

EXPANDED

# 1995 AAAS Annual Meeting and Science Innovation Exposition



UNITY IN DIVERSITY

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February 16-21, 1995  
Atlanta, GA

American  
Association  
for the  
Advancement  
of Science



## Dear Colleague:

For 160 years, the AAAS Annual Meeting has been the preeminent multidisciplinary event for scientists. I have the pleasure of inviting you to attend the 1995 meeting and informing you of a very important change in the meeting. We have consolidated the Science Innovation (SI) meeting with the AAAS Annual Meeting in order to make the former more accessible.

This year's *AAAS Annual Meeting and Science Innovation Exposition* offers exciting new additions and promises to uphold our interdisciplinary tradition. Researchers from every facet of science — medical, environmental, evolutionary, physical, social and technological — will convene to exchange and publicize new knowledge. Over 3,500 of your colleagues will be in Atlanta to share their research advances, explore the synergies between disciplines, and debate critical issues in science policy and education.

The theme for the 1995 meeting — *Unity in Diversity* — sets the tone for a unique blend of symposia, topical and plenary lectures, specialized seminars, and poster presentations. Some symposia highlights include:

■ **BIOLOGICAL AND GENETIC DIVERSITY TRACKS:** Sessions will address such issues as conservation, race and equality, the challenges of emerging diseases, evolutionary biology, transposable elements, and human molecular diversity. See pages 7 and 8 of this program.

■ **SCIENCE INNOVATION:** A series of twenty sessions addressing emerging technologies and applications in science, engineering, and medicine. Topics include nanotechnology, DNA analysis, protein folding, complex networks, computer networks, computer applications, immunology, cell cycle control, signal transduction, the human genome, tissue engineering, gene therapy, plant biotechnology, and drug design and delivery. See page 13 of this program.

■ **OTHER IMPORTANT TRACKS:** Other tracks will examine issues as diverse as education reform, results from the Hubble Space Telescope, the impact of Comet Shoemaker-Levi 9, global sustainability, pollution, health care in the U.S. and Africa, scientific issues in the former Soviet Union, providing equality of opportunity in science and society, science applications, such as neuroimaging and the manipulation of global information data... more information throughout the pages of this program.

■ **IMAGING SEMINAR:** A special seminar on imaging science will be offered beginning February 16. This will address the many technologies, issues, and challenges in this emerging field with a view to applications ranging from the molecular to the stellar. Regular sessions following this seminar will provide greater detail on specific applications, such as neuroimaging and the manipulation of global information data... more information on page 12 of this program.

■ **OF PARTICULAR INTEREST:** Career development seminars; over 100 exhibits of publishers, computer companies, government agencies, and scientific equipment companies; and four days of Employment Exchange services.

Please join us in the exciting city of Atlanta. If you register now, you can take advantage of the discount air fare and hotel rates (see forms on pages 17 and 18). I look forward to seeing you there.

Sincerely,

FRANCISCO J. AYALA  
Program Chair

## AAAS 1995 Annual Meeting Program Committee

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and Howard Hughes Medical Institute

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Institute of Advanced Study

FEBRUARY 16-21, 1995 • MARRIOTT MARQUIS HOTEL • ATLANTA, GA

# 1995 AAAS Annual Meeting and Science Innovation Exposition

# Time Table

FEBRUARY 16 - 21, 1995 • ATLANTA MARRIOTT MARQUIS & HYATT REGENCY ATLANTA

THURSDAY, 16TH	FRIDAY, 17TH	SATURDAY, 18TH	SUNDAY, 19TH	MONDAY, 20TH	TUESDAY, 21ST
<b>Seminar Registration</b> 7:30 A.M. - 9:30 A.M. Marriott Marquis	<b>Meeting Registration</b> 7:30 A.M. - 6:30 P.M. Marriott Marquis	<b>Meeting Registration</b> 7:00 A.M. - 5:00 P.M. Marriott Marquis	<b>Meeting Registration</b> 7:00 A.M. - 5:00 P.M. Marriott Marquis	<b>Meeting Registration</b> 7:00 A.M. - 5:00 P.M. Marriott Marquis	<b>Meeting Registration</b> 7:00 A.M. - 2:00 P.M. Marriott Marquis
	<b>Concurrent Sessions</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis Hyatt Regency See program for details.	<b>Concurrent Sessions</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis Hyatt Regency See program for details.	<b>Concurrent Sessions</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis Hyatt Regency See program for details.	<b>Concurrent Sessions</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis Hyatt Regency See program for details.	<b>Concurrent Sessions</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis Hyatt Regency See program for details.
<b>Imaging Seminar</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis	<b>Imaging Seminar</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis			<b>Science Innovation Sessions</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis	<b>Science Innovation Sessions</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis
<b>Public Science Day</b> 9:00 A.M. - 2:00 P.M. Hyatt Regency	<b>AJAS Oral Presentations</b> 8:30 A.M. - 11:30 A.M. Marriott Marquis	<b>Exhibition</b> 10:00 A.M. - 4:00 P.M. Marriott Marquis	<b>Exhibition</b> 10:00 A.M. - 4:00 P.M. Marriott Marquis	<b>Exhibitions</b> 10:00 A.M. - 3:00 P.M. Marriott Marquis	
	<b>Employment Exchange</b> 11:00 A.M. - 5:00 P.M. Marriott Marquis	<b>Employment Exchange</b> 10:00 A.M. - 6:00 P.M. Marriott Marquis	<b>Employment Exchange</b> 10:00 A.M. - 6:00 P.M. Marriott Marquis	<b>Employment Exchange</b> 10:00 A.M. - 6:00 P.M. Marriott Marquis	<b>Employment Exchange</b> 9:00 A.M. - 1:00 P.M. Marriott Marquis
<b>Field Trip</b> Yerkes Primate Center 12:00 P.M. - 5:00 P.M.		<b>Poster Sessions</b> 10:30 A.M. - 3:30 P.M. Marriott Marquis	<b>Poster Sessions</b> 10:30 A.M. - 3:30 P.M. Marriott Marquis	<b>Poster Sessions</b> 10:30 A.M. - 2:30 P.M. Marriott Marquis	<b>Field Trip</b> Etowah Indian Mounds 12:00 P.M. - 5:00 P.M.
<b>Field Trip</b> Atlanta Botanical Garden 12:30 P.M. - 5:00 P.M.	<b>Student Award Poster Competition</b> 10:30 A.M. - 3:30 P.M. Marriott Marquis				<b>Field Trip</b> Fernbank Museum 12:30 P.M. - 5:00 P.M.
<b>Meeting Registration</b> 1:00 P.M. - 7:00 P.M. Marriott Marquis	<b>Topical Lectures</b> 1:00 P.M. - 2:00 P.M. Marriott Marquis Hyatt Regency See program for details.	<b>Topical Lectures</b> 1:00 P.M. - 2:00 P.M. Marriott Marquis Hyatt Regency See program for details.	<b>Topical Lectures</b> 1:00 P.M. - 2:00 P.M. Marriott Marquis Hyatt Regency See program for details.	<b>Topical Lectures</b> 1:00 P.M. - 2:00 P.M. Marriott Marquis Hyatt Regency See program for details.	<b>Topical Lectures</b> 1:00 P.M. - 2:00 P.M. Marriott Marquis Hyatt Regency See program for details.
<b>Imaging Seminar</b> 2:30 P.M. - 5:30 P.M. Marriott Marquis	<b>Imaging Seminar</b> 2:30 P.M. - 5:30 P.M. Marriott Marquis	<b>Awards Ceremony</b> 1:00 P.M. - 2:00 P.M. Marriott Marquis		<b>Science Innovation Sessions</b> 2:30 P.M. - 5:30 P.M. Marriott Marquis	<b>Science Innovation Sessions</b> 2:30 P.M. - 5:30 P.M. Marriott Marquis
	<b>Concurrent Sessions</b> 2:30 P.M. - 5:30 P.M. Marriott Marquis Hyatt Regency See program for details.	<b>Concurrent Sessions</b> 2:30 P.M. - 5:30 P.M. Marriott Marquis Hyatt Regency See program for details.	<b>Concurrent Sessions</b> 2:30 P.M. - 5:30 P.M. Marriott Marquis Hyatt Regency See program for details.	<b>Concurrent Sessions</b> 2:30 P.M. - 5:30 P.M. Marriott Marquis Hyatt Regency See program for details.	<b>Concurrent Sessions</b> 2:30 P.M. - 5:30 P.M. Marriott Marquis Hyatt Regency See program for details.
<b>Social Hour</b> 5:30 P.M. - 6:30 P.M. Marriott Marquis	<b>Exhibit Grand Opening Reception</b> 5:00 P.M. - 7:00 P.M. 5:00 P.M. - 6:30 P.M. Marriott Marquis				
	<b>AJAS Poster Session</b> 5:00 P.M. - 7:00 P.M. Marriott Marquis				
<b>Keynote Address</b> TBA 6:30 P.M. - 7:30 P.M. Marriott Marquis	<b>Plenary Lecture</b> <i>Edward O. Wilson</i> 6:30 P.M. - 7:30 P.M. Marriott Marquis	<b>President's Lecture</b> <i>Francisco J. Ayala</i> 6:30 P.M. - 7:30 P.M. Marriott Marquis	<b>Plenary Lecture</b> <i>Bruce Babbitt</i> 6:30 P.M. - 7:30 P.M. Marriott Marquis	<b>Plenary Lecture</b> <i>Wallace S. Broecker</i> 6:30 P.M. - 7:30 P.M. Marriott Marquis	
		<b>President's Reception</b> 7:30 P.M. - 8:30 P.M. Marriott Marquis			

# Meeting at a Glance

## TIME SCHEDULE

All A.M. Sessions: 8:30 A.M. - 11:30 A.M.

All P.M. Sessions: 2:30 P.M. - 5:30 P.M.

TRACK	FRIDAY, 17TH	SATURDAY, 18TH	SUNDAY, 19TH	MONDAY, 20TH	TUESDAY, 21ST
<b>Biological Diversity</b>	<b>P.M.</b> Five Ways of Looking at a Tropical Forest	<b>A.M.</b> The National Biological Survey Partnership After One Year <b>P.M.</b> Evolutionary Biology: A Science Matures	<b>A.M./P.M.</b> Biodiversity Science and Policy Issues: Meeting Societal Needs	<b>A.M.</b> Is Race a Legitimate Concept for Science? <b>P.M.</b> Species-ism or Good Genetics: What Should We Do With "Hybrid" Orangutans?	<b>A.M.</b> Instincts to Learn
<b>Building Science Literacy</b>	<b>A.M./P.M.</b> The Public, the Media, and Scientific Controversies	<b>A.M.</b> Shifting Paradigms, Changing Perceptions In Mathematics, Science, and Engineering Education <b>P.M.</b> Moving Towards A Quantitatively Literate Society	<b>A.M.</b> Who Will Do Science?: Educating the Next Generation <b>P.M.</b> Mirror, Mirror: Reflections on Media Images of Science and Scientists	<b>A.M.</b> What Works: Successful Programs for Women in the Mathematical Sciences	
<b>The Changing Environment</b>	<b>A.M.</b> Nuclear and Chemical Contamination in Russian and Kazakhstan: Management and Prevention Strategies <b>P.M.</b> Innovative Environmental Technologies	<b>A.M.</b> Environmental Remediation: How Much Can/Should We Clean Up? <b>P.M.</b> Ecosystems and Landscapes: Describing and Valuing Whole Ecosystems	<b>A.M.</b> Nuclear and Chemical Contamination in Russian and Kazakhstan: Management and Prevention Strategies <b>A.M./P.M.</b> Environmental Pollution in the Southeastern U.S.: Is Sustainable Development Possible?	<b>A.M.</b> Nuclear and Chemical Contamination in Russian and Kazakhstan: Management and Prevention Strategies <b>P.M.</b> Earthquake Potential in the Central and Eastern U.S.	
<b>Genetic Diversity</b>	<b>P.M.</b> Genetics and Conservation Biology in the Southeastern U.S.	<b>A.M.</b> ● Evolution and Consequences of Transposable Elements <b>P.M.</b> ● Human Molecular Diversity	<b>A.M.</b> Genetic Discrimination and Public Policy <b>P.M.</b> Uses and Abuses of Genetics in Society	<b>A.M./P.M.</b> Genetic Diversity, Evolution and the Control of Infectious Disease	<b>A.M.</b> ● Diversity and Molecular Genetics In Animals: Science and Policy Issues <b>A.M./P.M.</b> Emerging Microbial Pathogens
<b>Global Change and Sustainability</b>	<b>P.M.</b> Global Population: Environmental, Technological and Economic Factors <b>P.M.</b> Environmental Research for Better Decisions: Are New Federal Institutions Needed?	<b>A.M.</b> Sudden Change: Climate, Sea Level <b>A.M.</b> Sustainable Agriculture from Seed to Nation-State <b>P.M.</b> Technological Advances in Earth Resources Information Systems	<b>A.M./P.M.</b> Interface Disciplines: The Mismatch Between Traditional Disciplines and Global Problems <b>A.M.</b> ● Contemporary Scientific Problems Involving Innovative Time-series Methods <b>P.M.</b> ● Mathematical Successes in Image Processing	<b>A.M.</b> Impact Assessment for Sustainable Development <b>P.M.</b> Sustainable Development: Scientifically Based Solutions or Wishful Thinking? <b>P.M.</b> Gas Hydrate in Ocean Sediments—Largest Methane Reservoir on Earth?	<b>A.M.</b> Environmentally Threatened Regions: Exploring the Human Dimensions of Global Change <b>A.M./P.M.</b> Sediment Yields: Natural vs Human Controls
<b>History, Prehistory, and Language</b>	<b>A.M.</b> Bilingualism: When Is the Best Age to Learn a Second Language?	<b>A.M.</b> Endangered Languages <b>P.M.</b> Linguistics Science and Language Technology: Machines and Human Language	<b>A.M.</b> Structures of Human Language: Some Batons for Cognitive Science and Neuroscience <b>P.M.</b> The Legacy of Alan Turing	<b>A.M.</b> Migration and Diffusion vs Indigenous Cultural Development in Prehistory <b>P.M.</b> Global Climate Change and Agricultural Origins	<b>A.M.</b> Southeastern Archaeology: Current Directions in Prehistoric and Historic Research <b>P.M.</b> Science and Archaeology: The Aegean Interface
<b>Industry In a Global Economy</b>	<b>P.M.</b> The Virtual R&D Organization of the Future: Fact or Fancy?	<b>A.M./P.M.</b> Industry-University-Government Collaboration in Advanced Materials Processing and Manufacturing	<b>A.M./P.M.</b> Government-Industry Partnerships in Research: Making Them Work	<b>A.M.</b> University-Industry Cooperation: Results of Empirical Research <b>P.M.</b> Downsizing, Restructuring and Outsourcing: Impacts on Long-term Industrial R&D	<b>A.M.</b> Basic Science and Industrial Competitiveness <b>P.M.</b> An Industrial Ecology View of the Society-Environment System
<b>Information Age</b>	<b>P.M.</b> Towards Public Safety and Industrial Competitiveness in Federal Software Standards	<b>A.M.</b> Potholes Along the Information Superhighway? <b>P.M.</b> The Information Superhighway: Policy at the State Level	<b>A.M./P.M.</b> ● Digital Libraries	<b>P.M.</b> Information Security: Principles and Public Policy	<b>A.M./P.M.</b> Privacy and Encryption in an Electronic Environment <b>P.M.</b> The U.S. Semiconductor Industry: Evolving Technology Strategies for Competing
<b>Physics, Chemistry, Geology and Astronomy</b>	<b>A.M.</b> What is the Future for the Physical and Mathematical Sciences?	<b>A.M.</b> ● Magnetic Resonance Functional Neuroimaging in Basic Science Research <b>A.M./P.M.</b> Frontiers of the Physical Sciences <b>A.M./P.M.</b> A World Without Chlorine <b>P.M.</b> ● Micro-miniaturization of Sensors and Electronic Devices	<b>A.M.</b> ● Neutrons for Basic and Applied Research <b>A.M.</b> Comet Shoemaker—Levy 9's Collision with Jupiter <b>P.M.</b> Recent Progress Toward Controlled Thermonuclear Power <b>P.M.</b> Stellar Companions: Where are the Planets? <b>P.M.</b> Science, Technology, and Materials for Chronic Implants: Public Policy Issues	<b>A.M./P.M.</b> A Year of Discovery With the Repaired Hubble Space Telescope	<b>A.M.</b> ● Centennial of the Discovery of X-Rays <b>A.M.</b> Chemical Communication: Chemical Signaling in the Planet Kingdom <b>P.M.</b> X-Rays: A Centennial Celebration <b>P.M.</b> Chemical Communication Pheromones: Are They Useful? What Do They Do?

# Meeting at a Glance

● = Indicates sessions that may also be of interest to Science Innovation attendees

NOTE: All information as of 9/28/94. Any changes, additions or deletions received after that date will be included in the next printing of this program.

## TIME SCHEDULE

All A.M. Sessions: 8:30 A.M. - 11:30 A.M.

All P.M. Sessions: 2:30 P.M. - 5:30 P.M.

TRACK	FRIDAY, 17TH	SATURDAY, 18TH	SUNDAY, 19TH	MONDAY, 20TH	TUESDAY, 21ST
<b>Science and Society</b>	<b>A.M./P.M.</b> Women: Science, Technology and Development <b>A.M.</b> Retaining Women in Science—The Role of Evaluation in Career Directions <b>P.M.</b> Dimensions of Public Opinion, Beliefs and Reasoning about Science	<b>A.M.</b> Scientific Methods for Improving United Nations Human Rights Compliance Mechanisms <b>A.M.</b> Why a Homicide Epidemic Now—and What Can Be Done? <b>P.M.</b> The Nature of Homicide in America and Implications for Policy <b>P.M.</b> Scientific Methods for Promoting Human Rights Observance in Ethiopia	<b>A.M.</b> Racial Diversity in the Sciences: Are We Reaching Our Goals? <b>A.M.</b> Threats to Academic Freedom in the U.S. and Abroad <b>P.M.</b> Challenges to Human Rights from Developments in the Health Sciences	<b>A.M.</b> Ethnopediatrics: Cultural Factors in Child Survival and Growth <b>P.M.</b> Adoption: Biologically vs Environmentally Determined Bonds	<b>A.M.</b> Contributions of Women's Colleges to Science and Engineering <b>P.M.</b> Strengthening the Pipeline Through Educational Diversity
<b>Public Health and Medicine</b>	<b>A.M.</b> Oral Transmission of AIDS: Fact or Fiction? <b>P.M.</b> Cognitive, Interpersonal, and Societal Influences on Medical Decision Making	<b>A.M./P.M.</b> Essential National Health Research: Lessons from African Successes	<b>A.M.</b> Health Reform and Health Technology <b>P.M.</b> Can it Work? Does it Work? Differing Expectations for Clinical Trials	<b>A.M.</b> Research Issues and Program Activities in Telemedicine <b>P.M.</b> Risk Assessment for Unavoidable Exposure: Public Policy and Public Relations	
<b>Reforming Science Education</b>		<b>A.M.</b> Standards-based Reform: Implications for K-12 Science Education <b>P.M.</b> Standards-based Reform: Implications for Undergraduate Science Education	<b>A.M.</b> Responsibility of Scientists for Quality and Diversity in Instructional Materials <b>P.M.</b> Partnership Efforts for Systemic Reform	<b>A.M.</b> Improving Undergraduate Education: Issues, Options, and Priorities <b>P.M.</b> Teaching Math: Lessons from the Russian Experience <b>P.M.</b> The Mouth as a Laboratory	<b>A.M.</b> The Origins of Scientific and Mathematical Literacy: Sources of Developmental and System Change <b>P.M.</b> Successful Mathematics-based Intervention Programs
<b>The Diversity of Science</b>	<b>A.M.</b> Scientific Atlanta—An Excursion Through Astronomy, Biology, Chemistry, Physics <b>A.M.</b> Mathematics and Science of Sports <b>P.M.</b> Georgia State-wide Science and Technology Initiatives: an Overview	<b>A.M.</b> Youth Meets the Masters <b>P.M.</b> Science is Fun!  <b>Friday, 17th (Continued)</b> <b>P.M.</b> Psychobiological Aspects of Performance and Health in Female Athletes	<b>A.M./P.M.</b> Science for the Naked Eye, XXII	<b>A.M.</b> Mathematics and Music: Recent Developments in the Theory of Musical Perception	
<b>Science, Engineering, and Technology Policy</b>	<b>A.M.</b> Research and the Pursuit of National Goals <b>A.M.</b> What is the Future for the Physical and Mathematical Sciences <b>A.M.</b> Challenges to the Nuclear Nonproliferation Regime in the Early Nineties <b>P.M.</b> The NPT Extension Conf. <b>P.M.</b> Where are the Great Works of Science and Technology Policy Analysis?: A Roundtable	<b>A.M.</b> Toward Spending for Scientific Programs <b>P.M.</b> The National Forum on Science and Technology Goals <b>P.M.</b> Scientific Freedom and Responsibility: Twentieth Anniversary Reflections	<b>A.M.</b> Academic Engineering Research: What is it? Where is it Going? <b>A.M.</b> ● Changing the Terms of the Biotechnology Debate <b>P.M.</b> Policy Issues in Superfund Reauthorization	<b>A.M.</b> Grappling With Gridlock: Do We Need a New Paradigm for Managing Technological Risks? <b>P.M.</b> Innovation vs Accountability: Priority Setting for Environmental and Agricultural Research	<b>A.M./P.M.</b> Return to the Frontier: The Vannevar Bush Report, Now and Then <b>A.M.</b> Research Ethics: We're All Accountable, So Who's Accounting?
<b>Technology, Food and Natural Resources</b>	<b>P.M.</b> Recent Advances in Fish Culture and Understanding of Aquatic Systems	<b>A.M.</b> Recombinant DNA and Food: Societal and International Issues <b>P.M.</b> The rBST Controversy: Science, Politics, and New Patterns of Technological Change in Agriculture	<b>A.M.</b> Implications of Reduced Pesticide Registrations and Use <b>P.M.</b> The Carrying Capacity of Planet Earth	<b>A.M.</b> Key Forces Impacting Southeastern Agriculture and Natural Resource Management	<b>A.M./P.M.</b> ● Positioning Agriculture for the 21st Century
<b>Science Innovation</b>				<b>A.M.</b> Human Genome: Technologies and Tools <b>A.M.</b> Scientific Collaboration and the New Electronic Toolbox: Groupware and Telecommunications <b>A.M.</b> Genetic Manipulation of Plant Development <b>A.M.</b> Nanotechnology: Biological Machines <b>A.M.</b> Drug Design <b>P.M.</b> Nanotechnology and Biomolecular Electronics <b>P.M.</b> Human Genome: Applications <b>P.M.</b> Engineering of Resistance in Plants <b>P.M.</b> Protein Folding <b>P.M.</b> Targeted Delivery of Drugs and Genes	<b>A.M.</b> Immunology: Mechanisms <b>A.M.</b> Tissue Engineering: Basic Research <b>A.M.</b> Signal Transduction <b>A.M.</b> DNA Analysis <b>A.M.</b> Gene Therapy I: Gene Transfer Vectors <b>P.M.</b> Immunology: Clinical Applications <b>P.M.</b> Tissue Engineering: Industrial Applications <b>P.M.</b> Gene Therapy II: Disease Applications <b>P.M.</b> Networks of Chemical Interactions <b>P.M.</b> Cell Cycle Control
<b>SEMINAR</b>	<b>Thursday, 16th and Friday, 17th</b> <b>A.M./P.M. - Fundamental Issues in Imaging Science</b>				

# Plenary and Topical Lectures

## PLENARY LECTURES

6:30-7:30 PM

FRIDAY, FEBRUARY 17

Edward O. Wilson, Harvard Univ

### President's Lecture:

SATURDAY, FEBRUARY 18

Francisco J. Ayala, Univ of California-Irvine

SUNDAY, FEBRUARY 19TH

Bruce Babbitt\*, U.S. Secretary of the Interior

MONDAY, FEBRUARY 20

Wallace S. Broecker, Lamont-Doherty Earth Observatory



## TOPICAL LECTURES

1:00-2:00 PM

FRIDAY, FEBRUARY 17, 1995

### Integrated Ecological Economic Modeling and Adaptive Management of Complex Systems

Robert Costanza, Maryland Int'l Inst for Ecological Economics

### The Engineer's Role in Sustainable Development

Henry J. Hatch, Law Companies Group, Inc.

