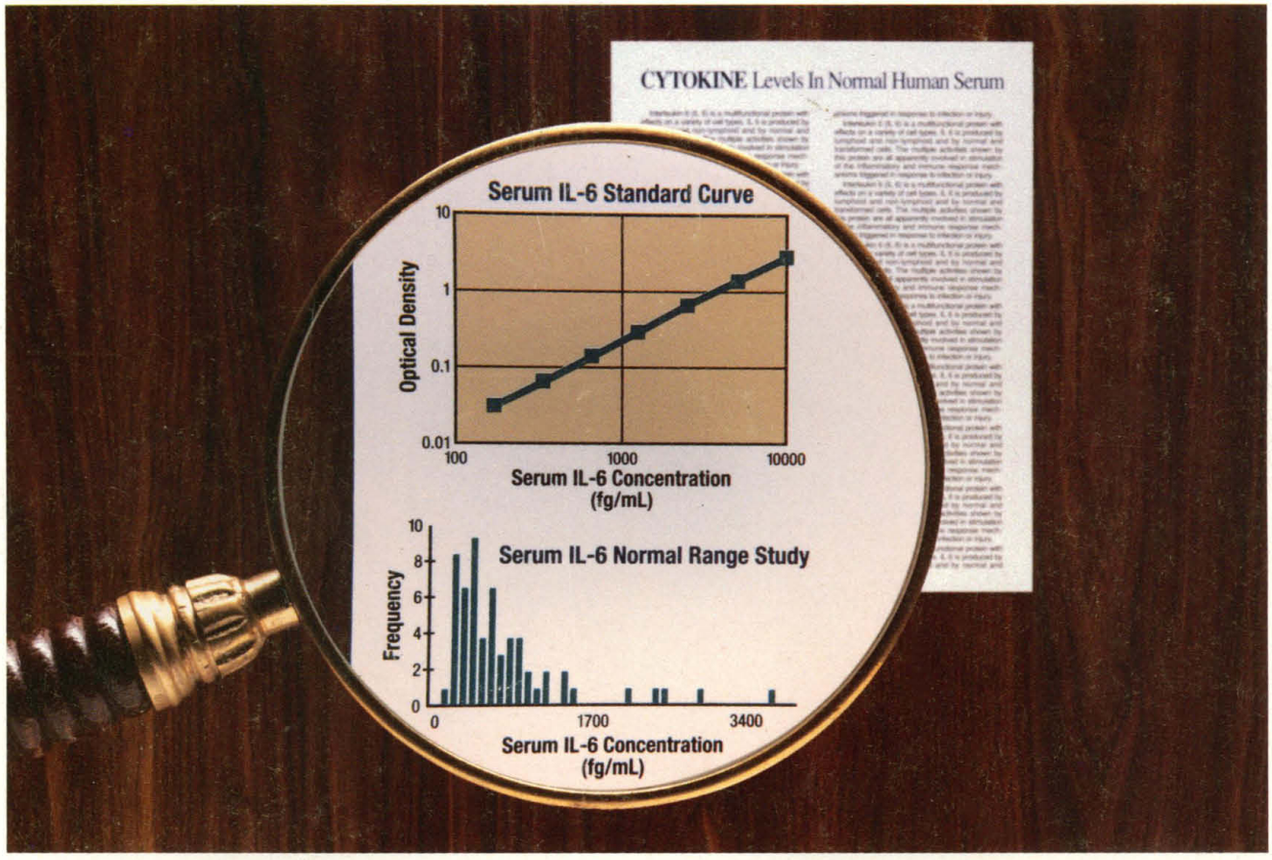

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