### Chemical and Biological Weapons

Matt Meselson\*, Harvard Univ

### Sarton Lecture: Darwinism Comes to America: A Reappraisal of Scientific Responses

Ronald L. Numbers, Univ of Wisconsin-Madison

### The Science & Technology Component of the 4th World Conference on Women

Gertrude Mongella, Secretary General, 4th World Conference on Women

SATURDAY, FEBRUARY 18, 1995

### Neutrons: Probing the Structures and Dynamics of Complex Materials

Robert J. Birgeneau, Massachusetts Inst of Tech

### The Impact of Recombinant DNA on Agriculture and Society

George Brown, U.S. Congress

### The Loss of Linguistic Diversity, Its Cost for Linguistic Science

Kenneth Hale, Massachusetts Inst of Tech

### Youth Violence and Violence Prevention in the 1990s

Janet Reno\*, U.S. Attorney General

SUNDAY, FEBRUARY 19, 1995

### Education Reform

Bruce Alberts\*, Natl Academy of Sciences

### New Directions in Engineering Education

Eleanor Baum, The Cooper Union

### Genetics

L.L. Cavalli-Sforza\*, Stanford Univ

### Cryptanalysis in World War II - Working with Alan Turing

Peter Hilton, SUNY-Binghamton

### The WHO Global AIDS Program

Jonathan M. Mann\*, Harvard Univ

### High Resolution Astronomy: Seeing the Unseen

Harold A. McAlister, Georgia State Univ

### Overview of the U.S. Fusion Program

Marshall Rosenbluth, Univ of California-San Diego

### 1995 McGovern Award Lecture on the Behavioral Sciences

TBA

MONDAY, FEBRUARY 20, 1995

### Benefits of Long-Term R&D to Industry and National Well-Being

Mary Good, U.S. Dept of Commerce

### How Much Land Can Ten Billion People spare for Nature?

Paul Waggoner, Conn Agricultural Exp Station

### Telemedicine — A New Health Care Delivery System

Jay Sanders, Medical College of Georgia

### Science Innovation

Mary-Claire King\*, Univ of California-Berkeley

### The Mouth as a Mirror

Harald Loe, Natl Inst of Dental Research

### Science and People of Color

Walter Massey, Univ of California

### Can Integrated Assessment Link Science and Policy for a Sustainable Future?

Robert S. Turner, Oak Ridge Natl Lab

TUESDAY, FEBRUARY 21, 1995

### Precision Farming: The Next Revolution in Agricultural Management?

Pierre C. Robert, Univ of Minnesota

### Trends in the Numbers of S&E Degree Recipients

Jadwiga Sebrechts\*, Women's College Coalition

### Pheromones

Ring Carde, Univ of Massachusetts

\*Invited, not yet confirmed

All information is as of 9/28/94. Changes, additions or deletions received after that date will be included in the next printing of this program.

PRELIMINARY

# Program

FEBRUARY 16-21, 1995 • MARRIOTT MARQUIS HOTEL • ATLANTA, GA

## BIOLOGICAL DIVERSITY

AM = 8:30 AM - 11:30 AM  
PM = 2:30 PM - 5:30 PM

### Five Ways of Looking at a Tropical Forest

FRIDAY PM  
Org by James D. Nations, Conservation International, and Priscilla Reining, Univ of Florida

### The National Biological Survey Partnership After One Year

SATURDAY AM  
Org by John D. Buffington, U.S. Dept of the Interior, and H. Ronald Pulliam, Natl Biological Survey

### Evolutionary Biology: A Science Matures

SATURDAY PM  
Org by Janet L. Leonard, Oregon State Univ

### Biodiversity Science and Policy Issues: Meeting Societal Needs

SUNDAY AM, PM  
Org by Joel Cracraft, American Museum of Natural History, and Marvalee H. Wake, Univ of California-Berkeley

### Is Race a Legitimate Concept for Science?

MONDAY AM  
Org by John Ladd, Brown Univ, and Jane Maienschein, Arizona State Univ

### Species-ism or Good Genetics: What Should We Do With "Hybrid" Orangutans?

MONDAY PM  
Org by H. Lyn Miles, Univ of Tennessee-Chattanooga, and Ethel Tobach, American Museum Natural History

### Instincts to Learn

TUESDAY AM  
Org by C.R. Gallistel, Univ of California-Los Angeles

## BUILDING SCIENCE LITERACY

AM = 8:30 AM - 11:30 AM  
PM = 2:30 PM - 5:30 PM

### The Public, the Media, and Scientific Controversies

FRIDAY AM, PM  
Org by Bruce V. Lewenstein, Cornell Univ, and Gerry Wheeler, AAAS

### Shifting Paradigms, Changing Perceptions in Mathematics, Science, and Engineering Education

SATURDAY AM  
Org by George Campbell, National Action Council for Minorities in Engineering, Inc.

### Moving Towards a Quantitatively Literate Society

SATURDAY PM  
Org by Barbara Bailar, American Statistical Association

### Who Will Do Science?: Educating the Next Generation

SUNDAY AM  
Org by Alan Fechter, National Research Council, and Willie Pearson, Wake Forest Univ

### Mirror, Mirror: Reflections on Media Images of Science and Scientists

SUNDAY PM  
Org by Jocelyn Steinke, Ithaca College, and Marilee Long, Colorado State Univ

### What Works: Successful Programs for Women in the Mathematical Sciences

MONDAY AM  
Org by Rhonda J. Hughes, Bryn Mawr College, and Cora Sadosky, Howard Univ

## THE CHANGING ENVIRONMENT

AM = 8:30 AM - 11:30 AM  
PM = 2:30 PM - 5:30 PM

### Nuclear and Chemical Contaminations in Russia and Kazakhstan: Management and Prevention Strategies

FRIDAY AM, SUNDAY AM, MONDAY AM  
Org by Elizabeth J. Kirk, AAAS, and Daniel F. MacDonald, The Potomac Foundation

### Innovative Environmental Technologies

FRIDAY PM  
Org by Daphne Kamely, U.S. Dept of Defense

### Environmental Remediation: How Much Can/Should We Clean Up?

SATURDAY AM  
Org by William F. Isherwood, Lawrence Livermore Natl Lab

### Ecosystems and Landscapes: Describing and Valuing Whole Ecosystems

SATURDAY PM  
Org by Bryan G. Norton, Georgia Tech, and Michael A. Toman, Resources for the Future



See  
Science  
Innovation  
Sessions  
on page 13.

All information is as of 9/28/94.  
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printing of this program.

**Environmental Pollution in the Southeastern U.S.: Is Sustainable Development Possible?**

SUNDAY AM, PM

Org by William Chameides, Georgia Tech, and Richard T. Barber, Duke Univ

**Earthquake Potential in the Central and Eastern U.S.**

MONDAY PM

Org by Eugene S. Schweig, Univ of Memphis

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**GENETIC DIVERSITY**

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AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

**Genetics and Conservation Biology in the Southeastern United States**

FRIDAY PM

Org by John C. Avise, Univ of Georgia

**SI 95 Evolution and Consequences of Transposable Elements**

SATURDAY AM

Org by John F. McDonald, Univ of Georgia

**SI 95 Human Molecular Diversity**

SATURDAY PM

Org by Jan Klein, Max-Planck Inst for Biology, and Francisco J. Ayala, Univ of California-Irvine

**Genetic Discrimination and Public Policy**

SUNDAY AM

Org by Arthur Falek, Emory Univ School of Medicine

**Uses and Abuses of Genetics in Society**

SUNDAY PM

Org by Jerry Hirsch, Univ of Illinois

**Genetic Diversity, Evolution, and the Control of Infectious Disease**

MONDAY AM, PM

Org by Bruce Levin, Emory Univ, and George J. Armelagos, Emory Univ

**SI 95 Diversity and Molecular Genetics in Animals: Science and Policy Issues**

TUESDAY AM

Org by Theron S. Rumsey, U.S. Dept of Agriculture-ARS, and Robert G. Zimbelman, American Society of Animal Science

**Emerging Microbial Pathogens**

TUESDAY AM, PM

Org by Richard M. Krause, Natl Insts of Health

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**GLOBAL CHANGE AND SUSTAINABILITY**

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AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

**Global Population: Environmental, Technological and Economic Factors**

FRIDAY PM

Org by Virginia Abernethy, Vanderbilt Univ, and David Pimentel, Cornell Univ

**Environmental Research for Better Decisions: Are New Federal Institutions Needed?**

FRIDAY PM

Org by David Blockstein, Committee for Natl Inst for the Environment

**Sudden Change: Climate, Sea Level**

SATURDAY AM

Org by William F. Tanner, Florida State Univ

**Sustainable Agriculture from Seed to Nation-State**

SATURDAY AM

Org by Lawrence Busch, Michigan State Univ, and William B. Lacy, Pennsylvania State Univ

**Technological Advances in Earth Resources Information Systems**

SATURDAY PM

Org by Stan Morain, Univ of New Mexico

**Interface Disciplines: The Mismatch Between Traditional Disciplines and Global Problems**

SUNDAY AM, PM

Org by Eugene P. Odum, Univ of Georgia, and Frank B. Golley, Univ of Georgia

**SI 95 Contemporary Scientific Problems Involving Innovative Time-series Methods**

SUNDAY AM

Org by David J. Thomson, AT&T Bell Labs

**SI 95 Mathematical Successes in Image Processing**

SUNDAY PM

Org by Christopher Heil, Georgia Tech, and M. Beth Ruskai, Univ of Massachusetts

**Impact Assessment for Sustainable Development**

MONDAY AM

Org by Alan L. Porter, Georgia Tech

**Sustainable Development: Scientifically Based Solutions or Wishful Thinking?**

MONDAY PM

Org by Upton Hatch, Auburn Univ, and Marilyn Swisher, Univ of Florida

**Gas Hydrate in Ocean Sediments - Largest Methane Reservoir on Earth?**

MONDAY PM

Org by William P. Dillon, U.S. Geological Survey, and Keith Kvenvolden, U.S. Geological Survey

**Environmentally Threatened Regions: Exploring the Human Dimensions of Global Change**

TUESDAY AM

Org by Roger E. Kasperson, Clark Univ

**Sediment Yields: Natural vs Human Controls**

TUESDAY AM, PM

Org by John Shroder, Univ of Nebraska

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**HISTORY, PREHISTORY, AND LANGUAGE**

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AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

**Bilingualism: When is the Best Age to Learn a Second Language?**

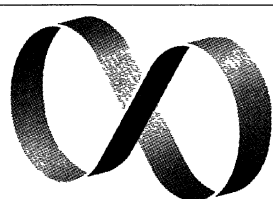
FRIDAY AM

Org by Sharon Goldsmith, American Speech-Language-Hearing Association, and Grace Yeni-Komshian, Univ of Maryland

**Endangered Languages**

SATURDAY AM

Org by William J. Poser, Stanford Univ



**See  
Imaging  
Seminar  
on page 12.**

**SI 95** Indicates sessions that may also be of interest to Science Innovation attendees.



**Linguistics Science and Language Technology: Machines and Human Language**

SATURDAY PM

Org by Stephen R. Anderson, Johns Hopkins Univ, and Judith L. Klavans

**Structures of Human Language: Some Batons for Cognitive Science and Neuroscience**

SUNDAY AM

Org by David Pesetsky, Massachusetts Inst of Tech, and Richard S. Kayne, CUNY Graduate Center

**The Legacy of Alan Turing**

SUNDAY PM

Org by Warren Page, CUNY, Edward Manier, Univ of Notre Dame, and Marion B. Pour-El, Univ of Minnesota

**Migration and Diffusion versus Indigenous Cultural Development in Prehistory**

MONDAY AM

Org by Mark A. Blumler, SUNY-Binghamton, and Stephen C. Jett, Univ of California-Davis

**Global Climate Change and Agricultural Origins**

MONDAY PM

Org by Mark A. Blumler, SUNY-Binghamton

**Southeastern Archaeology: Current Directions in Prehistoric and Historic Research**

TUESDAY AM

Org by David G. Anderson, Natl Park Service

**Science and Archaeology: The Aegean Interface**

TUESDAY PM

Org by Norman Herz, Univ of Georgia

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**INDUSTRY IN A GLOBAL ECONOMY**

AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

**The Virtual R&D Organization of the Future: Fact or Fancy?**

FRIDAY PM

Org by Theodore W. Schlie, Lehigh Univ

**Industry-University-Government Collaboration in Advanced Materials Processing and Manufacturing**

SATURDAY AM, PM

Org by Jay Narayan, North Carolina State Univ, and Bill R. Appleton, Oak Ridge Natl Lab

**Government-Industry Partnerships in Research: Making Them Work**

SUNDAY AM, PM

Org by Christopher T. Hill, George Mason Univ, and J. David Roessner, Georgia Tech

**University-Industry Cooperation: Results of Empirical Research**

MONDAY AM

Org by Leonard L. Lederman, Natl Science Foundation

**Downsizing, Restructuring and Outsourcing: Impacts on Long Term Industrial R&D**

MONDAY PM

Org by A.H. Rubenstein, Northwestern Univ, and Mary Ellen Mogee, Mogee Research & Analysis Assoc

**Basic Science and Industrial Competitiveness**

TUESDAY AM

Org by Sokrates T. Pantelides, Vanderbilt Univ

**An Industrial Ecology View of the Society-Environment System**

TUESDAY PM

Org by William M. Stigliani, Int'l Inst for Applied Systems Analysis

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**INFORMATION AGE**

AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

**Towards Public Safety and Industrial Competitiveness in Federal Software Standards**

FRIDAY PM

Org by Jesse H. Poore, Univ of Tennessee, and Carmen J. Trammell, Univ of Tennessee

**Potholes Along the Information Superhighway?**

SATURDAY AM

Org by Barbara Simons, IBM Santa Teresa Lab

**The Information Superhighway: Policy at the State Level**

SATURDAY PM

Org by William H. Read, Georgia Tech

**SI 95 Digital Libraries**

SUNDAY AM, PM

Org by Clifford Lynch, Univ of California-Oakland, and Toni Carbo Bearman, Univ of Pittsburgh

**Information Security: Principles and Public Policy**

MONDAY PM

Org by Joan Feigenbaum, AT&T Bell Laboratories

**Privacy and Encryption in an Electronic Environment**

TUESDAY AM, PM

Org by Alexander Fowler, AAAS, and Caroline Whitbeck, Massachusetts Inst of Tech

**The U.S. Semiconductor Industry: Evolving Technology Strategies for Competing**

TUESDAY PM

Org by William G. Howard, and Ernest S. Kuh, Univ of California-Berkeley

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**PHYSICS, CHEMISTRY, GEOLOGY AND ASTRONOMY**

AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

**What is the Future for the Physical and Mathematical Sciences?**

FRIDAY AM

Org by Al Teich, AAAS

**SI 95 Magnetic Resonance Functional Neuroimaging in Basic Science Research**

SATURDAY AM

Org by Nicholas Lange, NINDS/Natl Insts of Health

**Frontiers of the Physical Sciences**

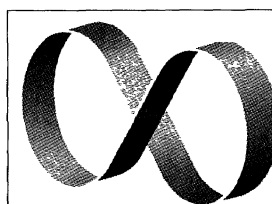
SATURDAY AM, PM

Org by Warren Page, CUNY

**A World Without Chlorine**

SATURDAY AM, PM

Org by Robert W. Parry, Univ of Utah



**See  
Employment  
Exchange  
Information  
on page 15.**

**SI 95** Micro-miniaturization of Sensors and Electronic Devices

SATURDAY PM  
Org by Arnauld E. Nicogossian, NASA HQ

**SI 95** Neutrons for Basic and Applied Research

SUNDAY AM  
Org by Alexander Zucker, Oak Ridge Natl Lab

**Comet Shoemaker-Levy 9's Collision With Jupiter**

SUNDAY AM  
Org by Michael A'Hearn, Univ of Maryland, and Lucy-Ann McFadden, Univ of Maryland

**Recent Progress Toward Controlled Thermonuclear Power**

SUNDAY PM  
Org by Michael D. Crisp, U.S. Dept of Energy

**Stellar Companions: Where Are the Planets?**

SUNDAY PM  
Org by David W. Latham, Ctr for Astrophysics, and Harold A. McAlister, Georgia State Univ

**Science, Technology, and Materials for Chronic Implants: Public Policy Issues**

SUNDAY PM  
Org by Pierre Galletti, Brown Univ

**A Year of Discovery With the Repaired Hubble Space Telescope**

MONDAY AM, PM  
Org by Stephen P. Maran, NASA/Goddard Space Flight Ctr, and Anne L. Kinney, Space Telescope Science Inst

**SI 95** Centennial of the Discovery of X-Rays

TUESDAY AM  
Org by Owen Gingerich, Harvard-Smithsonian Ctr for Astrophysics

**Chemical Communication: Chemical Signaling in the Plant Kingdom**

TUESDAY AM  
Org by Ian Baldwin, SUNY-Buffalo, and Michael Marletta, Univ of Michigan

**X-Rays: A Centennial Celebration**

TUESDAY PM  
Org by Saul Krasner, U.S. Coast Guard Academy

**Chemical Communication Pheromones: Are They Useful? What Do They Do?**

TUESDAY PM  
Org by A. Cam Oehlschlager, Simon Fraser Univ, and John T. Trumble, Univ of California-Riverside

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**SCIENCE AND SOCIETY**

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AM = 8:30 AM - 11:30 AM  
PM = 2:30 PM - 5:30 PM

**Women: Science, Technology, and Development**

FRIDAY AM/PM  
Org by Linda Thompson, AAAS

**Retaining Women in Science — The Role of Evaluation in Career Directions**

FRIDAY AM  
Org by Elizabeth S. Ivey, Macalester College

**Dimensions of Public Opinion Beliefs and Reasoning About Science**

FRIDAY PM  
Org by Susan Losh, Florida State Univ

**Scientific Methods for Improving United Nations Human Rights Compliance Mechanisms**

SATURDAY AM  
Org by Karin Ryan, Emory Univ

**Why a Homicide Epidemic Now — and What Can be Done?**

SATURDAY AM  
Org by Roland Chilton, Univ of Massachusetts-Amherst

**The Nature of Homicide in America and Implications for Policy**

SATURDAY PM  
Org by Roland J. Chilton, Univ of Massachusetts-Amherst, and Pamela Lattimore, Natl Inst of Justice

**Scientific Methods for Promoting Human Rights Observance in Ethiopia**

SATURDAY PM  
Org by Karin Ryan, Emory Univ

**Racial Diversity in the Sciences: Are We Reaching Our Goals?**

SUNDAY AM  
Org by James H. Wyche, Brown Univ

**Threats to Academic Freedom in the U.S. and Abroad**

SUNDAY AM  
Org by Morton Sklar, AAAS

**Challenges to Human Rights from Developments in the Health Sciences**

SUNDAY PM  
Org by Audrey R. Chapman, AAAS, and Marian Gray Secundy, Howard Univ

**Ethnopediatrics: Cultural Factors in Child Survival and Growth**

MONDAY AM  
Org by Carol M. Worthman, Emory Univ

**Adoption: Biologically vs Environmentally Determined Bonds**

MONDAY PM  
Org by Thomas J. Tighe, Univ of Connecticut, and Bert S. Moore, Univ of Texas-Dallas

**Contributions of Women's Colleges to Science and Engineering**

TUESDAY AM  
Org by Linda Skidmore, Natl Research Council, and Nancy Cantor, Princeton Univ

**Strengthening the Pipeline Through Educational Diversity**

TUESDAY PM  
Org by Linda Skidmore, Natl Research Council, and George Campbell, Natl Action Council for Minorities in Engineering, Inc.

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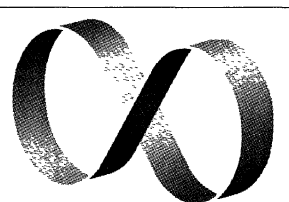
**PUBLIC HEALTH AND MEDICINE**

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AM = 8:30 AM - 11:30 AM  
PM = 2:30 PM - 5:30 PM

**Oral Transmission of AIDS: Fact or Fiction?**

FRIDAY AM  
Org by Marc W. Heft, Univ of Florida, and Philip C. Fox, Natl Inst of Dental Research



**See  
listing  
of recent  
Exhibitors  
on page 16.**

**SI 95** Indicates sessions that may also be of interest to Science Innovation attendees.

### **Cognitive, Interpersonal, and Societal Influences on Medical Decision Making**

FRIDAY PM

Org by Alice M. Isen, Cornell Univ, and Bert S. Moore, Univ of Texas-Dallas

### **Essential National Health Research: Lessons From African Successes**

SATURDAY AM, PM

Org by Amy Auerbacher Gimbel, AAAS, and Yvo Nuyens, Council on Health Research for Development

### **Health Reform and Health Technology**

SUNDAY AM

Org by Clifford Goodman

### **Can it Work? Does It Work? Differing Expectations for Clinical Trials**

SUNDAY PM

Org by Mary Foulkes, Natl Inst of Allergy and Infectious Diseases

### **Research Issues and Program Activities in Telemedicine**

MONDAY AM

Org by Jim C. Toler, Georgia Tech

### **Risk Assessment for Unavoidable Exposures: Public Policy and Public Relations**

MONDAY PM

Org by Susan S. Ellenberg, FDA Ctr for Biologics Evaluation & Research

## **REFORMING SCIENCE EDUCATION**

AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

### **Standards-based Reform: Implications for K-12 Science Education**

SATURDAY AM

Org by Rodger W. Bybee, Biological Sciences Curriculum Study

### **Standards-based Reform: Implications for Undergraduate Science Education**

SATURDAY PM

Org by Ted Lopushinsky, Michigan State Univ, and Henry W. Heikkinen, Univ of Northern Colorado

### **Responsibility of Scientists for Quality and Diversity in Instructional Materials**

SUNDAY AM

Org by Joseph Sanders, Science Inst, and Ann C. Howe, Univ of Maryland

### **Partnership Efforts for Systemic Reform**

SUNDAY PM

Org by Robert A. Pierotti, Georgia Tech, and Carolyn C. Thorsen, Georgia Tech

### **Improving Undergraduate Education: Issues, Options, and Priorities**

MONDAY AM

Org by Herbert Levitan, Natl Science Foundation

### **Teaching Math: Lessons From the Russian Experience**

MONDAY PM

Org by Richard Askey, Univ of Wisconsin

### **The Mouth as a Laboratory**

MONDAY PM

Org by Marc W. Heft, Univ of Florida

### **The Origins of Scientific and Mathematical Literacy: Sources of Developmental and System Change**

TUESDAY AM

Org by Jon D. Miller, Chicago Academy of Sciences

### **Successful Mathematics-Based Intervention Programs**

TUESDAY PM

Org by Florence Fasanelli, Mathematical Assoc of America

## **THE DIVERSITY OF SCIENCE**

AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

### **Scientific Atlanta - An Excursion Through Astronomy, Biology, Chemistry, Physics**

FRIDAY AM

Org by Alfred Z. Msezane, Clark Atlanta Univ, and Steven T. Manson, Georgia State Univ

### **Mathematics and Science of Sports**

FRIDAY AM

Org by Mont Hubbard, Univ of California-Davis

### **Georgia State-wide Science and Technology Initiatives: An Overview**

FRIDAY PM

Org by Robert Nerem, Georgia Tech

### **Psychobiological Aspects of Performance and Health in Female Athletes**

FRIDAY PM

Org by Patrick J. O'Connor, Univ of Georgia

### **Youth Meets the Masters**

SATURDAY AM

Org by Saul Krasner, U.S. Coast Guard Academy

### **Science is Fun!**

SATURDAY PM

Org by Bassam Z. Shakhashiri, Univ of Wisconsin

### **Science for the Naked Eye, XXII**

SUNDAY AM, PM

Org by Rolf Sinclair, Natl Science Foundation

### **Mathematics and Music: Recent Developments in the Theory of Musical Perception**

MONDAY AM

Org by Robert E. Greene, Univ of California-Los Angeles

## **SCIENCE, ENGINEERING, AND TECHNOLOGY POLICY**

AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

### **Research and the Pursuit of National Goals**

FRIDAY AM

Org by Christopher T. Hill, George Mason Univ, and Jon M. Veigel, Oak Ridge Associated Universities

### **What is the Future for the Physical and Mathematical Sciences**

FRIDAY AM

Org by Al Teich, AAAS

### **Challenges to the Nuclear Nonproliferation Regime in the Early Nineties**

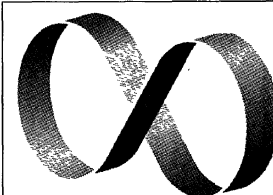
FRIDAY AM

Org by Anthony Fainberg, Office of Tech Assessment

### **The NPT Extension Conf**

FRIDAY PM

Org by Anthony Fainberg, Office of Tech Assessment



**AAAS  
Members—  
SAVE  
25% or more  
on your  
registration  
fee—  
see page 18.**

**SI  
95** Indicates sessions that may also be of interest to Science Innovation attendees.

**Where Are the Great Works of Science and Technology Policy Analysis?: A Roundtable**

FRIDAY PM

Org by David H. Guston, Rutgers Univ, and William C. Clark, Harvard Univ

**The Impact of the Collapse of the Soviet Union on Nonproliferation**

SATURDAY AM

Org by Glenn Chafetz, Univ of Georgia, and Richard T. Cupitt, Univ of Georgia

**Public Attitudes Toward Spending for Scientific Programs**

SATURDAY AM

Org by Jon D. Miller, Chicago Academy of Sciences

**The National Forum on Science and Technology Goals**

SATURDAY PM

Org by Gary Chapman, The 21st Century Project

**Scientific Freedom and Responsibility: Twentieth Anniversary Reflections**

SATURDAY PM

Org by Mark S. Frankel, AAAS

**Academic Engineering Research: What is it? Where is it Going?**

SUNDAY AM

Org by Robert P. Morgan, Washington Univ, and Iris C. Rotberg, Natl Science Foundation

**SI 95 Changing the Terms of the Biotechnology Debate**

SUNDAY AM

Org by Vivian Weil, Illinois Inst of Tech, and Ullica Segerstrale, Illinois Inst of Tech

**Policy Issues in Superfund Reauthorization**

SUNDAY PM

Org by W. Kip Viscusi, Duke Univ

**Grappling With Gridlock: Do We Need a New Paradigm for Managing Technological Risks?**

MONDAY AM

Org by William R. Freudenburg, Univ of Wisconsin, and Paul Slovic, Decision Research, Inc.

**Innovation vs Accountability: Priority Setting for Environmental and Agricultural Research**

MONDAY PM

Org by Terry L. Nipp, AESOP Enterprises, Ltd., and Robert F. Barnes, American Society of Agronomy

**Return to the Frontier: The Vannevar Bush Report, Now and Then**

TUESDAY AM, PM

Org by David H. Guston, Rutgers Univ, and Harvey Brooks, Harvard Univ

**Research Ethics: We're All Accountable, So Who's Accounting?**

TUESDAY AM

Org by C.K. Gunsalus, Univ of Illinois, and Drummond Rennie, Univ of California-San Francisco

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**TECHNOLOGY, FOOD, AND NATURAL RESOURCES**

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AM = 8:30 AM - 11:30 AM

PM = 2:30 PM - 5:30 PM

**Recent Advances in Fish Culture and Understanding of Aquatic Systems**

FRIDAY PM

Org by Joseph J. Molnar, Auburn Univ

**Recombinant DNA and Food: Societal and International Issues**

SATURDAY AM

Org by Gerald E. Gaull, Georgetown Univ, and Alvin Young, U.S. Dept of Agriculture

**The rBST Controversy: Science, Politics, and New Patterns of Technological Change in Agriculture**

SATURDAY PM

Org by Frederick H. Buttel, Univ of Wisconsin

**Implications of Reduced Pesticide Registrations and Use**

Sunday AM

Org by John M. Hodsdon

**The Carrying Capacity of Planet Earth**

SUNDAY PM

Org by Virginia V. Weldon, Monsanto Co.

**Key Forces Impacting Southeastern Agriculture and Natural Resource Management**

MONDAY AM

Org by E.T. Kanemasu, Univ of Georgia

**Positioning Agriculture for the 21st Century**

TUESDAY AM, PM

Org by Pierre C. Robert, Univ of Minnesota, and Robert F. Barnes, American Society of Agronomy

**Seminar**

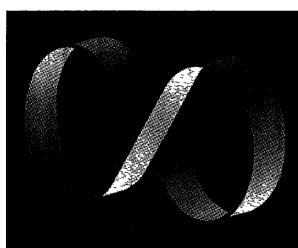
**Fundamental Issues of Imaging Science**

THURSDAY 16TH-FRIDAY 17TH 8:30 AM-5:30 PM

Org by Robert N. Beck, The Univ of Chicago-ANL Center for Imaging Science

*The traditional disciplines of science are grounded in the observation and measurement of object properties. Recent advances in digital computer technology have spawned numerous computer-based imaging systems that extend the range of observation and measurement into realism that would otherwise be inaccessible. More importantly, the same set of principles, concepts, strategies, and methods may be used to address the fundamental or generic issues that underlie the production and use of all digitized images, namely, image-data acquisition, image recovery (reconstruction and processing), image storage and distribution, image display/visualization, image observation/human vision, image analysis, and criteria for image evaluation. Recognition of this fact is rapidly giving rise to the new discipline of imaging science with its own intellectual agenda.*

*The goal of this seminar is to help define the agenda, the leading edge of research in the generic issues, and promising new directions for 'imaging scientists' at universities, national laboratories and federally conducted intramural research programs, as well as researchers in industries that develop computer hardware and software for imaging applications, high-performance networks, and mass-storage technologies. The program will consist of oral presentations, panel discussions, and poster sessions.*



**SI 95** Indicates sessions that may also be of interest to Science Innovation attendees.

# Science Innovation

AM = 8:30 AM - 11:30 AM  
PM = 2:30 PM - 5:30 PM

## MONDAY AM

### **Human Genome: Technologies and Tools**

Org by Glen Evans, Southwest Med Ctr, Dallas

### **Scientific Collaboration and the New Electronic Toolbox:**

**Groupware and Telecommunications**  
Org by Maureen C. Kelly, BIOSIS

### **Genetic Manipulation of Plant Development**

Org by Robert B. Goldberg, Univ of California-Los Angeles

### **Nanotechnology: Biological Machines**

Org by Steve Fodor, Affymetrix

### **Drug Design**

Org by Dave Galas, Darwin Molecular Corp

## MONDAY PM

### **Topical Lecture:**

Mary-Claire King\*, Univ of California-Berkeley

### **Nanotechnology and Biomolecular Electronics**

Org by Elias Greenbaum, Oak Ridge Natl Lab, and Robert R. Birge, Syracuse Univ

### **Human Genome: Applications**

Org by Leroy E. Hood, Univ of Washington

### **Engineering of Resistance in Plants**

Org by Michael Lawton, Waksman Inst

### **Protein Folding**

Org by Ken Dill, Univ of California-San Francisco

### **Targeted Delivery of Drugs and Genes**

Org by Martin Yarmush, Rutgers Univ, and Mehmet Toner, Shriners Research Ctr

## TUESDAY AM

### **Immunology: Mechanisms**

Organizer TBA

### **Tissue Engineering: Basic Research**

Org by Robert M. Nerem, Georgia Tech

### **Signal Transduction**

Org by Rusty Williams, Chiron Corp

### **DNA Analysis**

Organizer TBA

### **Gene Therapy I: Gene Transfer Vectors**

Org by Savio Woo, Baylor College of Medicine

## TUESDAY PM

### **Topical Lecture:**

Douglas C. Wallace\*, Emory Univ Sch of Med

### **Immunology: Clinical Applications**

Org by John Ross, Stanford Univ

### **Tissue Engineering: Industrial Applications**

Org by Robert M. Nerem, Georgia Tech

### **Gene Therapy II: Disease Applications**

Org by Savio Woo, Baylor College of Medicine

### **Networks of Chemical Interactions**

Org by John Ross, Stanford Univ

### **Cell Cycle Control**

Organizer TBA



## Science Innovation Organizing Committee

SAVIO L. C. WOO, *Chair*

Baylor College of Medicine  
and Howard Hughes Medical Institute

ROBERT B. GOLDBERG

University of California — Los Angeles

LEROY E. HOOD

University of Washington

DAVID MARTIN

Chiron Corporation

ROBERT M. NEREM

Georgia Institute of Technology

*\*Invited, not yet confirmed*

# INFORMATION

## General Meeting

### Meeting Locations

Atlanta Marriott Marquis  
265 Peachtree Center Avenue  
Atlanta, GA 30303

Hyatt Regency Atlanta  
265 Peachtree Street, NE  
Atlanta, GA 30303

### Hotel Information

#### ATLANTA MARRIOTT MARQUIS

Located directly across the street from the Hyatt Regency and connected to Peachtree Center, the Marriott Marquis is convenient to a wide selection of shopping, restaurants, and downtown attractions. Upon entering the hotel, guests are captivated by the architectural genius embodied in the soaring 50-foot atrium. Complimenting the Marquis' unique design is a staff dedicated to providing the highest level of service. The hotel also offers a fully-equipped health club, an indoor/outdoor swimming pool, spacious convention facilities, 24-hour room service, a business center, and five distinctly different restaurants.

The Marriott will be the site of the AAAS Meeting Headquarters, the Exhibition, the Employment Exchange, and scientific sessions.

#### HYATT REGENCY ATLANTA

Located directly across the street from the Marriott Marquis, the Hyatt Regency is an integral part of Peachtree Center, which houses a magnificent network of offices, garden plazas, shops, restaurants, and MARTA (Atlanta's rapid transit system).

The hotel which revolutionized the hospitality industry with its 23-story atrium design, consists of 1,279 luxury guest rooms and suites including exclusive Regency Club and Gold Passport levels. It features four elegant restaurants, including Polaris, a spectacular 327-foot high revolving rooftop restaurant reached via glass elevator.

The Hyatt will be the site of the AAAS Newsroom (for members of the press) and scientific sessions.

### On-Site Registration Hours

Thursday, February 16, 1995	7:30 AM – 9:30 AM (Seminar Only) 1:00 PM – 7:00 PM
Friday, February 17, 1995	7:30 AM – 6:30 PM
Saturday, February 18, 1995	7:00 AM – 5:00 PM
Sunday, February 19, 1995	7:00 AM – 5:00 PM
Monday, February 20, 1995	7:00 AM – 5:00 PM
Tuesday, February 21, 1995	7:00 AM – 2:00 PM

### Barrier-Free Environment

Accommodations for people with disabilities are provided upon request at all general lectures and other sessions. Services include interpreters for the deaf or hearing impaired, audiotaped highlights for the blind or visually impaired, and mobility assistance within and outside the Marriott and Hyatt as needed. In addition, a resource room for people with disabilities will be available in the State Room, on the conference level of the Marriott Marquis. Please make sure to check the special needs box on the registration form. AAAS will contact you before the meeting.

### Important Deadlines

Advance Registration:	January 31, 1995
Hotel Registration:	January 17, 1995
Call for Papers/Posters:	November 15, 1994

### For More Information Contact:

AAAS

Membership/Meetings Department  
1333 H Street, NW  
Washington, DC 20005  
Phone: (202) 326-6450  
FAX: (202) 289-4021

### Discount Air Fares

Get discounted airfare to the 1995 AAAS Annual Meeting and Science Innovation Exposition and your next flight may be free.

Make your reservations on Delta Air Lines to save money on air fares for travel to and from Atlanta from 11-26 February 1995.

- Save 5% off the lowest published domestic fares, subject to availability.
- Save 10% off the selling coach fare.
- Special zone fares do not require a Saturday night stay over.

**Plus you may win free tickets!** Drop by the AAAS Membership booth in the Exhibit Hall to enter your name in a drawing for two free tickets on Delta Air Lines. Good for travel in the continental United States and Alaska. Winner will be announced at the meeting. For details and reservations, call Delta Air Lines at the numbers below. Be sure to mention file number N1182 when making reservations in order to get these discounts.

**Toll-free number: 1-800-241-6760**

**TDD, for hearing impaired: 1-800-831-4488**

Outside the United States, contact your local Delta representative.

### Meeting Information Available by E-Mail

To receive a program synopsis, and registration and hotel forms, send an e-mail message to: [AMSIE95@AAAS.ORG](mailto:AMSIE95@AAAS.ORG). The body of your message should include: "Send program info." To have a printed copy of the full program mailed to you, the body of the message should include a name and mailing address.

## Local Transportation

Atlanta Airport Shuttle: Departs from the airport for downtown every 15 to 20 minutes. The cost is \$8 one-way; \$14 round-trip.

MARTA: Metropolitan Atlanta Rapid Transit Authority trains depart every six to 15 minutes for downtown. Cost is \$1.25 each way, and travel time is about 20 minutes. From the airport, take the North-South line to station N1 (Peachtree Center).

Taxis: To downtown, the fixed rate is \$15 for one passenger, \$8 per person for two passengers, and \$6 per person for three passengers. Allow approximately 30 minutes for travel from the airport to downtown.

## Field Trips

The expeditions described below will take participants to places in Atlanta that enrich the scientific content of the Meeting. The trips will be kept small (as few as 20 people) so that everyone can talk with the leaders and learn from the sites. Early enrollment is advised because of space limitations. Cost for all field trips is \$20 per person. Field trips are limited to AAAS Annual Meeting attendees and their guests.

**ATLANTA BOTANICAL GARDEN** — February 16, 12:30–5:00 pm  
Located in the heart of the city, these 15 acres of landscaped gardens showcase more than 3,000 plants. The Dorothy Champman Fuqua Conservatory displays tropical, desert, and endangered plants on a year-round basis.

**ETOWAH INDIAN MOUNDS** — February 21, 12:00–5:00 pm  
In Cartersville along the Etowah River, these flat-topped knolls were used between 1000 and 1500 A.D. as a platform for the home of the Priest-Chief as temples, and as mortuary houses for the people who then occupied this site.

**FERNBANK MUSEUM OF NATURAL HISTORY** —

February 21, 12:30–5:00 pm

Situated in an old-growth forest, this relatively new museum of natural science houses permanent exhibits chronicling the Earth's history and the diverse natural history of the state of Georgia.

**YERKES PRIMATE RESEARCH CENTER** — February 16, 12:00–5:00 pm

The center is famed for its work on the biological basis of behavior and language development in apes and humans, and diseases such as AIDS and Parkinson's.

## Special Events

### PUBLIC SCIENCE DAY

One of the goals of AAAS is to increase public understanding and appreciation of the promise of scientific methods in human progress. Public Science Day accomplishes this by inviting local area residents to experience "hands-on" science and to meet scientists.

Public Science Day will launch meeting activities on Thursday, February 16. Plans for Public Science Day in Atlanta are currently being developed. It will be an all-day event, starting with school field trips to places of science where children participate in technologies of the future. Grandparents will take pre-schoolers to the zoo to see how the animals are cared for and trained. The grand finale is a Family Night program.

A natural theme for the day will be Olympics (the science of sports and the engineering that goes into making preparations to hold the Olympics in Atlanta). For more information contact Amie Hubbard at AAAS, Telephone: 202-326-6760, Fax: 202-371-9849 (fax), Internet: [ahubbard@aaas.org](mailto:ahubbard@aaas.org)

### AMERICAN JUNIOR ACADEMY OF SCIENCE (AJAS)

The 1995 AJAS meeting will be held in conjunction with the AAAS Annual Meeting. The nation's premier pre-college scientists will share their work through oral and poster presentations, and interact with their peers and professional scientists in Atlanta. For more information contact Gloria Takahashi at 213-744-3384.

# Employment Exchange

## Employer Benefits

- Access to hundreds of top-notch candidates' resumes cross-referenced by discipline (including candidate file searches).
- On-site interview facilities/interview booth at '95 Annual Meeting.
- Unlimited position available postings.
- Subscription to the Employment Exchange Bulletin, which contains a brief synopsis of each available candidate enrolled with the Exchange.
- Special rates for AAAS Annual Meeting exhibitors, academic, and nonprofit organizations.
- Job & Resume Referral service at divisional meetings.
- No charge for AAAS Corporate Members.

## Candidate Benefits

- FREE enrollment for AAAS member candidates. (Nonmembers pay a modest \$10 annual enrollment fee).
- Hundreds of current position openings in a variety of disciplines and experience levels.
- On-site interview facilities, including on-the-spot interviews.

- Access to full descriptions of all available positions (meeting attendees only). To purchase postings, see fee schedule.
- On-site Career Development Seminars.
- Employment Exchange Only fee for non-conference attendees.

*For more information and enrollment forms, contact:*

**Kevin Bullock, Project Coordinator**

**AAAS Employment Exchange**

**1333 H Street, NW, Suite 1159 • Washington, DC 20005 USA**

**Telephone (202) 326-7049**

**INTERNET: [kbullock@aaas.org](mailto:kbullock@aaas.org)**

## Employment Exchange Hours

Friday, February 17, 1995	11:00 AM	–	5:00 PM
Saturday, February 18, 1995	10:00 AM	–	6:00 PM
Sunday, February 19, 1995	10:00 AM	–	6:00 PM
Monday, February 20, 1995	10:00 AM	–	6:00 PM
Tuesday, February 21, 1995	9:00 AM	–	1:00 PM

# Exhibitors

## 1995 Exhibitors

*(Partial listing as of October 1, 1994)*

Academia Book Exhibits  
American Association for Accreditation of Laboratory Animal Care  
Battelle Memorial Institute  
Casio  
Discover Magazine  
Discovery Scope, Inc.  
Dover Publications, Inc.  
Heldref Publications  
Island Press  
MBNA Marketing Systems, Inc.

National Geographic Research & Exploration  
Office of Naval Research  
Q-Lamp  
Science-By-Mail  
Student Pugwash  
The American Society of Mechanical Engineers  
The Association of American University Presses, Inc.  
The Ecumenical Roundtable on Science, Technology, and the Christian Faith  
U.S. Geological Survey  
U.S. Department of Energy

## Recent Exhibitors

Academic Press, Inc. • Addison-Wesley Publishing • Advanced ChemTech, Inc. • Advanced Graphics Software • Advanced Magnetics, Inc. • Allen Press, Inc. • Alza Corp. • American Association of Pharmaceutical Scientists • American Geological Institute • American Institute of Physics • American Mathematical Society • Americans for Medical Progress • Amersham • Amicon • Ana-Gen Technologies, Inc. • Applied Imaging Corp. • Aries Systems Corp. • Association of American Geographers • Association of Biotechnology Companies • AT Biochem • Avery Dennison • Basic Books • BBN Systems and Technologies • Beckman Instruments • Bio/Can Scientific, Inc. • Bioelectronics Corp. • BioGenex • Bio-Rad Laboratories • BIOSYM Technologies • Bio-Tek Instruments • Biotechnology Industry Organization • Boeing Defense & Space Group • Brinkmann Instruments, Inc. • Bruker Instruments, Inc. • BTX • Candian Space Agency • Cell Press, Inc. • Cell Robotics, Inc. • Charles River Laboratories • Chemical Design Inc. • ChemSoft, Inc. • CIESIN • Clonetics Corp. • CLONTECH Laboratories, Inc. • Coherent Laser Group • Cohesive Technologies • Committee for the National Institute for the Environment • Conference Book Service, Inc. • Corning, Inc. • Council for Responsible Genetics • CPG, Inc. • Cruachem, Inc. • DAKO • David Kopf Instruments • Department of Veterans Affairs • Digene Diagnostics Inc. • Digital Equipment Corp. • Dionex Corp. • Dupont Biotechnology Systems • Dynatech Laboratories, Inc. • Eaton Publishing • The Edison Society • Elsevier Science Publishing • Emeritus Foundation • Encyclopaedia Britannica © North America • Endogen • Engineering Technology Center • Envisage, Inc. • Epicentre Technologies Corp. • FFFractionation, Inc. • Finnigan MAT • Fisons Instruments • FMC BioProducts • Forma Scientific, Inc. • FOTODYNE • Galai Instruments, Inc. • General Valve Corp. • Genset Corp. • Glyko, Inc. • Hamamatsu Photonic Systems • Hamilton Co. • Harvard University Press • Hitachi Software Engineering America, Ltd. • Hitachi Chemical Research Ctr • Hoefer Scientific Instruments • Howard Hughes Medical Institute • The Humana Press • IllumeSys, Inc. • International Committee Against Racism • IntelliGenetics/Betagen • Intelligent Automation Systems • International Biotechnology Suppliers Association • International Equipment Co. • ISCAN, Inc. • Isco, Inc. • J.T. Baker • John Wiley & Sons • Joint Oceanographic Institute • Jolley Consulting & Research • Jones & Bartlett Publishers • Kirkegaard & Perry Labs, Inc. • Lab Industries, Inc. • Laboratory Technologies Corp. • Laboratory Equipment Co. • Lahey Computer Systems, Inc. • Lawrence Berkeley Lab • LEGO Dacta • LI@COR, Inc. • Lightbinders, Inc. • M-Scan Inc. • Macsyma, Inc. • Manostat Corp. • Marsh Biomedical Products, Inc. • Marshall Space Flight Center • MicroCal Software, Inc. • MicroPatent • Micro Video Instruments, Inc. • Middlesex Sciences, Inc. • Millipore, Inc. • MJ Research • Molecular Devices Corp. • Molecular Dynamics • Molecular Simulations, Inc. • Mountain Press Publishing Co. • NASA/Goddard Space Flight Ctr • NASA/Marshall Space • NASA Scientific and Technical Information Program • National Academy Press • National Biosciences, Inc. • National Institute of Health/Office of Aids Research • National Institute of Health/Office of Education • National Instruments Corp. • National Labnet Co. • National Renewable Energy Laboratory • National Scientific Supply, Inc. • New England Biolabs, Inc. • Niles & Associates, Inc. • NOAA/Natl Marine Fisheries Service • Nolo Press • Novagen, Inc. • Novex • Oak Ridge Associated Universities • Office of Naval Research • Olympus Corp. • Owl Scientific, Inc. • Oxford University Press • Packard Instruments Co., Inc. • Perceptive Scientific Instruments • Perkin-Elmer, Co. • PerSeptive Biosystems • Pharmacia Biotech, Inc. • PharMingen • PHI Enterprises • Phillips Petroleum Co. • Pierce Chemical Co. • The Planetary Society • Polysciences, Inc. • Princeton Instruments, Inc. • Princeton Separations, Inc. • Protein & DNA ImageWare System • Protestant Churches for Science • The Publishers Book Exhibit • Radnoti Glass Technology, Inc. • Rainin Instrument Co., Inc. • Ray Products Co., Inc. • Research Center on Computing & Society • Research Information Systems • Robbins Scientific Corp. • Science Service • Scientific, Medical Publications of France • Seikagaku America, Inc. • Seres Laboratories, Inc. • The Scholar's Choice • The Scientist • Sheldon Manufacturing, Inc. • Sigma Delta Epsilon • Space Telescope Science Institute • State Network for BioMedical Research • StatSpin Technologies • Stovall Life Science, Inc. • Sun BioSciences • Sygena, Inc. • Synthecell Vega Biomolecules • SYSTAT, Inc. • TaKaRa Biochemical Inc. • Taylor & Francis • TCI Software Research • Tecan/SLT Labinstruments • Texnology • Time Logic, Inc. • U.S. Army Natick Research, Development & Engineering • U.S. Bureau of Mines • U.S. Department of Energy, Office of Technology Development • U.S. Department of Energy, Office of Environmental Restoration and Waste Management • U.S. Environmental Protection Agency • U.S. Fish & Wildlife Service • U.S. Geological Survey • Ulster Scientific, Inc. • Union of Concerned Scientists • United Campus Ministry • United Nations Publications • Universal Imaging Corp. • University of Chicago Press • University Science Books • Walcoff & Associates • Wolfram Research, Inc. • Xenopore Corp. • Yale University Press • Yamato Scientific America/Baxter Scientific Products • Zymark

## Exhibit Hours

Friday, February 17, 1995	5:00 PM	—	7:00 PM
Opening Reception	5:00 PM	—	6:30 PM
Saturday, February 18, 1995	10:00 AM	—	4:00 PM
Sunday, February 19, 1995	10:00 AM	—	4:00 PM
Monday, February 20, 1995	10:00 AM	—	3:00 PM

***For more information or to reserve  
your booth space contact:***

GLOBAL TRADE PRODUCTIONS, INC.  
Two Skyline Place  
5203 Leesburg Pike  
Suite 1313  
Falls Church, VA 22041  
Phone: 703-671-1400 FAX: 703-671-7695



# Hotel Reservation Form

The AAAS Annual Meeting & Science Innovation Expo • 16-21 February 1995 • Atlanta

(Please print clearly)

Name \_\_\_\_\_  
(last name) (first name)

Institution/Company \_\_\_\_\_  
(if part of address)

Address \_\_\_\_\_

City/State/Zip/Country \_\_\_\_\_

Phone \_\_\_\_\_ FAX \_\_\_\_\_

List names of other occupant(s) of room:

1. \_\_\_\_\_ 3. \_\_\_\_\_

2. \_\_\_\_\_ 4. \_\_\_\_\_

Special housing needs: ☐ Wheelchair accessible room ☐ Smoking room

☐ Other \_\_\_\_\_

Reservations must be guaranteed with a credit card or check for first night's deposit (room rate plus 13% sales/occupancy tax).

☐ VISA ☐ MasterCard ☐ Discover ☐ American Express ☐ Check Enclosed

Credit Card # 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Signature \_\_\_\_\_ Expiration Date \_\_\_\_\_

Arrival Date: \_\_\_\_\_ Departure Date: \_\_\_\_\_

## Room Rates

Check appropriate box below for your choice of hotel and room. Add 13% occupancy tax to rates shown.

### Atlanta Marriott Marquis (Headquarters Hotel)

Attn: Reservations, 265 Peachtree Center Avenue, Atlanta, GA 30303  
(FAX 404-586-6247)

Single	Double	Triple	Quadruple
\$112 <input type="checkbox"/>	\$122 <input type="checkbox"/>	\$132 <input type="checkbox"/>	\$142 <input type="checkbox"/>

### Hyatt Regency Atlanta

Attn: Reservations, 265 Peachtree Street, NE, Atlanta, GA 30303  
(FAX 404-588-4808)

	Standard	Business Plan <sup>1</sup>	Regency Club <sup>2</sup>
Single	\$110 <input type="checkbox"/>	\$125 <input type="checkbox"/>	\$135 <input type="checkbox"/>
Double/Twin	\$122 <input type="checkbox"/>	\$137 <input type="checkbox"/>	\$147 <input type="checkbox"/>
Triple	\$132 <input type="checkbox"/>	\$147 <input type="checkbox"/>	\$157 <input type="checkbox"/>
Quadruple	\$142 <input type="checkbox"/>	\$157 <input type="checkbox"/>	\$167 <input type="checkbox"/>

<sup>1</sup> Business plan amenities include in-room fax machine; coffee maker; personal workstation; no telephone access charges for credit card, 800 number, or local calls; daily newspaper; access to printer and copier on floor; continental breakfast.

<sup>2</sup> Regency club amenities include floor concierge, club lounge serving continental breakfast, and afternoon hors d'oeuvres.

## Important Notes

**Deadline:** Reservations must be received at the appropriate hotel by 17 January 1995. Housing requests received after this date are conditional on room availability.

**Changes/Cancellation:** Must be made directly with the hotel. Cancellations must be received at the appropriate hotel no later than 72 hours prior to scheduled arrival. Rooms are guaranteed for late arrival; failure to notify hotel of cancellation will result in the forfeiture of one night's deposit (room rate plus 13% tax).

**Check in/out:** Check in time is 3:00 PM.  
Check out time is 12 noon.

**Children under 18:** Stay free if they are in the same room as their parents and use the existing bedding.

## Mailing Instructions

Mail or FAX this form to the hotel of your choice at the address or FAX number indicated. Do **NOT** send this form to AAAS.

# Advance Registration Form

Advanced Deadline: 31 January 1995

The AAAS Annual Meeting & Science Innovation Expo • 16-21 February 1995 • Atlanta

## I. Registrant Information (Please type or print clearly; allow 40 characters per line for name and institution)

AM95X-SC

First/given name	Last/family name	
Institution/company		
Mailing Address		
City	State	Zip code
Country	EMAIL/Internet Address	
Daytime phone number	Fax number	

**REGISTER NOW AND SAVE**  
Late and on-site fees are \$20-\$50 higher!

☐ Special needs due to disability AAAS member number (if member) \_\_\_\_\_

☐ Check here if PATRON MEMBER AAAS primary section (if member) \_\_\_\_\_

**ATTN:** To qualify for STUDENT or SPECIAL registration fee, please complete the appropriate line below:

☐ **Student** Institution Name: \_\_\_\_\_ Level: \_\_\_\_\_

☐ **Post Doc** Chairperson's Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

☐ **K-12 Teacher** Principal's Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

## II. Advance Registration Fees

### A. CONFERENCE AAAS MEMBER NON-MEMBER

**Meeting Only:** Entry to all symposia, topical lectures, Science Innovation sessions and workshops, and Exhibit Hall.

<input type="checkbox"/> Regular	\$145	\$195
<input type="checkbox"/> Student <sup>1</sup>	25	45
<input type="checkbox"/> Special <sup>*1</sup>	75	100

**Seminar Only:** Entry to two-day seminar and Exhibit Hall only.

<input type="checkbox"/> Imaging Seminar	\$95	\$150
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**Meeting Plus Seminar:** Full entry to all sessions, lectures, seminars, exhibits, and workshops.

<input type="checkbox"/> Regular	\$225	\$330
<input type="checkbox"/> Student <sup>1</sup>	99	175
<input type="checkbox"/> Special <sup>*1</sup>	150	230

**One Day Only:** Please specify day below.

All attendees	\$95	\$125
<input type="checkbox"/> Thurs. <input type="checkbox"/> Fri. <input type="checkbox"/> Sat. <input type="checkbox"/> Sun. <input type="checkbox"/> Mon. <input type="checkbox"/> Tues.		

\*Special = Retired, K-12 Teacher, Postdoctoral

### B. OPTIONAL AAAS MEMBER NON-MEMBER

<input type="checkbox"/> Exhibition Hall Only	\$25	\$25
<input type="checkbox"/> Field Trip	20	20

Please specify trip(s) and the number of people in your party. Field trips are limited to AAAS Annual Meeting attendees and their guests.

Yerkes Primate Rsch Ctr = # \_\_\_\_\_ x \$20 each = \$ \_\_\_\_\_

Atlanta Botanical Garden = # \_\_\_\_\_ x \$20 each = \$ \_\_\_\_\_

Fernbank Museum of Natl History = # \_\_\_\_\_ x \$20 each = \$ \_\_\_\_\_

Etowah Indian Mounds = # \_\_\_\_\_ x \$20 each = \$ \_\_\_\_\_

**TOTAL FIELD TRIP(S) = \$ \_\_\_\_\_**

### C. MEMBERSHIP<sup>2</sup>

If you are not an AAAS member, you can join now by checking the appropriate box below—and take advantage of the discounted member registration fees. You'll also get a year's subscription (51 issues) to the journal *Science* at the lower 1994 rate.

	USA	CANADA	INTERNATIONAL
<input type="checkbox"/> Regular	\$92	\$151.94	\$187
<input type="checkbox"/> Student	50	107.00	145
<input type="checkbox"/> Postdoc	67	125.19	162
<input type="checkbox"/> Retired	50	107.00	145

## III. Payment<sup>3</sup>

(Check appropriate boxes under A, B, or C and write in Advance Fees below)

A. Conference Fee .....\$ \_\_\_\_\_

B. Exhibition Only fee.....\$ \_\_\_\_\_

Field Trip Total .....\$ \_\_\_\_\_

C. Membership dues (if joining now) .....\$ \_\_\_\_\_

**TOTAL AMOUNT \$ \_\_\_\_\_**

### Payment Method:

☐ Check enclosed<sup>4</sup>

☐ Original institutional purchase order attached

☐ Charge to my: ☐ VISA ☐ MasterCard ☐ American Express

(no other cards accepted)

Credit Card # \_\_\_\_\_

Signature \_\_\_\_\_ Exp. date \_\_\_\_\_

☐ Check here if attending Science Innovation symposia

## IV. How to Register

**Complete and mail this form to:**

The AAAS Annual Meeting  
P.O. Box 630285  
Baltimore, MD 21263

**Or fax to:** 202-289-4021 (credit card payments only)

**Note: To avoid duplicate billing of your credit card, do not mail in hard copy if you faxed this form.**

**ADVANCE REGISTRATION FEES**  
valid through 1/31/95

### Important Notes:

- [1] Students, post-docs, and K-12 teachers must complete the verification information to be accepted at the special registration rates.
- [2] Membership dues indicated herein are at the 1994 rates. Although dues will increase on January 1, 1995, the 1994 rates are guaranteed through 21 February 1995 for registration of the Annual Meeting: \$50 of dues plus international postage are allocated to *SCIENCE*. Please allow 4-6 weeks for receipt of your first issue of *SCIENCE*. Canadian rate includes GST #125488122.
- [3] Cancellations must be received in writing by 31 January 1995. No refunds will be made for cancellations received after this date. Refunds are subject to a \$25 cancellation charge and will be processed after the meeting.
- [4] Checks must be in United States currency and must be payable on a U.S. bank.



## Vertical Electrophoresis Cell

The Protean II xi cells have the versatility to perform a wide variety of separations, including SDS-polyacrylamide gel electrophoresis and first and second dimension gels for two-dimensional, native, preparative, gradient, and high-resolution nucleic acid agarose electrophoresis—techniques once considered the work of multiple instruments. The cells allow the user to run one-, two-, or four-slab gels, or up to 16 isoelectric focusing tube gels at once. The cells are available in two gel lengths, 16 or 20 cm, with a wide selection of combs and spacers. **Bio-Rad Laboratories.** Circle 138.

## In Vitro Protein Synthesis

An improved rabbit reticulocyte in vitro translation system is designed for the efficient incorporation of radioactively labeled amino acids into nascent polypeptides. The system gives increased levels of in vitro protein synthesis using either capped or uncapped messenger RNAs (mRNAs). It can be used for translation of a wide variety of exogenous mRNAs and is capable of synthesizing proteins of both high and low molecular weights. Applications include in vitro translation of specific mRNAs, in vitro transcripts, and total RNA; characterization of mRNA products; and co-translational processing of secreted proteins. **Amer-sham International.** Circle 139.

## Recombinant Protein Kit

The IBI Yeast N-Terminal FLAG Expression Kit for immunological detection and affinity purification of recombinant proteins is based

on the fusion of a low molecular weight, hydrophilic, eight amino acid peptide to the amino-terminus of a cloned protein. Benefits of the system include no induction required, high yield extracellular protein expression, protein processing similar to animal cells, specific immunological detection, mild affinity purification from cell supernatants, and easy marker removal. **Eastman Kodak.** Circle 140.

## Long Product PCR Kit

The Gene Amp XL PCR Kit is for the generation of long (from > 5 kb up to 40 kb) polymerase chain reaction (PCR) products. A new enzyme (*Thermus thermophilus* DNA Polymerase XL) along with a novel reaction buffer creates optimal conditions for generating extra long PCR products with high reproducibility and specificity. The ability to amplify long sequences of DNA greatly enhances efforts in genome mapping, sequencing, and characterization. The kit allows long-range direct PCR product sequencing, crossing of intervening sequences in expressed genes, and PCR-based characterization and diagnosis of medically important large gene insertions or deletions. **Perkin-Elmer.** Circle 141.

## Cellular Interaction Reagents

Four new reagents for cellular interaction studies include CD80 (Anti-BB-1/B7), CD31 (Anti-PECAM-1), CD58 (Anti-LFA-3), and CD49d (Anti-VLA- $\alpha$ 4). The reagents are designed for a wide range of research applications, including studies of cell adhesion molecules and ligand-receptor interactions, signal transduction and activation in T-

and B-lymphocyte interactions, and cell-cell and cell-extracellular matrix adhesion. **Becton Dickinson Immunocytometry Systems.** Circle 142.

## PCR Master

Polymerase chain reactions (PCR) are as simple as adding primers and template to an aliquot of PCR Master. The premixed solution containing Taq DNA poly-



merase, optimized reaction buffer, and nucleotides eliminates several individual pipetting steps and thereby simplifies the simultaneous preparation of multiple samples. **Boehringer Mannheim.** Circle 143.

## Fluorescence Labeling Kit

The Signal Labeling Kit is for applying fluorescent labels to oligosaccharides. The kit makes use of 2-aminobenzamide (2-AB) to label oligosaccharide mixtures or pure oligosaccharides at their reducing terminus. Reaction conditions give a very high yield (>85%) without loss of sialic acids. From 25 pmol to 50 nmol of sample oligosaccharide, 2-AB labeled glycans can be prepared in only 2 hours. The versatile 2-AB label is compatible with most analytical and profiling techniques including mass spectrometry, high-performance liquid chromatography, and gel permeation chromatography. **Oxford GlycoSystems.** Circle 144.

## Math Software

Macsyma 2.0 is an upgrade of mathematical software that includes animated object-oriented graphics, a convenient notebook interface, and linear algebra rivaling that in specialized software products. Major new capabilities in scientific graphics, executable notebooks, linear algebra, and differential equations distinguish the new release. It offers many other enhancements as well, especially in numerical analysis and speed. **Macsyma.** Circle 145.

## Literature

*Data Acquisition* is a 288-page catalog and reference guide detailing a full line of personal computer-based data acquisition hardware and software products. **Keithley MetraByte.** Circle 146.

*Cole-Parmer 1995-1996 catalog* contains more than 1700 full-color pages with more than 40,000 products, including scientific instruments, equipment, and supplies. **Cole-Parmer Instrument.** Circle 147.

*The Alltech Model 350 Conductivity Detector*, a microprocessor-based liquid chromatography detector, provides universal, reproducible, high sensitivity detection of all charged species. **Alltech Associates.** Circle 148.

*Product Profile: Ni-NTA Spin Kits for Minipreps of 6xHis-Tagged Proteins* describes these tools for use with small-scale expression cultures. **Qiagen.** Circle 149.

*Anderson's Timesaving Comparative Guide: Restriction Enzyme Edition* helps the user find suppliers and prices for more than 300 different restriction enzymes. Each listing includes size, concentration, methylation sensitivity, isoschizomers, neoisoschizomers, supplier catalog numbers, prices, and availability. Each item is listed in a unit-per-dollar manner. **Anderson Publications.** Circle 150.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.

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## 1995-96 Congressional Science and Engineering Fellowships

**PROGRAM:** Fellows spend one year working as special assistants on the staffs of members of Congress or congressional committees, working in legislative areas requiring scientific and technical expertise. The program includes an orientation on congressional and executive branch operations and a year-long seminar program on issues involving science and public policy. Fellows receive stipends from their sponsoring societies.

**PURPOSE:** To provide a unique public policy learning experience, to demonstrate the value of science-government interaction, and to make practical contributions to the more effective use of scientific and technical knowledge in government.

**CRITERIA:** A prospective Fellow must be a postdoctoral to midcareer scientist or engineer; demonstrate exceptional competence in some area of science or engineering; be cognizant of many matters in nonscientific areas; demonstrate sensitivity toward political and social issues; and perhaps most important, have a strong interest and some experience in applying personal knowledge toward the solution of societal problems.

**SPONSORS:** More than twenty national professional scientific and engineering societies will sponsor or cosponsor Congressional Science and Engineering Fellows in 1995-96:

Acoustical Society of America  
American Academy of Physician Assistants  
American Association for the Advancement  
of Science  
American Association of Colleges of Pharmacy  
American Chemical Society  
American Geophysical Union  
American Institute of Biological Sciences  
American Institute of Physics  
American Physical Society  
American Podiatric Medical Association  
American Psychological Association

American Society for Microbiology  
American Society of Agronomy/Crop Science Society  
of America/Soil Science Society of America/Weed  
Science Societies  
American Society of Mechanical Engineers  
American Veterinary Medical Association  
Federation of American Societies of Food  
Animal Sciences  
Geological Society of America  
Institute of Electrical and Electronics Engineers  
National Society of Professional Engineers  
Office of Technology Assessment

Applicants should apply directly to the appropriate professional society. It is acceptable to apply to more than one society. Stipends, application procedures, timetables, and deadlines vary by society. Minorities and persons with disabilities are encouraged to apply. Further information about the program and a list of the participating societies, with mailing addresses and contact people, is available from:

**Congressional Science and Engineering Fellowship Program**  
**American Association for the Advancement of Science**  
**1333 H Street, NW, Washington, DC 20005**  
**202/326-6600    Fax: 202/289-4950**  
**Internet: [science\\_policy@aaas.org](mailto:science_policy@aaas.org)**

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# Science

## PERSONNEL PLACEMENT

### LINE CLASSIFIED ADVERTISEMENTS

**Deadlines:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Ads must be submitted in writing.

#### How to Submit a Classified Ad:

Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training, Search Firms. *Science* cannot provide proofs of typeset line ads.

#### Mail, FAX or Email materials to:

Science Classified Advertising  
1333 H Street, N.W., Room 814  
Washington, DC 20005  
Telephone: 202-326-6555  
FAX: 202-682-0816

Internet Email: science\_classifieds@aaas.org

**Rates:** Ads are \$43 per line; \$430 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads.

**Estimates:** *Science* will provide a cost estimate for line ads. This is an approximate cost only. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment.

**Ads from Outside the U.S.:** A discount of \$30 will be offered to advertisers making payment in U.S. dollars by checks drawn on U.S. banks. Contact Gordon Clark at +44 223 302 067 (telephone) or +44 223 302 068 (FAX).

**Credit Cards:** *Science* accepts MasterCard and VISA. Discount does not apply to credit cards.

**Cancellations:** Deadline for cancellation is 10 a.m., Tuesday, 10 days prior to issue date.

### DISPLAY PERSONNEL ADVERTISEMENTS

For rates and info. for fractional display ads call:

Deborah Cummings  
Recruitment Advertising  
Telephone: 202-326-6541  
FAX: 202-682-0816

Janis Crowley  
Recruitment Advertising Manager  
Telephone: 212-496-7704  
FAX: 202-682-0816

Gordon Clark  
European Recruitment Advertising  
Telephone: +44 223 302 067  
FAX: +44 223 302 068

**CONDITIONS:** Personnel advertising is accepted only with the understanding that the advertisers do not discriminate among applicants on the basis of race, sex, religion, age, color, handicap or sexual preference. The AAAS encourages employers to actively recruit and employ underrepresented minority groups. *Science* reserves the right, at its discretion, to edit or decline to publish advertisements submitted to it.

## POSITIONS OPEN

### WEST VIRGINIA UNIVERSITY ROBERT C. BYRD HEALTH SCIENCES CENTER Anatomy Faculty Position

The Department of Anatomy at the West Virginia University Health Sciences Center invites applications for a tenure-track position at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. Applicants should have a Ph.D. or M.D. or equivalent degree, with training and substantial relevant experience in some area of structural, cellular or molecular biology. They should have a record of significant research achievement and be prepared to mount a strong individual program of externally supported research. Research interests in the areas of neuroscience (especially developmental neuroscience) or lung biology would fit best with current departmental and institutional plans and programs, however other areas will be considered. Applicants with teaching experience and/or interest in innovative methods of instruction in Human Anatomy, Embryology, Neuroanatomy or Microanatomy are especially encouraged. This search will remain open until the position is filled, but the first review cycle will consider applications received by January 2, 1995. Applicants should send a current curriculum vitae and the names and addresses of four references to:

Richard Wiggins, Chair  
Department of Anatomy  
WVU School of Medicine  
Robert C. Byrd Health Sciences Center  
P.O. Box 9128  
Morgantown, WV 26505-9128

*An Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.*

### UNIVERSITY OF CALIFORNIA, SANTA CRUZ Department of Biology

Applications are invited for a tenure-track faculty position beginning fall 1995, contingent upon available funding. Minimum qualifications: Ph.D. or equivalent in Biology or a related field, postdoctoral research experience, university teaching experience, or demonstrated potential. The successful applicant will be expected to mount a vigorous externally funded research program and contribute to teaching at the graduate and undergraduate levels.

**ASSISTANT PROFESSOR** in invertebrate biology, No. 0494: We are especially interested in applicants, from any relevant discipline, who are likely to emphasize the faunas and resources of the Monterey Bay region in their research and teaching.

Applicants should submit a curriculum vitae, brief description of research and teaching interests, reprints, and arrange for three letters to be sent to:

Invertebrate Biology Search Committee  
Department of Biology  
225 Sinsheimer Labs  
University of California  
Santa Cruz, CA 95064

All applications must be received by no later than December 15, 1994.

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

**FACULTY POSITION**, Medicinal Chemistry and Pharmacognosy. The College of Pharmacy, The Ohio State University, invites applications for a tenure-track position in medicinal and/or natural products chemistry. Positions commensurate with experience at the **ASSISTANT** or **ASSOCIATE PROFESSOR** levels will be available for the 1995-1996 academic year. Candidates should have a Ph.D. in medicinal chemistry, pharmacognosy, chemistry, or biochemistry; postdoctoral experience is preferred. Emphasis is placed on the establishment of independent research programs capable of attracting graduate students and extramural funding and demonstration of excellence in teaching at the graduate and undergraduate levels. Applicants should submit a letter of application, a complete curriculum vitae, copy of graduate transcripts, a proposed research program, and arrange to have three letters of recommendation sent to: **Professor Robert W. Curley, Faculty Search Committee, Division of Medicinal Chemistry and Pharmacognosy, College of Pharmacy, The Ohio State University, 500 West 12th Avenue, Columbus, OH 43210-1291**. Applications will be processed as received and review of candidates will begin December 1994. *The Ohio State University is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and underrepresented minorities.*

## POSITIONS OPEN

### THE UNIVERSITY OF CALIFORNIA AT BERKELEY ASSISTANT PROFESSOR OF VIROLOGY Division of Public Health Biology and Epidemiology School of Public Health

Applications are invited for a tenure-track **FACULTY POSITION** in the Program in Infectious Diseases and Immunity beginning in 1995-96. Applicants must have a Ph.D. and/or a M.D. degree and a minimum of two years of postdoctoral research experience. Candidates must have experience in modern biological and molecular approaches to virology. The candidate is expected to develop and maintain an active and ongoing virology research program in an area that reflects urgent medical, scientific and community interests, for example, HIV, herpes simplex, etc. Duties will include developing and teaching undergraduate and graduate-level courses in addition to directing graduate student research. Candidates should initially provide a statement of interest and qualifications, detailed curriculum vitae and arrange to have at least three letters of reference sent directly to:

Chair, Search Committee for Assistant Professor of Virology  
Division of Public Health Biology and Epidemiology  
School of Public Health  
140 Earl Warren Hall  
University of California, Berkeley, CA 94720

Closing date: Postmarked prior to December 15, 1994.  
*The University of California is an Equal Opportunity/Affirmative Action Employer.*

**PLANT SYSTEMATIST/EVOLUTIONARY BIOLOGIST**—The Division of Biological Sciences, University of California, Davis, invites applications and nominations for a tenure-track **ASSISTANT PROFESSORSHIP** in the Section of Evolution and Ecology. The position could include an appointment in the Agricultural Experiment Station. Candidates must have a Ph.D. (or equivalent) in biological sciences or a related field. Candidates are expected to have an outstanding, innovative research program in plant systematics and evolutionary biology, and to have a strong knowledge of plant diversity. Teaching responsibilities include a general course in plant systematics, emphasizing principles and including a broad survey of angiosperm evolution, participation in the introductory curriculum in general biology and/or evolution, and specialized courses at the graduate level. Applicants should send (1) a curriculum vitae, (2) copies of published and in press manuscripts, (3) a description of current and projected research interests, and (4) a summary of teaching interests and experience, and have three letters of recommendation sent to: **Dr. James Doyle, Chair, Plant Systematics and Evolution Search Committee, Section of Evolution and Ecology, University of California, Davis, CA 95616-8755**. Closing Date: Open until filled, but all application materials, including letters of recommendation, must be received before November 30, 1994, to be assured full consideration. The University of California is interested in candidates who reflect the highest standards of scholarship and professional activities and does not discriminate on the basis of race, color, national origin, religion, sex, disability, age, or sexual orientation. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

### PLANT ECOLOGIST

The Department of Botany invites outstanding applications for a tenure-track position as an **ASSISTANT PROFESSOR** to develop innovative, experimental research in ecophysiology or ecosystem analysis involving (but not restricted to) southwestern arid ecosystems and complementary to departmental strengths. The individual is expected to develop a vigorous, externally funded research program and to contribute to both undergraduate and graduate teaching in ecology. Applicants must have a Ph.D. degree, postdoctoral experience, evidence of research productivity, and good communication skills. Salary and start-up funds as well as existing equipment and laboratories are excellent. Application evaluation will begin December 1, 1994, and the first day of every month until the position is filled. Please submit curriculum vitae, names and addresses of three referees and a statement of research interests to: **Ecologist Search Committee, Department of Botany, Box 871601, Arizona State University, Tempe, AZ 85287-1601**. (Call 602-965-3414 for departmental information.) *Arizona State University is an Equal Employment Opportunity/Affirmative Action/Title IX Employer.*



## POSITIONS OPEN

### UNIVERSITY OF CALIFORNIA, SANTA CRUZ Department of Biology

Applications are invited for two tenure-track faculty positions beginning fall 1995, contingent upon available funding. Minimum qualifications: Ph.D. or equivalent in Biology or a related field, postdoctoral research experience, university teaching experience, or demonstrated potential. The successful applicant will be expected to mount a vigorous externally funded research program and contribute to teaching at the graduate and undergraduate levels.

**ASSISTANT PROFESSOR** in Cell Biology, No. 0501: Applicants who use molecular, genetic or biochemical approaches to investigate fundamental problems in cell biology are encouraged to apply.

**ASSISTANT PROFESSOR** in Molecular Genetics of Development, No. 0487: We are seeking an individual whose research centers on problems involving the molecular biology of development. We especially encourage applicants using molecular genetic approaches.

Applicants should submit a curriculum vitae, brief description of research and teaching interests, reprints, and arrange for three letters of recommendation to be sent to:

Molecular Genetics of Development  
Search Committee or  
Cell Biology Search Committee  
Department of Biology  
225 Sinsheimer Labs  
University of California  
Santa Cruz, CA 95064

All applications must be received by no later than December 15, 1994.

Candidates applying for both positions may submit one application, but **MUST** indicate that they want to be considered for both positions.

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

### TWO POSITIONS IN BIOLOGY PLANT GENETICS/ANIMAL CELL BIOLOGY BARNARD COLLEGE

The Department of Biological Sciences at Barnard College, Columbia University is seeking two full-time **ASSISTANT PROFESSORS** to participate in undergraduate teaching and conduct an active research program, starting September 1995: (1) a plant geneticist who utilizes cellular and molecular techniques with primary responsibility for the upper-level courses in genetics and (2) an animal cell biologist (preferably specializing in insects or other invertebrates) who studies fine structure and who will teach the upper-level courses in cell biology. Candidates should be broadly trained and able to rotate into the general biology courses and senior seminars as well as teach courses in area of specialty. Ph.D. required; postdoctoral research and prior teaching experience desirable.

Submit curriculum vitae, list of publications, statement of research and teaching experience, three representative publications and three letters of recommendation to: **Mrs. Lorrin Johnson, Department of Biological Sciences, Barnard College, 3009 Broadway, New York, NY 10027. Telephone: 212-854-2437.** The department will begin reviewing applications December 1, 1994. *An Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are encouraged to apply.*

**BIOLOGY, ASSISTANT PROFESSOR.** The Department of Biology at Agnes Scott College invites applications for a tenure-track position in ecology/plant systematics starting August 1995. Teaching responsibilities include courses in plant systematics, ecology, environmental biology, and introductory-level biology. The candidate is expected to establish an ongoing research program and to provide research opportunities appropriate for undergraduate participation. Candidates are expected to have completed the Ph.D. by the time of appointment.

Agnes Scott College is a Presbyterian-affiliated, liberal arts college for women located in metropolitan Atlanta, Georgia. To ensure full consideration, applications should be received by the extended deadline: November 21, 1994. Send letter of application describing teaching interests and scholarly plans; curriculum vitae; and names, addresses and telephone numbers of three professional references to: **Dr. John Pilger, Agnes Scott College, 141 East College Avenue, Decatur, GA 30030-3797.** *Agnes Scott has a strong commitment to diversity and urges members of underrepresented groups to apply. An Equal Opportunity Employer.*

## POSITIONS OPEN

### FACULTY POSITIONS UNIVERSITY OF HOUSTON

The Department of Pharmacological and Pharmaceutical Sciences at the University of Houston has tenure-track faculty positions available at the rank of **ASSISTANT/ASSOCIATE PROFESSOR**. Applicants must have an earned doctorate degree and postdoctoral research experience. We are interested in individuals who employ cellular and molecular biological approaches to study receptor regulation and signal transduction. Current departmental areas of research interest include the cellular physiology of aging, synaptic plasticity, signal transduction, regulation of membrane transport proteins and receptors, and novel drug delivery systems. Rank and salary will be commensurate with experience. The successful candidate will be expected to develop a vigorous, independent, extramurally funded research program and must have a strong commitment to professional and graduate teaching. Candidates should submit a letter of application, a curriculum vitae and a summary of research objectives to: **Douglas C. Eikenburg, Ph.D., Chair, Search Committee, Department of Pharmacological and Pharmaceutical Sciences, College of Pharmacy, University of Houston, Houston, TX 77204-5515.** Review of applications will begin December 1, 1994, and continue until the positions are filled. *The University of Houston is an Equal Opportunity/Affirmative Action Employer; minorities, women, veterans and persons with disabilities are encouraged to apply.*

### CLARE BOOTHE LUCE PROGRAM AWARD JUNIOR FACULTY POSITION FOR WOMEN UNIVERSITY OF NOTRE DAME COLLEGE OF SCIENCE

Applications are invited for the Clare Boothe Luce Professorship within the College of Science at the University of Notre Dame. The search for this tenure-track **ASSISTANT PROFESSOR** position is necessarily restricted by the Clare Boothe Luce bequest to the Henry Luce Foundation to women who are U.S. citizens and open to the areas present in our Departments of Biological Sciences, Chemistry and Biochemistry, Mathematics, and Physics. Candidates should have a Ph.D. and a research record commensurate with the expectations of a chair position at this rank. The new faculty member will be appointed to one of the above departments. She will be expected to develop an independent research program and participate in the teaching of students at the graduate and undergraduate levels. Research space appropriate for need and competitive start-up funds are available; additionally, the Clare Boothe Luce Professor will have an excellent starting salary and a significant discretionary fund. Interviewees will meet with members of the appropriate department and additionally with the Clare Boothe Luce Professor Selection Committee from the College of Science. Applications, including a curriculum vitae, a list of publications, a statement of research interests and plans, and three letters of reference should be received by **Professor Kathie E. Newman, Associate Dean, College of Science, University of Notre Dame, Notre Dame, IN 46556** prior to January 1, 1995. The selection process will be completed by February 15, 1995. *University of Notre Dame is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT PROFESSOR OF ENTOMOLOGY

**INSECT TOXICOLOGY:** (12-month, tenure-track; 33% teaching/67% research). Incumbent expected to develop major research and graduate training program in a fundamental area of insect toxicology and contribute significantly to departmental programs in IPM and insect physiology/molecular biology. Teaching responsibilities include a graduate course in Insect Toxicology and participation in departmental and interdisciplinary undergraduate courses related to pesticide actions. Minimum qualifications include a Ph.D. with demonstrated expertise in insect toxicology. Postdoctoral experience is desirable. To Apply: Send curriculum vitae, letter of application describing research/teaching goals and interests, selected reprints (three), and names and addresses of four references to: **Insect Toxicology Search Committee, c/o Dr. Ray Frisbie, Professor and Head, Department of Entomology, Texas A&M University, College Station, TX 77843-2475. Telephone: 409-845-2510; FAX 409-845-6305; Email: LLKEELEY@TAMU.EDU.** Closing Date: January 15, 1995.

*Texas A&M University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### MOLECULAR BIOLOGIST

Hope College has a tenure-track position in molecular biology beginning August 1995. Appointment is expected at the **ASSISTANT PROFESSOR** level. Applicants must have a strong interest in undergraduate liberal arts education. The successful candidate will teach molecular biology, either genetics or microbiology, and will be involved in teaching introductory biology. The appointee will be expected to involve undergraduates in an active research program which uses the techniques of molecular biology and will be expected to seek extramural funding to support her/his research program. Preference will be given to candidates who have postdoctoral experience.

Hope College is a distinguished liberal arts college with an enrollment of 2,600 and a faculty of more than 180. Hope College maintains a strong tradition of "teaching through research" in the sciences. Hope College is affiliated with the Reformed Church in America.

Qualified applicants should arrange to have a curriculum vitae, transcripts, a statement of teaching competencies and philosophy, an outline of proposed research, and three letters of recommendation forwarded to: **Dr. Paul Van Faasen, Chair, Department of Biology, Hope College, 35 East 12th Street, P.O. Box 9000, Holland, MI 49422-9000.**

We will begin reviewing applications on December 1, 1994, and plan to make an appointment as soon as feasible thereafter.

*Hope College complies with all legal requirements prohibiting discrimination in employment. Women and persons of color are strongly urged to apply.*

Hiram College invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level to begin August 1995. The primary area of responsibility will be **MOLECULAR BIOLOGY** and **GENETICS**. We are looking for candidates whose background and interests would allow them to teach courses from among the following additional areas: microbiology, immunology, developmental biology, biology for non-majors, and interdisciplinary courses. Successful candidates should have a Ph.D., a strong dedication to teaching at the undergraduate level, and will be expected to involve undergraduates in research. The Biology Department has a fully equipped molecular biology laboratory, including a GC-MS, an HPLC and a scanning electron microscope. The department also maintains a 260-acre field station, located three miles from campus, which includes a field laboratory building and a pond-observation/group-meeting facility. Hiram College is a small selective undergraduate liberal arts college located in rural northeast Ohio and is 45 minutes from Cleveland, Akron, and Youngstown. The college is nationally recognized for its strong undergraduate biology program and for its commitment to interdisciplinary programs. Send letter of application, curriculum vitae, statement of philosophy on teaching and research, transcripts, and three letters of reference to: **Dr. Matthew H. Hils, Biology Department, Hiram College, Hiram, OH 44234.** Deadline for receipt of applications is 30 December 1994. *Hiram College is an Equal Opportunity Employer and encourages applications from women and minorities.*

### PLANT MOLECULAR BIOLOGY UNIVERSITY OF MARYLAND COLLEGE PARK

The Department of Botany invites applications for a nine-and-a-half month, tenure-track position at the preferred rank of **ASSISTANT PROFESSOR** starting August 1995. Higher ranks will be considered for exceptional candidates with appropriate credentials. We are seeking an outstanding molecular biologist who is investigating fundamental problems in plant biology. The successful candidate is expected to develop a nationally recognized, externally funded research program, and to teach an introductory course in the biology program and advanced courses in plant molecular biology. Applicants must have a Ph.D. degree and postdoctoral experience is highly desirable. Applicants should submit curriculum vitae, concise statements of research goals and teaching interests, and key reprints, and should request that three letters of reference be sent no later than 9 January 1995 to: **Dr. Todd Cooke, Chair Molecular Biologist Search Committee, Department of Botany, University of Maryland, College Park, MD 20742-5815. FAX: 301-314-9082.** *The University of Maryland is an Affirmative Action/Equal Opportunity Employer. Qualified women and minority candidates are encouraged to apply.*

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### **PRINCIPAL SCIENTIST** *Allergy*

As a key member of our Allergy Group, you will be part of a team of cellular and molecular biologists working to discover novel chemical entities for the treatment of asthma and related disorders. To qualify, you need to be an outstanding scientist with demonstrated ability to initiate and lead investigation into the structure-activity relationships of receptor proteins. You also need a PhD in Molecular Biology or Biochemistry and at least 5 years of postdoctoral experience. Background must include proven experience with site-directed mutagenesis and other molecular biology techniques for the study of protein structure-activity relationships. For consideration, please respond to: Dept. DD94-23.

### **SENIOR SCIENTIST** *Cardiovascular*

Excellent opportunity for a scientific professional to join our Atherosclerosis Group. To qualify, you need a PhD in Biochemistry, Cell Biology or Molecular Biology and 0-4 years of postdoctoral experience. Background must include expertise in the elucidation of signal transduction mechanisms in cells of both normal and diseased vascular walls. For consideration, please respond to: Dept. DD94-27.

### **SENIOR SCIENTIST** *Structural Chemistry-Biochemistry*

As a member of a protein biochemistry team involved in structure-based drug design, you will provide support in protein microtechniques using the latest instrumentation. To qualify, you need a PhD in Biochemistry and 0-4 years of postdoctoral experience. Background must include expertise in microbore HPLC, protein sequencing, amino acid analysis and electrophoresis. For consideration, please respond to: Dept. DD94-19.

### **ASSISTANT SCIENTIST** *Tumor Biology*

We seek an analytical self-starter with a BS in Biology and 2-4 years of experience or an MS and 0-2 years of experience to join a scientific team engaged in cancer research. Expertise with tissue culture, protein purification/characterization and enzyme assays a must. Familiarity with molecular biology techniques preferred. For consideration, please respond to: Dept. DD94-20.

We offer an excellent compensation package including a competitive salary and comprehensive benefits. For prompt, confidential consideration, we invite you to forward a resume, indicating the Dept. Code for your position of interest and salary requirements to: Human Resources-BG, Schering-Plough Research Institute, K15/MS 1255, 2015 Galloping Hill Road, Kenilworth, NJ 07033-0539. We are an equal opportunity employer. *We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.*



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## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR OF MEDICINAL CHEMISTRY/BIOCHEMISTRY

The Medicinal Chemistry/Biochemistry Division of the School of Pharmacy, University of Wisconsin-Madison, invites applications for a tenure-track position to begin between July 1 and August 1, 1995. The position is likely to be filled at the **ASSISTANT PROFESSOR** level but outstanding candidates at the **ASSOCIATE PROFESSOR** level will be considered. A Ph.D. degree in biochemistry, chemistry or medicinal chemistry, postdoctoral research experience, and outstanding research potential are required. Applicants who would establish an independent research program in one of the following areas—modulation of receptor or gene function by small molecules with a potential for development into new types of drug therapy; structure/function studies of drug receptors or other macromolecular targets aided by site-directed mutagenesis, molecular modeling and crystallographic or spectroscopic methods; synthesis and evaluation of novel macromolecular ligands with a potential for use in approaches to gene therapy; novel approaches to combating drug resistance—are preferred but all outstanding candidates will be considered. Teaching duties will be in the current undergraduate courses offered by the divisional faculty and in a graduate course to be devised by the new faculty member.

Applications will be accepted until December 1, 1994. Please send a cover letter including a statement of research and teaching interests, curriculum vitae, selected reprints and the names, addresses, and telephone or Email numbers of three references to: **Prof. C. R. Hutchinson, Search Committee, School of Pharmacy, University of Wisconsin, 425 North Charter Street, Madison, WI 53706. Telephone: 608-262-7582; crhutchi@facstaff.wisc.edu.** Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality. *The University of Wisconsin-Madison is an Equal Opportunity Employer.*

### RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER RUSH MEDICAL COLLEGE

The Department of Pharmacology at Rush-Presbyterian-St. Luke's Medical Center in Chicago invites applications for **ASSISTANT PROFESSOR** and **ASSOCIATE PROFESSOR** tenure-track positions from individuals interested in cellular and molecular aspects of vascular and lung biology. We encourage applications in the area of regulation of endothelial adhesion molecules, biology of extracellular matrix, signal transduction mechanisms, control of microcirculation, and gene transfer in the vascular endothelium. Collaborations within the medical center are extensive. Competitive start-up funds will be available to the successful applicants. It is expected that the candidate will have existing extramural support or would be highly competitive for funding. Applications will be reviewed starting immediately and will continue until suitable candidates are identified. Candidates should submit a curriculum vitae, statement of research interests, and the names of three references to:

**Dr. A. B. Malik, Chairman**  
Department of Pharmacology  
Rush-Presbyterian-St. Luke's Medical Center  
Rush Medical College  
1750 West Harrison Street, Suite 1589 Jclke  
Chicago, IL 60612

*Rush-Presbyterian-St. Luke's Medical Center is an Affirmative Action/Equal Opportunity Employer.*

### STRUCTURAL BIOLOGIST

As part of a major commitment to the development of structural biology at the University of Pennsylvania, the Department of Biochemistry and Biophysics invites applications for a tenure-track **ASSISTANT PROFESSOR** position in X-ray crystallography. Applicants should have demonstrated expertise and accomplishments in modern macromolecular diffraction with a strong background in protein and/or nucleic acid structure. Please forward curriculum vitae and a statement of background and future scientific intentions, and have three letters of recommendation sent to: **Ms. Caryn Stivelman, Johnson Research Foundation, B501 Richards Building, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6089.** *The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer. Applications from women and minorities are encouraged.*

## POSITIONS OPEN

### GENETICS BALL STATE UNIVERSITY MUNCIE, INDIANA

Applications are invited for a tenure-track position in genetics at the **ASSISTANT/ASSOCIATE PROFESSOR** level in the Department of Biology available fall 1995. Candidates are expected to have a commitment to excellence in teaching and to be broadly trained in genetics. Rank of assistant professor or associate professor is dependent upon qualifications and experience. Responsibilities: teach courses in general genetics, human genetics, and introductory biology; conduct research in specialty area (not excluding genetics education) and promote student involvement in research; and be an active member of the academic community. Preference will be given to candidates whose research does not involve the use of warm-blooded animals. Minimum qualifications: earned doctorate by August 21, 1995, in a biological science with broad training in genetics and effective written and oral communication skills. Preferred qualifications for assistant professor rank, required for associate professor rank: demonstrated teaching ability and publications and/or evidence of scholarly activity. Submit curriculum vitae, documentation of scholarly activity, transcripts, and three (3) letters of reference to: **Chair, Genetics Search and Selection Committee, Department of Biology, Ball State University, Muncie, IN 47306.** Review of applications will begin January 20, 1995, 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 PROFESSORS MOLECULAR BIOLOGY OR MOLECULAR GENETICS

Two tenure-track faculty positions for talented and highly motivated molecular biologists or molecular geneticists are available with a January 1995 start date. We are looking for candidates with outstanding training records and significant research accomplishments. Qualifications must include an earned doctorate in Biochemistry, Molecular Biology, or Molecular Genetics, and at least two years of postdoctoral training. Preferences will be given to applicants with transferable NIH or NSF research grants. Successful candidates will be expected to develop independent research programs of international stature, to seek interactions and collaborations with other members of the Department, and to teach in both our Ph.D. and M.D. degree programs. Applicants should submit a résumé, a statement of research interests and plans, and the names and full addresses of three to five scientists who may be contacted for references. All materials should be sent to: **Prof. Kelvin J. A. Davies, Chair, Department of Biochemistry & Molecular Biology, The Albany Medical College, New Scotland Avenue, Albany, NY 12208.** *Women and minority candidates are encouraged to apply and to identify themselves. The Albany Medical College is an Equal Opportunity/Affirmative Action Employer.*

### MOLECULAR BIOLOGIST/GENETICIST POSITION

The Hypertension Research Center of the University of Medicine and Dentistry of the University of Medicine and Dentistry of New Jersey-New Jersey Medical School is seeking an individual at the rank of **ASSISTANT** or **ASSOCIATE PROFESSOR** (M.D. or Ph.D. degrees) with a background in Molecular Biology/Genetics, whose prime interest is essential hypertension. Candidates with a track record in basic research related to the cardiovascular system should send curriculum vitae to: **Abraham Aviv, M.D., University of Medicine and Dentistry of NJ-NJ Medical School, Hypertension Research Center, 185 South Orange Avenue, Room F-464, Newark, NJ 07103-2714.**

**BIOLOGIST:** William Jewell College invites applications for a tenure-track **ASSISTANT/ASSOCIATE PROFESSORSHIP** in biology beginning fall 1995. Qualifications: Ph.D. in biology with strong preparation in physiology, anatomy, cell biology and development; strong commitment to teaching and directing undergraduate research. Postdoctoral experience preferred. Contact: **Dr. Judith Dilts, Chairperson, Department of Biology, William Jewell College, Liberty, MO 64068; 816-781-7700; by 1 December 1994.** *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### PEDIATRIC ONCOLOGIST ASSISTANT OR ASSOCIATE PROFESSOR LEVEL

The Cancer Institute of New Jersey and the Department of Pediatrics at the University of Medicine and Dentistry of New Jersey (UMDNJ)-Robert Wood Johnson Medical School is seeking an M.D. or M.D./Ph.D. physician scientist to develop a research program in pediatric oncology. Preference given to individual with strong background in molecular pharmacology/toxicology or drug development, and an established track record of grant support. Generous start-up funds and laboratory space are available. Please send curriculum vitae to: **George Lambert, M.D., Chairman, Search Committee, UMDNJ-Robert Wood Johnson Medical School, Department of Pediatrics-EOHSI, Division, Pediatric Pharmacology and Toxicology, 681 Frelinghuysen Road, P.O. Box 1179, Piscataway, NJ 08855-1179.** *UMDNJ is an Affirmative Action/Equal Opportunity Employer and a member of the University Health System of New Jersey. Male/Female/Disabled/Veterans. Minorities and women are encouraged to apply.*

### TENURE-TRACK ASSISTANT PROFESSOR TUFTS UNIVERSITY PHYSIOLOGICAL ECOLOGIST

The Department of Biology at Tufts University invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level for the fall of 1995. Applicants must have a Ph.D., teaching experience desirable. The successful candidate is expected to develop and maintain an active research program in animal or plant physiological ecology that includes evolutionary and/or molecular approaches. Possible areas of research include but are not limited to physiological ecology, behavioral physiology, or functional morphology. Teaching duties include designing and implementing of the laboratory portion of a second semester introductory biology course for majors and teaching an intermediate course in the person's area of expertise. Applications should include curriculum vitae, reprints of up to three publications, and a statement of present and future research plans and teaching interests. Completed applications and three letters of recommendation should be sent to: **Professor Harry Bernheim, Biology Search Committee, Tufts University, Medford, MA 02115** and received by December 16, 1994. *Tufts University is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR BIOLOGY DEPARTMENT WILLIAMS COLLEGE

Tenure-track position beginning July 1995 for a **DEVELOPMENTAL BIOLOGIST** with the ability to teach courses at the introductory level and at the upper level in developmental biology and cell and molecular biology or biochemistry. The standard course load in the department is one course and two laboratory sections, or an equivalent load, per semester. Faculty members are expected to establish an independent research program that can attract external funding and involve undergraduates.

Postdoctoral experience and a strong academic research record are required. Please send curriculum vitae, one-page statements of teaching and research interests, and three letters of recommendation by December 1, 1994, to: **Search Committee, Department of Biology, Williams College, Williamstown, MA 01267.**

*An Equal Opportunity/Affirmative Action Employer, Williams College especially welcomes applications from women and minority candidates.*

Faculty Member, Department of Hematology, University of Texas M. D. Anderson Cancer Center. An **ASSISTANT PROFESSOR** is sought for the expansion and continuation of our programs for acute and chronic leukemias. Our service accrues 600 new patients per year and does 400 transplants per year. The position includes direct patient care, clinical research, and the teaching of trainees in medical oncology, and laboratory research if applicable. Applicants must be Board-eligible or Board-certified in Hematology or Medical Oncology. An attractive salary is proposed for entry level candidates. Interested individuals should send their curriculum vitae to: **Dr. Albert Deisseroth, Department of Hematology, Box 24, University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.** *An Equal Opportunity/Affirmative Action Employer. Smoke-free Environment.*



**P**

*ioneer Hi-Bred International, Inc., is a world leader in agricultural genetics. Founded in 1926, we are a publicly-held corporation with research, production and sales organizations worldwide. Our dynamic RESEARCH AND PRODUCT DEVELOPMENT DIVISION is currently seeking motivated and experienced professionals to join us in our on-going program of crop improvement.*

## RESEARCH ASSOCIATE

### **Plant Biochemistry (Job #1028S)**

Position provides an opportunity for a plant biochemist to work in the general area of crop protection. Candidates should have the following qualifications: MS with 2 years or Bachelor's degree with 4 years laboratory experience involving isolation and identification of plant metabolites, protein purification, and enzymology. Familiarity with TLC, HPLC, GLC, PAGE, and microcomputers. Excellent technical and interpersonal communication skills necessary. (APPLICATION DEADLINE IS NOVEMBER 15, 1994, OR WHEN A SUITABLE CANDIDATE HAS BEEN FOUND)

## RESEARCH ASSOCIATE

### **Protein Purification (Job #1029S)**

Position provides an opportunity for a biochemist in the area of crop protection. Bachelor's degree in chemistry or biochemistry and at least 2 years experience in protein purification are required, as well as familiarity with HPLC, PAGE, enzyme assays, microbiological techniques and microcomputers. Excellent interpersonal skills, high motivation level, and ability to work in a team environment are essential. (APPLICATION DEADLINE IS NOVEMBER 15, 1994, OR WHEN A SUITABLE CANDIDATE HAS BEEN FOUND)

## RESEARCH ASSOCIATE

### **Soybean Genetic Markers (Job #1009S)**

Responsibilities involve planning, conducting, and reporting of genetic-marker experiments with application to soybean breeding and the development of DNA-marker technology. Requirements include an MS in a biological science and experience collecting and analyzing genetic-marker data, or a BS in a biological science with 3+ years directly related experience. Knowledge of DNA chemistry, plant breeding, and quantitative, qualitative, and molecular genetics is desirable. Effective organization and communication skills are necessary. (APPLICATION DEADLINE IS NOVEMBER 31, 1994)

## RESEARCH ASSOCIATE

### **Vector Construction (Job #1028S)**

Responsibilities will be to provide support in the design and construction of plasmid vectors for plant gene expression. Candidates must have knowledge of cloning and molecular techniques including DNA purification, restriction enzyme analysis, site-directed mutagenesis, cloning methods, PCR, and bacterial transformation. EDUCATION/EXPERIENCE: BS or MS degree in biological science or related science area or equivalent directly related lab experience. 2 years directly related lab experience needed in addition to BS degree. Candidates need to be familiar with computer sequence analysis and have strong communication and organizational skills. (APPLICATION DEADLINE IN NOVEMBER 21, 1994)

## RESEARCH PLANT PATHOLOGIST

### **Corn (Job #1032S)**

Conduct a comprehensive pathology program working with company corn breeders and pathologists in developing commercial products. Job includes planning and supervising field and lab experiments which screen corn germplasm; identify sources of resistance; develop inoculation methods; record data and produce catalogs; pathogen identification; provide pathology support for winter nurseries and overseas locations; provide consultation to company personnel. Ph.D. in plant pathology or related area required with 5 years of work experience. Requires basic understanding of plant breeding and statistics. Candidates must have good communications skills. Please include resume, transcripts and names of 3 references with your application. (APPLICATION DEADLINE IS NOVEMBER 21, 1994)

We offer excellent compensation, benefits and career growth potential, as well as excellent facilities and a highly cooperative research environment. Please send cover letter indicating job number and C.V. by the respective deadline to: **Gary Walljasper, Workforce Manager, Pioneer Hi-Bred**

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Parkway, P.O. Box 212, Johnston, IA  
50131-0212. We are an Equal  
Opportunity Employer.**

## POSITIONS OPEN

### CLINICAL MICROBIOLOGIST

Applications are invited for a tenure-track position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** rank in the area of veterinary clinical microbiology in the Department of Microbiology at Colorado State University. Duties will be divided between clinical microbiology service at the Colorado State Veterinary Diagnostic Laboratory (50%), and teaching and research activities (50%). Candidates should possess the Ph.D., D.V.M./Ph.D., or equivalent degree in microbiology; postdoctoral experience in a sub-specialty of clinical microbiology (i.e., bacteriology, virology, or immunology) is highly desirable. Candidates should have interests in supervising diagnostic microbiology services and in developing an innovative research program employing molecular techniques for investigation of infectious disease problems. Teaching will be expected in the Professional Veterinary Medical curriculum, and the graduate program in the Department. Submit a curriculum vitae, a summary of career interests, and request that three letters of recommendation be sent to: **Dr. James K. Collins, Chair of the Search Committee, Department of Microbiology, Colorado State University, Fort Collins, CO 80523.** Closing Date: December 31, 1994. Colorado State University is an Equal Opportunity/Affirmative Action Employer. Office: 21 Spruce Hall.

### PLANT ECOLOGY

**McMaster University—Royal Botanical Gardens**

We are reopening our search for candidates for a probationary tenure-track position at the **ASSISTANT PROFESSOR** level in the Department of Biology at McMaster University, with a research appointment at the Royal Botanical Gardens. The successful candidate will be expected to establish an independent research program in plant ecology. Duties include teaching undergraduate plant ecology and plant physiology courses and participation in graduate courses. Interested applicants should submit a curriculum vitae, a brief description of teaching experience and future research program, and the names and addresses of three referees before January 6, 1995.

**Chair of Search Committee**

**Department of Biology**

**McMaster University**

**1280 Main Street West**

**Hamilton, Ontario L8S 4K1 Canada**

Appointment is subject to final budgetary approval. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. McMaster University and the Royal Botanical Gardens are committed to employment equity and encourage applications from all qualified candidates, including aboriginal peoples, persons with disabilities, members of visible minorities and women.

### CALIFORNIA INSTITUTE OF TECHNOLOGY

invites applications for a tenure-track position as **ASSISTANT PROFESSOR** of Biochemistry in the Division of Chemistry and Chemical Engineering with an emphasis on, but not restricted to, the biochemistry, structure and dynamics of macromolecular assemblies. The initial appointment will be for four years. Outstanding individuals with a Ph.D. and a strong commitment to research and teaching excellence are encouraged to apply. Submit curriculum vitae, publication list, a description of proposed research, and three letters of recommendation to: **Professor D. C. Rees, Division of Chemistry and Chemical Engineering 147-75CH, California Institute of Technology, Pasadena, CA 91125.** The California Institute of Technology is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.

**ASSISTANT PROFESSOR** of Chemistry, Rice University. (Tenure-track) Imaginative and energetic candidates are sought in inorganic chemistry, organic/bioorganic chemistry, and experimental physical nanotechnology. Emphasis will be placed on innovative research programs which transcend traditional boundaries, especially programs concerned with the study of matter on a nanometer scale. Candidates should send letters of recommendation, a résumé, and description of their proposed research program to: **Faculty Search Committee, Chemistry Department, Rice University, Houston, TX 77251-1892.** Rice University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### FACULTY POSITIONS UNIVERSITY OF MONTANA

The Division of Biological Sciences invites applications for two tenure-track positions at the **ASSISTANT** or recent **ASSOCIATE PROFESSOR** level.

**ENVIRONMENTAL MICROBIOLOGIST** specializing in the diversity and function of *in situ* microbial processes. Teaching consists of undergraduate courses, including microbial physiology, and a graduate course in microbiology/biochemistry.

**BIOCHEMIST** doing research on biochemical mechanisms of resistance of pathogenic organisms to antimicrobial agents. Teaching includes undergraduate courses and a graduate course in biochemistry/microbiology.

Successful candidates will be expected to establish a vigorous research program and aggressively pursue extramural support. Screening will begin 15 December 1994 and continue until positions are filled. Send letter of application, curriculum vitae, statement of research goals, and three letters of reference to the **Environmental Microbiology or Biochemistry Search Committee, Division of Biological Sciences, University of Montana, Missoula, MT 59812.** FAX: 406-243-4184. The University of Montana is an Affirmative Action/Equal Opportunity Employer.

### ASSISTANT PROFESSOR Aquatic Ecologist

Anticipated tenure-track **ASSISTANT PROFESSOR** position, starting August 1995, "Pending Final Approval." Outstanding candidates in all areas of aquatic (marine and/or freshwater) ecology will be considered, but we are especially interested in the area of ecotoxicology. The candidate's expertise in the fate and effects of environmental contaminants may range from molecular or biochemical approaches to the response of ecological systems. Ph.D. or equivalent degree in a biological science is required. Postdoctoral research and teaching experience preferred. The successful candidate is expected to develop a strong, independent research program with extramural support, and have a commitment to teaching excellence. Candidates should submit a statement of research interests, teaching philosophy, curriculum vitae and names of three references by December 7, 1994, or until position is filled, to: **Faculty Search Committee, Department of Zoology and Physiology, Louisiana State University, Baton Rouge, LA 70803-1725.** Louisiana State University is an Equal Opportunity/Affirmative Action Employer.

### NEUROBIOLOGIST

The Department of Cell Biology, Neurobiology and Anatomy, University of Cincinnati College of Medicine, invites applications for a tenure-track position at either the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. We seek an outstanding scientist with expertise in developmental neurobiology or neuroendocrinology, using cellular, molecular or pharmacological approaches. Applicants must have a Ph.D., postdoctoral experience and a strong publication record. The successful candidate will be expected to establish a vigorous, independent research program with extramural funding, and participate in the graduate and medical Neuroscience teaching program. The position offers a competitive salary and laboratory start-up package. Applicants should send curriculum vitae, a concise statement of research plans, and three letters of reference to: **Dr. Michael Lehman, Chair, Search Committee, Department of Cell Biology, Neurobiology and Anatomy, University of Cincinnati College of Medicine, P.O. Box 670521, Cincinnati, OH 45267-0521.** University of Cincinnati is an Affirmative Action/Equal Opportunity Employer.

### ASSISTANT RESEARCH PROFESSOR

Applications are invited for **ASSISTANT RESEARCH PROFESSOR** to participate in research in any or all of the following areas: soft tissue wound healing, bone healing and metabolism, physiology of soft tissue circulation. Candidates must have a Ph.D. and a documented expertise in cellular or molecular biology studies with at least a minimum of experience in soft tissue/hard tissue physiology and metabolism. Send letters of interest, curriculum vitae, names and telephone numbers of three references to: **Edward A. Luce, M.D., Professor and Chief, Division of Plastic Surgery, Kentucky Clinic Suite K-454, Lexington, KY 40536-0284.**

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

## POSITIONS OPEN

### ASSISTANT PROFESSOR MOLECULAR BIOLOGY WESLEYAN UNIVERSITY

The Department of Molecular Biology and Biochemistry invites applications for a tenure-track position in molecular biology at the **ASSISTANT PROFESSOR** level. A Ph.D. and postdoctoral experience are required. Researchers using state-of-the-art molecular biological analysis to study an important aspect of eukaryotic gene regulation, cell or developmental biology are sought. The successful candidate will be expected to initiate a vigorous research program supported by extramural funds and to participate in the departmental Ph.D. program. Excellence in research and teaching at both the graduate and undergraduate levels is expected. Please send by December 16, 1994, a curriculum vitae, description of research plans and three letters of recommendation to: **Molecular Biology and Biochemistry Search Committee, 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.

**BIOCHEMIST/ASSISTANT PROFESSOR.** The University of Central Arkansas Chemistry Department invites applications for a tenure-track position to join an eleven-member department for the fall 1995 semester. The successful candidate must have the Ph.D. in biochemistry at the beginning of the appointment and a strong commitment to effective teaching at the undergraduate level. In addition to biochemistry, course responsibilities will include organic chemistry or health-science chemistry. Scholarly activity including direction of undergraduate research is expected.

Send letter of application including the names, addresses, and telephone numbers of three current references along with a current curriculum vitae, graduate transcripts, and brief statements of educational philosophy and of research plans to: **Dr. Conrad Stanitski, Department Chair, University of Central Arkansas, Conway, AR 72035.** Review of applications will begin November 21, 1994, and continue until the position is filled. The position is contingent upon funding. University of Central Arkansas is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT PROFESSOR—PHYSICS

The Department of Physics, Illinois Benedictine College, is planning to hire a tenure-track position **ASSISTANT PROFESSOR** for fall 1995. Ph.D. required with a research interest in molecular modeling. Duties include: teaching introductory physics for life/health science majors, course development in biophysics, establishing and participating in faculty/student research programs in biophysics and molecular modeling.

Illinois Benedictine College is a liberal arts college located in the research corridor of metropolitan Chicago with nationally recognized programs in the sciences. Initially, applicants should send curriculum vitae and a statement of teaching and research interests by November 23, 1994, to: **Dr. Duane Buss, Chairman, Search Committee, Illinois Benedictine College, 5700 College Road, Lisle, IL 60532.** Telephone: 708-960-1500 x1562. Illinois Benedictine College is an Affirmative Action/Equal Opportunity Employer; women and minority candidates are especially encouraged to apply.

### MOLECULAR BIOLOGIST ASSISTANT PROFESSOR

The Department of Biological Sciences at Mary Washington College is seeking a molecular biologist for a tenure-track appointment at the **ASSISTANT PROFESSOR** level beginning with the fall semester of 1995. Applicants are expected to have a Ph.D. degree or equivalent terminal degree and must be committed to excellence in teaching. Course responsibilities will include Genetics, Cell Biology and General Biology.

Mary Washington College is a liberal arts and sciences college located 50 miles south of Washington, DC. Interested persons must submit a curriculum vitae, transcripts, and brief statements of teaching philosophy and research goals, and must arrange to have three letters of reference sent directly to: **Personnel Office, Mary Washington College, Box 615, Fredericksburg, VA 22401-5358.** Deadline for receipt of applications is November 23, 1994, by 5 p.m. Postmarks will not be honored.

Mary Washington College is deeply committed to Affirmative Action and encourages minorities and women to apply.

# Postdoctoral Opportunities In The Biomedical Sciences.

Listed below are a few of the outstanding opportunities for conducting research that are now available with leading scientists at the National Institutes of Health.

## **Activity-Dependent Gene Regulation** **Andres Buonanno, PhD**

The regulation of neural and skeletal muscle genes by nerve-elicited electrical activity during synaptogenesis is being investigated, with a focus on genes coding for NMDA receptors and bHLH transcription factors. Analyses of promoters in transfected cells and transgenic mice are used to identify novel regulatory trans-acting factors. Applicants should have a strong background in molecular biology and have less than five years postdoctoral experience. Laboratory of Developmental Neurobiology (OE-57), NICHD, Building 49, Room 5A38, 49 CONVENT DR MSC 4480, BETHESDA MD 20892-4480.

## **Cell Cycle Checkpoints and Cancer Chemotherapy** **Patrick M. O'Connor, PhD**

Position available to study aspects of anticancer drug interaction with cell cycle checkpoint systems. Emphasis is on molecular dissection of checkpoint control pathways and their role in chemosensitivity. Experience in molecular biology or protein biochemistry preferred. Candidates must be US citizens or permanent residents. Laboratory of Molecular Pharmacology (OE-57), NCI, Building 37, Room 5C19, 37 CONVENT DR MSC 4255, BETHESDA MD 20892-4255.

## **Developmental Biology and Toxicology** **Michael D. Shelby, PhD**

Mammalian developmental toxicity will be investigated through a combination of intramural and extramural projects. Chemicals are tested for their effects on normal mammalian development, mechanisms of toxicity are investigated, and data for assessment of risk are generated. Applicants should have a strong background in toxicology, embryology, or molecular biology and less than five years postdoctoral experience. Toxicology Branch (OE-57), NIEHS, P.O. Box 12283, MD A2-03, Research Triangle Park, NC 27709.

## **Gene Expression Regulation** **Marc Reitman, MD, PhD**

The regulation of gene clusters is currently being studied using the  $\beta$ -globin cluster. Problems under analysis include the role of distant regulatory regions, the mechanisms underlying stage-specific expression, and characterization of the DNA elements and proteins involved. Applicants should have experience in molecular biology and less than five years postdoctoral experience. Diabetes Branch (OE-57), NIDDK, Building 10, 8N250, 10 CENTER DR MSC 1770, BETHESDA MD 20892-1770.

## **Mammalian Molecular Genetics** **Steven S.-L. Li, PhD**

The organization and developmental regulation of mammalian genes, including neurogenic genes, are being investigated. Applicants should have a strong background in genetics, biochemistry, or molecular biology and less than five years postdoctoral experience. Laboratory of Molecular Genetics (OE-57), NIEHS, Building 101, Room D318, MD D3-05, P.O. Box 12233, Research Triangle Park, NC 27709.

## **Molecular and Developmental Neurobiology** **Denes Agoston, MD, PhD**

The molecular basis of phenotypic differentiation in the central nervous system is being studied at the level of protein-DNA interactions and DNA structure. Candidates are expected to have proven background in molecular biology, preferably in expression cloning. Specific areas of research include identification and isolation of genes that are uniquely expressed during neurodifferentiation. Laboratory of Developmental Neurobiology, (OE-57), NICHD, Building 49, Room 5A24, 49 CONVENT DR MSC 4480, BETHESDA MD 20892-4480.

## **Molecular Motors** **John A. Hammer, III, PhD**

Ongoing projects include cloning of unconventional myosin genes, biochemical characterization of purified myosins, analysis of myosin heavy chain structure/function relationships *in vitro* and *in vivo*, localization of myosins by light and electron microscopy, and analysis of myosin function *in vivo* using gene knockouts and antisense RNA approaches combined with analysis of cell motility using quantitative video microscopy. Applicants should have less than five years postdoctoral experience. Laboratory of Cell Biology (OE-57), NHLBI, Building 3, B1-22, 3 CENTER DR MSC 0301 BETHESDA, MD 20892-0301.

## **Additional Postdoctoral Fellowship Opportunities**

For an on-line listing of additional postdoctoral openings, you may access the NIH EDNET Bulletin Board POSTDOC conference via Internet ([wylbur.cu.nih.gov](http://wylbur.cu.nih.gov)) or modem (1,301-402-2221 or 1,800-358-2221) with parameters set at "7,Even,1". When connected to NIH, type in "vt100" for terminal emulation, "F5E" for initials, and "AJL1" for account number.

The Postdoctoral Research Fellowship Opportunities catalog, which describes intramural laboratories at the NIH, is also available by request. An electronic version of the catalog may be accessed via the Internet using either the Gopher Information System ([gopher.nih.gov](http://gopher.nih.gov)) or the World Wide Web (<http://www.nih.gov/>). When connected, select *Research Opportunities at the NIH Office of Education*. If you would like to request a catalog or have further questions, please contact the Office of Education, Building 10, Room 1C129, 10 CENTER DR MSC 1158, BETHESDA MD 20892-1158, 301-496-2427, Fax 301-402-0483.

## **To Apply**

If you hold a doctoral degree (e.g., PhD, MD/PhD, MD, DO, DDS, or DVM) accompanied by previous laboratory research experience, and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



# National Institutes Of Health

**Office Of Education**

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## POSITIONS OPEN

### ASSISTANT PROFESSOR SIGNAL TRANSDUCTION UNIVERSITY OF VERMONT

Applications are invited for a tenure-track position in the Department of Zoology. Applicants are expected to 1) hold a Ph.D. degree and have two or more years of postdoctoral experience; 2) have research experience with techniques of modern molecular biology and a primary research focus on some fundamental aspect of signal transduction; 3) develop a competitive research program in signal transduction and 4) teach physiology. Areas of expertise can range from molecular genetics to cell physiology. Applicants should forward a current curriculum vitae and brief description of their research and teaching plans and should solicit three letters of reference to be sent to: **Dr. Judith L. Van Houten, Department of Zoology, University of Vermont, Burlington, VT 05405-0086.** Review of applications will begin on November 15, 1994.

*We especially encourage women, disabled and minority candidates to apply. The University of Vermont is an Affirmative Action/Equal Opportunity Employer.*

### VASCULAR BIOLOGIST

The Department of Physiology at the University of Texas Health Science Center at San Antonio is seeking applications for a full-time tenure-track position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. The successful applicant will be expected to play a key role in the initiation of a program in the cellular, molecular or neural aspects of vascular function involving existing and new faculty. Candidates should have a proven record of excellence in independent research and be capable of interacting with existing research and teaching programs within the department. The Department consists of 18 full-time faculty covering many areas of physiology, with major interests in the physiology of cardiovascular control, aging, and cell function. Interested applicants should provide a detailed curriculum vitae and statement of research interests and have three letters of reference sent to: **Dr. John M. Johnson, Faculty Search Committee, Department of Physiology, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-7756.** The University of Texas Health Science Center is an Equal Opportunity/Affirmative Action Employer.

### INTEGRATIVE ORGANISMAL BIOLOGIST

The University of North Carolina at Chapel Hill invites applications for a tenure-track position at the level of **ASSISTANT PROFESSOR** in the Department of Biology. We seek an outstanding individual in areas such as neuroethology, comparative physiology or functional morphology. We particularly encourage applications from individuals whose focus is centered on whole organisms and who use an integrative, multidisciplinary approach to span multiple levels of biological organization and/or to understand the diversity of form and function across major taxonomic groups. The appointment will be effective July 1, 1995. Please submit a curriculum vitae, a statement of research and teaching interests, and three letters of recommendation to: **Chairman, Integrative Organismal Biology Search, Department of Biology, CB No. 3280 Coker Hall, University of North Carolina, Chapel Hill, NC 27599-3280.** Priority will be given to applications received by November 30, 1994. The University of North Carolina is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from women and minorities.

### COMPARATIVE BIOLOGIST

The Department of Zoology of Duke University seeks an integrative biologist whose work addresses comparative aspects of structure, function and/or development—preferably of vertebrates—at the organismal level. The appointment will be at the **ASSISTANT PROFESSOR** level, tenure-track. The successful candidate will be expected to maintain a vigorous research program and to develop an undergraduate course (with laboratory) in comparative biology. Interested applicants should submit a curriculum vitae, statement of research and teaching interests, three reprints of their work, and three letters of reference to: **Dr. V. Louise Roth, Chair, Comparative Biology Search, Department of Zoology, Duke University, Durham, NC 27708-0325.** Applications received by December 1, 1994, will be guaranteed consideration. Duke University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR IMMUNOLOGY/INFECTIOUS DISEASE

Louisiana State University Medical School in New Orleans is seeking applicants for a 12 month tenure-track **FACULTY POSITION** in the Department of Microbiology, Immunology and Parasitology. Applicants must have a Ph.D. or M.D. and a commitment to teach at the graduate level as well as to medical and dental students. Strong consideration will be given to candidates with a research emphasis in immunology as related to the pathogenesis of infectious diseases. We seek an individual who has demonstrated a potential to establish an independent extramurally funded research program. Applicants should submit a curriculum vitae with publications, statement of present and future research goals, and names and addresses of three references by January 15, 1995, to: **Dr. Kenneth H. Johnston, Search Committee Chair, Department of Microbiology, Immunology and Parasitology, LSUMC, 1901 Perdido Street, New Orleans, LA 70112. FAX: 504-568-2918.** The University is an Affirmative Action/Equal Opportunity Employer.

### NEUROSCIENTIST

The Department of Anatomy and Neurobiology, College of Medicine, The University of Tennessee, Memphis is seeking applications to fill an **ASSISTANT/ASSOCIATE PROFESSOR** tenure-track position. Candidate must be pursuing research program in neuroscience and must show strong evidence of research achievement. Candidate must participate in teaching of departmental courses. Rank and salary will be commensurate with qualifications. The Department is the center of a rapidly expanding, multidisciplinary neuroscience program with a highly interactive, productive group of neuroscientists. Please submit a curriculum vitae, statement of research interests, and names of three individuals who can be contacted for letters of reference to: **S. T. Kitai, Chairman, Department of Anatomy and Neurobiology, UT Memphis, 855 Monroe Avenue, Memphis, TN 38163.** Review of applications will begin November 1, 1994, and continue until the position is filled.

*The University of Tennessee is an Equal Employment Opportunity/Affirmative Action/Title IX, Section 504/ADA Employer.*

**PLANT SYSTEMATICS AND EVOLUTIONARY BIOLOGY.** The Department of Biology at the University of North Carolina at Chapel Hill invites applications for a tenure-track position in evolutionary plant systematics at the **ASSISTANT PROFESSOR** level. We especially seek applicants with broad training in plant systematics and expertise in molecular and other modern methods for investigating the phylogenetic systematics and macroevolution of plants. The appointment will be available beginning July 1, 1995. Applicants should send curriculum vitae, a concise statement of research and teaching interests, selected publications and three letters of recommendation to: **Chairman, Evolutionary Plant Systematics Search, Department of Biology, CB No. 3280, University of North Carolina, Chapel Hill, NC 27599-3280.** Priority will be given to applications received by November 30, 1994. The University of North Carolina is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from women and minorities.

### CHAIRPERSON MICROBIOLOGY AND IMMUNOLOGY SCHOOL OF MEDICINE TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

The School of Medicine at Texas Tech University Health Sciences Center invites nominations and applications for the position of **CHAIRPERSON** of the Department of Microbiology and Immunology. Candidates should have an earned doctorate degree, an established research program in microbiology/immunology and a demonstrated ability as an educator. Prior administrative experience is viewed as desirable. Applicants should include a letter of interest, a curriculum vitae, and names, addresses and telephone numbers of at least three references. Review of applications will begin on 5 December 1994 and continue until the position is filled.

Applications and nominations should be submitted to: **Dr. Louis A. Chiodo, Chairman, Department of Pharmacology, Texas Tech University Health Sciences Center, 3601 4th Street, Lubbock, TX 79430.**

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

## POSITIONS OPEN

**ASSISTANT PROFESSOR: NEUROPHARMACOLOGY/NEUROTOXICOLOGY.** The Department of Pharmacology, Toxicology and Therapeutics at the University of Kansas Medical Center invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. The applicant must have a Ph.D. or M.D. degree, with two or more years of postdoctoral experience. The successful candidate will be expected to establish an independent research program in molecular neuropharmacology/neurotoxicology and contribute to the teaching of graduate and medical students. The ideal candidate will have had training in pharmacology, neurosciences and molecular biology. Affiliations with the Center for Environmental and Occupational Health and the Mental Retardation Research Center are possible. Curriculum vitae and the names of three references should be sent to: **Dr. S. J. Enna, Department of Pharmacology, Toxicology and Therapeutics, University of Kansas Medical Center, Kansas City, KS 66160-7417.** The University of Kansas is an Affirmative Action/Equal Opportunity Employer.

### DIRECTOR ENVIRONMENTAL STUDIES PROGRAM

The University of Kansas seeks a **DIRECTOR** of its program in Environmental Studies at the **PROFESSOR** or **ASSOCIATE PROFESSOR** level. Duties include coordinating the program's curriculum, advising students, and teaching two courses a year.

Candidates must have a Ph.D., with teaching and administrative experience in environmental studies or related programs. They must offer evidence of strong leadership skills and a substantial research record. Open to any area of expertise, but preferred qualifications include advanced training in environmentally oriented social or natural sciences and a background in environmental policy analysis and application.

Application deadline is December 1, 1994, or until the position is filled. Send letter of application, curriculum vitae, names and addresses of three references, and a sample of research or writing to: **Donald Worster, Hall Center for the Humanities, University of Kansas, Lawrence, KS 66045-2967. Telephone: 913-864-4798; FAX: 913-864-3884.** The University is committed to increasing the ethnic and gender diversity of its faculty. We strongly encourage female and minority applicants to apply. Affirmative Action/Equal Opportunity Employer.

### ENDOWED PROFESSORSHIP IN EXPERIMENTAL PATHOLOGY

The Department of Pathology, College of Medicine of the University of Oklahoma Health Sciences Center, Oklahoma City, is seeking an individual at the level of **PROFESSOR** who has made significant research contributions in his/her field. This tenure-track position is in experimental pathology and we seek candidates with expertise in the areas of Neuroscience, Vascular Cell Biology, Immunology, or Inflammation and Repair. The successful candidate will be expected to establish and maintain a vigorous and funded research program and participate in teaching at the graduate level.

Candidates should have a M.D., Ph.D., or equivalent and should submit a curriculum vitae, a concise description of research interests and goals, and the names, addresses, and telephone and FAX numbers of three references to: **Dr. L. E. De Bault, Chair, Search Committee, Department of Pathology, P.O. Box 26901, Oklahoma City, OK 73190. Telephone: 405-271-2422 or FAX: 405-271-2568.** Deadline for receipt of applications is November 15, 1994.

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

### THE UNIVERSITY OF MICHIGAN MEDICAL CENTER

The Department of Surgery seeks M.D. and Ph.D. candidates for **FACULTY POSITIONS** in the Section of Urology. Candidates should have demonstrated research experience, ability to obtain grant funding, and interest in an academic career. Academic rank will be determined by applicants' credentials. Please send curriculum vitae to: **Joseph Oesterling, M.D., Professor and Head of Urology, Department of Surgery, The University of Michigan Medical Center, 2916 Taubman Health Care Center, Ann Arbor, MI 48109-0330.**

*The University of Michigan is a Nondiscriminatory/Affirmative Action/Equal Opportunity Employer and strongly encourages minorities and females to apply.*



## GLAXO INSTITUTE FOR MOLECULAR BIOLOGY

Geneva, Switzerland

Research at the Glaxo Institute in Geneva is aimed at understanding the molecular mechanisms underlying disease.

We have recently cloned an ionotropic, purinergic receptor (P2X) which mediates the activity of extracellular ATP on smooth muscle as described in *Nature* **371: 516-519 (1994)**. The novel protein structure of the receptor defines a new class of ligand-gated ion channels. In order to extend our knowledge in this important area we now have created an outstanding opportunity for a

### POSTDOCTORAL MOLECULAR BIOLOGIST

The successful applicant will join a dynamic group studying the role of P2X in development and apoptosis, the functional importance of its high permeability to calcium and the identity of new genes that encode related receptors. Publication of results and presentations at scientific meetings are strongly encouraged.

Informal enquiries can be directed to Dr. Gary Buell (gb15879 @ggr.co.uk; phone +41 22 706 97 47; fax +41 22 794 69 65)

We offer an excellent compensation and benefits package and significant opportunities for career development. Geneva, situated in a very attractive part of Europe, has many advantages as a place to live. The Institute for Molecular Biology is part of the Glaxo group, one of the world's most successful healthcare companies which has an outstanding reputation for the quality of both its research and products.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three referees to : **Rita Gloor, Personnel Manager, Glaxo Institute for Molecular Biology S.A., 14, chemin des Aulx, 1228 Plan-les-Ouates, Geneva, Switzerland.**

#### U.S. ENVIRONMENTAL PROTECTION AGENCY'S ENVIRONMENTAL RESEARCH LABORATORY ATHENS, GEORGIA

### **P**OSTGRADUATE RESEARCH TRAINING PROJECTS

Molecular Spectroscopy  
Environmental Sciences  
Natural Sciences  
Physical Chemistry

Global Change  
Biochemistry  
Geochemistry  
Chemistry

- Stipends begin at \$18,500 - \$33,150 depending on degree and research area
- Recent degree - BS, MS, PhD
- U.S. citizenship required

**Application deadline - December 10, 1994**

**Project descriptions and applications:**

Postgraduate Research Training Program/EPA  
Science/Engineering Education Division  
Oak Ridge Institute for Science and Education\*  
P.O. Box 117  
Oak Ridge, TN 37831-0117  
(615) 576-7385

\* Operated by Oak Ridge Associated Universities  
for the U.S. Department of Energy

## Senior Scientist Molecular Biology

Alcon Laboratories has a position immediately available in our Biotechnology Division for a Senior Scientist in Molecular Biology. The selected candidate must be willing to actively collaborate within a multidisciplinary team of biochemists, pharmacologists, and medicinal chemists in identifying and developing drugs for the treatment of ocular disease.

Requirements include a Ph.D. in Biochemistry, Cell Biology or Molecular Biology with at least three years of postdoctoral training in Molecular Biology and a history of productive research, preferably in a pharmaceutical research environment. Experience in gene transfection *in vivo* is required. Candidates must have a strong background in recombinant DNA techniques, cDNA library construction and screening, plasmid construction, expression systems, and protein production. Preference will be given to applicants with either experience or strong interests in the genetics of ocular disease.

Interested qualified candidates should send their curriculum vitae, addresses and phone numbers of three references in confidence to: Alcon Laboratories, Inc., Placement and Development, T1-3 (SSMB), P.O. Box 6600, Fort Worth, TX 76115. Equal Opportunity Employer, M/F/D/V.  
Principals Only, Please.

**Alcon**<sup>®</sup>  
LABORATORIES



## POSITIONS OPEN

### UNIVERSITY OF SAN DIEGO Fletcher Jones Endowed Chair in Biology

The University of San Diego (USD), Department of Biology, invites applications for the newly established **FLETCHER JONES CHAIR in BIOLOGY** endowed by the Fletcher Jones Foundation and anticipated to begin in the fall of 1995. The University seeks applicants in the field of Developmental Biology with distinctive records in teaching and research. The appointment will be made at the **ASSOCIATE** or **FULL PROFESSOR** level. Teaching responsibilities include courses with laboratory in developmental biology and in molecular biology. USD is an independent Catholic university whose primary aim is teaching excellence. Active scholarship is integral to this aim, and the candidate is expected to have an ongoing research program that has the potential for undergraduate involvement. Applicants should submit a curriculum vitae, a brief statement of teaching philosophy and research interests and the names and addresses of three referees by December 9, 1994, to: **Chair, Department of Biology, University of San Diego, 5998 Alcalá Park, San Diego, CA 92110-2492. Women and minorities are particularly encouraged to apply. USD is an Affirmative Action/Equal Opportunity Employer.**

### STANFORD UNIVERSITY ECOLOGIST/EVOLUTIONARY BIOLOGIST

The Department of Biological Sciences seeks an Ecologist or Evolutionary Biologist. This tenure-track position will be filled at the **ASSISTANT PROFESSOR** level.

Applications from women and members of minority groups are strongly encouraged. Applicants for this position should send a letter of application, statements of research interests and teaching experience, curriculum vitae, two papers or manuscripts, and names and addresses of three referees directly to:

**Ecology/Evolution Search Committee  
Department of Biological Sciences  
Gilbert Room 109  
Stanford University  
Stanford, CA 94305-5020**

The closing date for these applications is December 1, 1994.

### FACULTY POSITION VERTEBRATE ANATOMY AND PHYSIOLOGY

The Department of Biology invites applications for an anticipated **TENURE-TRACK POSITION** in the fall of 1995. Ph.D. in the field and college-level teaching experience are required. The position requires the teaching of vertebrate anatomy and physiology to biology majors. Other teaching will be required in introductory biology courses and natural science core courses (emphasizing evolution and/or environmental science). The successful candidate is also expected to supervise undergraduate biology majors in carrying out independent research projects. Other areas of responsibility encompass advisement of students, research and scholarship, curriculum development and departmental and college committees.

Dowling College is a fully accredited, independent, coeducational, liberal arts college with outstanding graduate programs in business administration and education. The College is located on the south shore of Long Island, 50 miles from Manhattan.

The College offers excellent benefits along with a competitive salary. Please send a letter of interest and curriculum vitae to: **Director of Human Resources, Dowling College, Oakdale, Long Island, NY 11769-1999. Equal Opportunity/Affirmative Action Institution.**

**COLUMBIA UNIVERSITY**, Psychology Department, invites applications for two positions to start September 1995. **HUMAN COGNITION**: applications at any level will be considered, but of special interest is a senior scientist with a record of outstanding research contributions and a strong commitment to undergraduate and graduate teaching. **BEHAVIORAL NEUROSCIENCE/ANIMAL COGNITION**, broadly defined; candidates should provide evidence of research excellence and strong commitment to graduate and undergraduate education; of particular interest are those who can contribute to other areas of Department strength. To Apply: Submit curriculum vitae, relevant papers, and three letters of reference no later than December 1, 1994, to: **Search Committee, 406 Schermerhorn Hall, Columbia University, New York, NY 10027. We take Affirmative Action toward Equal Opportunity.**

## POSITIONS OPEN

### TENURE-TRACK POSITION DEPARTMENT OF BIOLOGY TECHNION, ISRAEL INSTITUTE OF TECHNOLOGY

Individuals with a strong background in cellular and molecular biology will be considered. Preference will be given to applicants who work in the fields of developmental biology and neurosciences. Full knowledge of Hebrew is imperative for teaching purposes. Send curriculum vitae, list of publications and suggested references to: **Professor Shimon Gepstein, Chairman, Department of Biology, Technion, Haifa 32000, Israel.**

**MOLECULAR/DEVELOPMENTAL GENETICIST**: Iowa State University invites applications for a **TENURE-TRACK FACULTY POSITION** in molecular/genetic development within the Department of Zoology and Genetics. The department contains a variety of active and collaborative research groups in genetics, physiology, neurobiology and developmental biology. Applications are encouraged from individuals conducting interdisciplinary research in molecular and/or developmental genetics of any fungal, plant or animal system. The successful candidate will be expected to establish a competitive research program, and contribute to graduate and undergraduate education. The position includes start-up funds and space in a modern Molecular Biology Building. Deadline for applications is 1 December 1994 or until position is filled. Candidates should send curriculum vitae containing a description of research and teaching interests, and arrange for three letters of recommendation to be sent to: **Dr. T. Peterson, Chair, Search Committee, 1210 Molecular Biology, Iowa State University, Ames, IA 50011. Iowa State University is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are encouraged to apply.**

The Department of Biology at Berry College invites applicants for three **TENURE-TRACK POSITIONS** available August 1995. Microbial Ecologist to teach microbiology; Developmental Biologist to teach developmental biology; Physiological Ecologist to teach physiology and anatomy courses. Responsibilities also include teaching introductory biology and general education courses and establishing a research program involving undergraduates. Our department is committed to a strong emphasis in ecology and evolutionary biology. Postdoctoral or teaching experience required. Send letter of application, curriculum vitae, statement of teaching and research goals, representative reprints, and names and addresses of three references to: **Dr. Barbara Mixon, Dean, School of Mathematical and Natural Sciences, 5036 Berry College, Mt. Berry, GA 30149-5036. Deadline is November 11, 1994. Berry College is an Equal Opportunity Employer.**

### FACULTY POSITION IN ACAROLGY

The Entomology Department at Ohio State University invites applications for a tenure-track (nine-month) faculty position to manage the Acarology collection and to do revisionary research in acarine systematics. Application of systematics to ecology and evolutionary biology is desirable. As conceived, the position will be filled at the **ASSISTANT PROFESSOR** level, but candidates at higher ranks will be considered. Teaching responsibilities include acarology, morphology, and general biology. Development of an extramurally supported program will be required. Send a description of research interests, curriculum vitae and names/addresses of three references to: **Glen Needham, The Ohio State University, 484 West 12th Avenue, Columbus, OH 43210. Application review begins January 15, 1995. Ohio State University is an Equal Opportunity/Affirmative Action Employer.**

New Mexico Highlands University invites applications for a tenure-track **ANIMAL PHYSIOLOGY** position in the Biology discipline to begin August 15, 1995. Responsibilities include: teaching of courses (general biology, animal and human anatomy and physiology, and histology) and research with undergraduate and graduate students. Closing Date: November 28, 1994. Submit an application letter, curriculum vitae, official transcripts, and names and telephone numbers of three (3) references to: **Biology Search Committee, School of Natural Sciences, NMHU, Las Vegas, NM 87701. For disabled access or services, call 505-454-3263; or TDD No. 505-454-3003. New Mexico Highlands University is an Affirmative Action/Equal Employment Opportunity Employer.**

## POSITIONS OPEN

### BRIGHAM YOUNG UNIVERSITY

The Department of Chemistry and Biochemistry at Brigham Young University (BYU) invites applications for **FACULTY POSITIONS** to begin in 1995 and 1996. Candidates in Biochemistry/Molecular Biology, Organic Chemistry, and Inorganic Chemistry are targeted, but exceptional applicants in other areas will be considered. New faculty members will have teaching responsibilities at both undergraduate and graduate levels and will be expected to develop externally funded research programs of expanding significance. A letter outlining teaching and research goals, two specific research proposals, a complete résumé, and three letters of professional recommendation should be received by the **Faculty Search Committee, Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT 84602, by December 14, 1994. BYU is sponsored by the Church of Jesus Christ of Latter-day Saints (LDS, Mormon), and is an Equal Opportunity/Affirmative Action Employer. Operating expenses and faculty salaries at BYU are paid by the sponsoring Church, and strong preference is given to LDS applicants. Faculty are required to abide by standards consistent with LDS values.**

### FACULTY POSITION

Harvard University's Division of Applied Sciences seeks candidates with strong experimental and quantitative qualifications for a tenure-track **JUNIOR FACULTY POSITION** in hydrology. Of particular interest are the chemistry, biology, and physics of groundwater transport, contamination, and remediation. The new faculty member should be able to teach undergraduate and graduate courses in engineering and the environmental sciences and to establish an independent research program that will attract graduate students and external support. Candidates should have a Ph.D. in a relevant field. To apply, please send a curriculum vitae, bibliography, statement of research plan, and the names, addresses, and telephone numbers of three references to: **Dean Paul C. Martin, Division of Applied Sciences, Pierce Hall 217a, Harvard University, Cambridge, MA 02138.**

Application deadline is December 31, 1994. *Harvard is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.*

### FACULTY POSITIONS IN STRUCTURAL BIOLOGY

The Department of Physiology and Biophysics of Case Western Reserve University (CWRU) School of Medicine is recruiting for tenure-track **JUNIOR** and **SENIOR POSITIONS**. Candidates with strong credentials in the study of biomolecular structure by NMR techniques are especially encouraged to apply.

Terms are highly competitive, and an appointment provides excellent opportunities to develop strong independent research programs within a newly established Center for Structural Biology shared by various departments at CWRU and The Cleveland Clinic Foundation. The Center currently has funds available for the purchase of at least one additional spectrometer comparable to the 600 MHz instrument now being installed at CWRU.

Submit curriculum vitae, brief statement of interest and proposed research interest and names of four references to: **Structural Biology Search Committee, Department of Physiology and Biophysics, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4970. Case Western Reserve University and The Cleveland Clinic Foundation are Equal Opportunity/Affirmative Action Employers.**

### POSTDOCTORAL FELLOW—PENN STATE

Applications are being accepted for positions on a NIH training grant in Endocrinology, Diabetes and Metabolism at The Pennsylvania State University College in Medicine. M.D. or Ph.D. candidates will be trained for an academic research career by faculty members working in the areas of diabetes, reproductive endocrinology, and endocrine/oncology. Qualifications include U.S. citizenship or permanent resident status, strong academic background and plans for a career in academic research. Application deadline is December 31, 1994. The salary is commensurate with NIH stipend guidelines. For a detailed descriptive brochure and application, write to: **Dr. Leonard S. Jefferson, The Pennsylvania State University College of Medicine, Department of Cellular and Molecular Physiology, P.O. Box 850, Hershey, PA 17033. We are an Equal Opportunity/Affirmative Action Employer and encourage minority and female applicants to apply.**

# CHAIR OF EARTH SCIENCES

Applications are invited from Earth Scientists with an outstanding record of research and leadership for appointment to this newly established Chair. The School of Earth Sciences has strengths in various aspects of geology, meteorology, geophysics, and hydrogeology. The appointee will have a strong commitment to undergraduate and postgraduate teaching, to research and have management as well as academic strengths.

The base salary for a Professor is AUD78,991 per annum. The Professor may undertake limited outside work, subject to conditions approved by Council.

Further information about the position, including details of application procedure, conditions for outside work, superannuation, travel and removal expenses, housing assistance and conditions of appointment is available from the Registrar. All correspondence (marked "PERSONAL AND

CONFIDENTIAL") should be addressed to the Registrar, The University of Melbourne, Parkville, Victoria 3052, Australia.

Telephone: +613/03 344 7529 (Ms Sylvia Edwards)

Facsimile: +613/03 344 6897

Enquiries of an academic nature may be directed to Professor B H J McKellar, Dean, Faculty of Science in the first instance.

Telephone: +613/03 344 6407

Facsimile: +613/03 344 5803

Internet: mckellar@tauon.ph.unimelb.edu.au

Applications close on 30 November 1994.

The Council reserves the right to make no appointment or to fill the Chair by invitation at any stage.

*The University of Melbourne is an equal opportunity employer and has implemented a smoke-free workplace policy.*



## THE UNIVERSITY OF MELBOURNE

M O R E T H A N A D E G R E E

### Faculty Positions Molecular, Cell and Developmental Biology

Department of  
Biochemistry and Molecular Biology  
University of Texas  
M.D. Anderson Cancer Center

Applications are invited for tenure track positions at the Assistant Professor level. Exceptional applicants may be considered for an Associate Professor position. The Department is one of several basic science departments at MDACC, which have limited teaching responsibilities but maintain strong predoctoral and postdoctoral training programs within focused research areas. The present focus of the Department is on molecular aspects of cell and developmental biology, emphasizing both vertebrate and invertebrate systems. Current strengths include transcriptional regulation of development and disease, developmental genetics, chromatin structure, myogenesis, glycobiology, cellular interactions, membrane-cytoskeleton interactions, and intracellular signalling. Applications are encouraged from individuals who will bring diverse experimental systems to complement these and related areas within the overall scope of the Department. The MDACC is located in the Texas Medical Center, which includes Baylor College of Medicine and The University of Texas Health Science Center, offering an unusually rich scientific and training atmosphere. Send a curriculum vitae, a description of research interests, and the names, addresses and telephone numbers of at least three references by November 15, 1994 to:

Barry D. Shur, Ph.D., Chair, Search Committee,  
Box 117, Department of Biochemistry and  
Molecular Biology, M.D. Anderson Cancer  
Center, 1515 Holcombe Blvd., Houston, TX  
77030 FAX: 713-790-0329

*The University of Texas M. D. Anderson Cancer  
Center is an Equal Opportunity/Affirmative Action  
Employer.*

## ANTIFUNGAL DISCOVERY

Merck Research Laboratories Department of Animal Health and Agriculture is seeking applicants for a group leader position in the area of Agricultural Antifungal Discovery. Potential candidates should have a Ph.D. or equivalent and postdoctoral experience in plant pathology and/or mycology, extensive experience in biochemistry and molecular biology and a strong publication record in peer reviewed journals. Experience in managing a research program and a clear understanding of the commercial aspects of plant disease control will be an advantage. The incumbent will be expected to identify and validate potential antifungal targets, design novel screening methods and identify lead compounds for the development of new antifungal agents.

Salary benefits and growth potential for this position are excellent. The position is at Merck Research Laboratories' Rahway, New Jersey facility which is approximately 25 miles from New York City. Please send resume, an outline of research interests and names of three references addressed to: **Human Resources Manager, Merck & Co., Inc., AD 156, P.O. Box 2000, RY80-A-3, Rahway, NJ 07065-0900.** EEO/AA/VH Employer.



**MERCK**  
Research Laboratories

*Research*

## Program Officer Ocean Studies

The NATIONAL RESEARCH COUNCIL is seeking a program officer for its Ocean Studies Board. Responsibilities include development and direction of technical and policy studies, and producing reports. Requires a Ph.D. or equivalent, preferably related to oceanography (marine geology/ geophysics); and at least one year of relevant experience. Demonstrated familiarity with the oceanographic community with extensive sea-going experience and scholarly collaboration in marine research; and excellent communication, writing, and research skills required. Please send resume in confidence to: **NRC/OSB (HA 470), 2101 Constitution Avenue, NW, Washington, DC 20418.** EOE.



## POSITIONS OPEN



**Agricultural Research Service  
United States  
Department of  
Agriculture**

**ANIMAL PHYSIOLOGIST, POSTDOCTORAL RESEARCH ASSOCIATE**, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Animal Science Research Center, Animal Physiology Research, Columbia, Missouri. Two-year position available to conduct research on the physiology of the neonatal pig. The research involves a multidisciplinary approach to solving problems in preweaning productivity related to immunology, endocrinology, and environmental physiology. Research experience in one of these areas is desired. Salary commensurate with experience. Starting salary \$34,662-\$41,543. To apply, please send statement of research interests, curriculum vitae, and three letters of reference to: **Dr. Robert L. Matteri, USDA, ARS, Animal Physiology Research Unit, Room S-143 ASRC, University of Missouri, Columbia, MO 65211**. Applications must be marked 4NO36. *USDA/ARS is an Equal Opportunity Employer.*

### LABORATORY OF MOLECULAR ANESTHESIOLOGY CORNELL UNIVERSITY MEDICAL COLLEGE

A position is available immediately for a **POSTDOCTORAL FELLOW** to study the effects of general anesthetics on neurotransmitter release and signal transduction mechanisms in the CNS. Experience with neurochemical techniques including brain dissection, subcellular fractionation, HPLC, and spectrofluorimetry is desirable, but not required. Qualifications include a Ph.D. and/or M.D. with research experience in biochemical methods. Send a cover letter stating research interests and experience, curriculum vitae and three references to: **H. C. Hemmings, Jr., M.D., Ph.D., Department of Anesthesiology, Box 50, LC-208, Cornell University Medical College, 525 East 68th Street, New York, NY 10021**. Email: [hchemmi@med.cornell.edu](mailto:hchemmi@med.cornell.edu). *Affirmative Action/Equal Opportunity Employer.*

### IMMUNONUTRITION

**POSTDOCTORAL RESEARCH POSITION** is available immediately to study the interactions between the immune system, metabolism and nutrition following injury in acutely ill, trauma patients and in laboratory animals. Successful candidate will be encouraged to develop a strong program in the field of immune response and macrophage functions with special reference to severe injury and nutrition. The applicant should have a Ph.D. in immunology with a strong background in biochemistry, molecular biology and nutrition and should be able to write successful grant applications for growth support. Send curriculum vitae, a summary of research interests, experience and names of three references to: **Dr. M. Jeevanadam, Ph.D., Trauma Center, St. Joseph's Hospital & Medical Center, 350 West Thomas Road, Phoenix, AZ 85013**. *Equal Opportunity Employer.*

### UNIVERSITY OF TEXAS MEDICAL BRANCH GALVESTON

A **POSTDOCTORAL POSITION** available immediately in Experimental Pathology Division will investigate the biochemical and molecular mechanisms of vascular injury by toxic substances; established NIH-funded laboratory within strong, collaborative University Toxicology Program. Send curriculum vitae with names and telephone numbers of three references to: **Paul J. Boor, University of Texas Medical Branch, 301 University Boulevard, Department of Pathology, Galveston, TX 77555-0605**.

*The University of Texas Medical Branch (UTMB) is an Equal Opportunity/Affirmative Action Employer. Male/Female/Disabled/Veterans. UTMB is a smoke-free/drug-free workplace. UTMB hires only individuals authorized to work in the United States.*

### POSTDOCTORAL POSITION BASIC CANCER RESEARCH

Immediate opening to study the function and regulation of heat shock protein 27 in breast cancer. Experience in molecular cloning, sequencing, expression and protein chemistry highly desirable. Send current curriculum vitae and three reference letters to: **Dr. Stephen Carper, Chemistry Department, Box 454003, University of Nevada, Las Vegas, Las Vegas, NV 89154-4003**. *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS RNA POLYMERASE II BIOCHEMISTRY

Two positions are available immediately to study mechanistic aspects of RNA synthesis by RNA polymerase II. Projects include transcript elongation on chromatin templates (Izban & Luse, *JBC*, 267:13647, 1992), mechanism of promoter clearance and transcript elongation (Jacob et al., *JBC*, 269:3655, 1994; Rudd et al., *PNAS*, 91:8057, 1994) and structure-function studies. These projects provide the opportunity for cutting-edge research in a small but vigorous and productive group. The Research Institute is a rapidly growing, well-equipped basic research organization with laboratories studying many aspects of molecular biology, including nucleic acid biochemistry. Experience in biochemistry or molecular biology is required; prior work on RNA synthesis and/or chromatin will be an advantage. Please send a curriculum vitae, including a summary of your research experience, as well as the names, addresses and telephone numbers of three references to: **Dr. Donal Luse, Department of Molecular Biology, NC20, Research Institute, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195**. Telephone: 216-445-7688; FAX: 216-444-0512.

**POSTDOCTORAL POSITION**, University of Cincinnati. A postdoctoral position is available immediately for a project focused on cloning of erythrocyte ion transporters and their expression during erythroid differentiation and in sickle cell disease. Experience in molecular and cellular biology is required. Affiliations and collaboration are available within numerous departments in the College of Medicine and Children's Hospital Research Foundation. Applicants should send curriculum vitae and the names of three references to: **Clinton H. Joiner, M.D., Ph.D., Associate Professor of Pediatrics, and Molecular and Cellular Physiology, Children's Hospital Research Foundation, 3333 Burnet Avenue, Cincinnati, OH 45229-3039**. *Children's Hospital is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from women and minority candidates.*

### DROSOPHILA MOLECULAR NEUROBIOLOGY

**POSTDOCTORAL POSITION** to participate in molecular genetic studies of the *Drosophila* circadian timing system. Current research involves cellular and molecular studies of the neural pacemaker that regulates circadian rhythms as well as an analysis of the neuroendocrine output pathways which couple the pacemaker to specific physiological processes. Experience in molecular biology and/or *Drosophila* genetics is essential. Submit curriculum vitae and names of three references to: **Dr. F. Rob Jackson, c/o Human Resources, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545, USA**. *An Equal Opportunity/Affirmative Action Employer/Male/Female/Disabled.*

### C. H. BEST POSTDOCTORAL FELLOWSHIP

Molecular and genetic research in the areas of diabetes, cell differentiation, signal transduction and hormone action, transcription and translation, membrane transport, neurobiology, cancer, and lipids. Tenable in the Banting and Best Department of Medical Research, University of Toronto for two years after July 1, 1995, with a competitive stipend. Available to new Ph.D.'s or candidates with less than two years of postdoctoral training by June 30, 1995. Send curriculum vitae, academic transcripts and three letters of reference, before January 15, 1994, to: **Dr. David H. MacLennan, Fellowship Committee Chair, Banting and Best Department of Medical Research, University of Toronto, Toronto, Ontario, M5G 1L6 Canada**.

**ASSISTANT/ASSOCIATE PROFESSOR, UNIVERSITY OF PITTSBURGH AT BRADFORD**: invites applications for an anticipated tenure-track position beginning fall 1995. Ph.D. required. Applicants must be able to teach introductory biology, cell biology, cellular physiology, molecular, and courses in area of expertise. Excellence in teaching, academic advising, and the ability to direct undergraduate research are essential for the successful applicant. Send curriculum vitae, letter of application, official transcripts, and names/addresses of three references by January 15, 1995, to: **Dr. Warren Fass, Biology Search Committee, University of Pittsburgh at Bradford, 300 Campus Drive, Bradford, PA 16701**. *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL POSITION PHYSIOLOGICALLY BASED PHARMACOKINETIC/PHARMACODYNAMIC MODELING

#### COLORADO STATE UNIVERSITY

Available immediately for an individual proficient in biochemical toxicology and possessing aptitude in applying chemical engineering concept and mathematical modeling to toxicologic interactions of chemical mixtures. The focus of our laboratory is to develop Predictive Toxicology and related Risk Assessment by integrating PB-PK/PD modeling, highly focused animal experimentation, and other mathematical/statistical modeling. Please forward a curriculum vitae, copies of transcripts for graduate and undergraduate programs, and a list of references to: **Dr. Raymond S. H. Yang, Center for Environmental Toxicology, Department of Environmental Health, Colorado State University, B120 Microbiology Building, Ft. Collins, CO 80523**. *Affirmative Action/Equal Opportunity Employer.*

### CHEMICAL BIOLOGY FACULTY POSITION

**TENURE-TRACK** faculty position in Chemical Biology in a multidisciplinary department comprised of chemists, biologists and chemical engineers. Areas of interest: cell biology, molecular biology and biochemistry. The successful candidate will be expected to teach undergraduate and graduate courses and to initiate independent research program. Ph.D. required in an area of bioscience related to the department's interests; postdoctoral and teaching experience are assets. Rank and salary depend on qualifications. Send résumé, statement of research and teaching interests and three letters of recommendation to: **Prof. Francis T. Jones, Department of Chemistry, Stevens Institute of Technology, Castle Point on Hudson, Hoboken, NJ 07030**. *Stevens Institute of Technology is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION**, Harvard Medical School. Available immediately. **BIOLOGIST/RADIO-BIOLOGIST** preferably with experience in cell culture, animal models, and/or molecular biology. Candidate to work within a multidisciplinary group examining the subcellular effects and therapeutic efficacy of radionuclides. Salary based on experience (NRSA Guidelines). Must be a U.S. citizen or permanent resident. Please contact: **Dr. A. I. Kassis, SWRL, 50 Binney Street, Boston, MA 02115**. Telephone: 617-432-3999. *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available to participate in the development of coagulation diagnostic reagents in an industrial setting. Candidate should have a protein biochemistry background in the field of coagulation. Prefer some molecular cloning, expression and downstream purification experience. Competitive salary and benefits program. Applicants must be U.S. citizens or permanent residents. Submit curriculum vitae and three references to: **Dr. Gary L. Milburn, Pel-Freez Biologicals, P.O. Box 68, Rogers, AR 72756**. Pel-Freez Biologicals is a growing fast-paced smoke-free biotechnology company located in the heart of the Ozarks, which manufactures a variety of reagents for medical diagnostic products worldwide.

*Pel-Freez Biologicals is an Affirmative Action/Equal Opportunity Employer.*

**PREDOCTORAL POSITION** to study the interaction of diet and chemotherapy-induced leukemogenesis, in a rodent model. This collaborative project is newly funded and the Ph.D. degree may be granted in Nutrition or Toxicology, with some flexibility in course requirements. Please contact: **Dr. James B. Kirkland, Department of Nutritional Science, University of Guelph, Guelph, Ontario, N1G 2W1, Canada**. Telephone: 519-824-4120, ext. 6693; FAX: 519-763-5902.

**POSTDOCTORAL POSITION** available immediately to study ocular reflex-based Pavlovian conditioning in schizophrenics. Multidisciplinary Psychiatry/Anatomy/Neurobiology program integrating human/animal models will provide challenges for a clinical or basic researcher skilled in Macintosh computer interfaces and BASIC. FAX résumé and three reference telephone numbers to: **Drs. Keith A. Young/Ian Steele Russell, Neuroscience Lab (11s), Texas A&M University Health Science Center/Waco VAMC, Waco, TX 76711**. FAX: 817-755-8768.



# MOLECULAR BIOLOGISTS

## SENSORY BIOLOGY & COGNITION

As the largest research based pharmaceutical company in Europe, Glaxo Research and Development aims to promote quality of life the world over. Our medicines combat illness and disease in more than 150 countries and our product range includes the world's best selling prescription medicine.

Initially based at Ware or Greenford, you will relocate to our brand new £multi-million research site at Stevenage in early 1995. There you'll find the world's finest state of the art equipment - everything you need to help us make future breakthroughs.

For the position in the Sensory Biology Group, you will join a small team responsible for improving our understanding of the pathophysiology/aetiology of chronic somatic and visceral pain conditions. Using molecular biology techniques, the main focus will be on pathological change occurring in peripheral nerves, spinal cord and the brain.

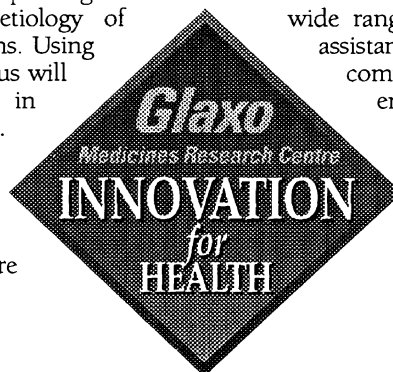
For the position in the Cognition Group, you will join a small team involved in basic research to gain a better understanding of the molecular basis of memory. This work will provide a more

fundamental component to ongoing studies into dementing disorders such as Alzheimer's disease. Research will focus initially on changes in gene expression underlying long-term potentiation and their relevance to the memory process.

Applicants must have practical expertise in molecular biology techniques (ideally with 1-2 years' postdoctoral experience). You will use methodologies such as DDPCR, subtractive hybridisation and in situ localisation to study gene expression changes associated with pain (Sensory Biology) or long-term potentiation (Cognition).

In return you will receive a competitive salary and a wide range of benefits including generous relocation assistance where appropriate. As a major health care company, we are committed to a no smoking environment.

Please write, enclosing your CV, quoting ref: B8 (sensory) B9 (cognition), to: Kate Lawrey, Senior Human Resources Adviser, Glaxo Research and Development, Gunnells Wood Road, Stevenage, Herts SG1 2NY.



### Immunologist

#### Interdepartmental Immunobiology Program Northwestern University Medical School

As part of an ongoing recruiting effort The Immunobiology Program of the Northwestern University Medical School seeks applicants at the Assistant Professor level. The Program is committed to promoting immunobiology research across both basic science and clinical departments. The Program is interested in applicants applying cellular and/or molecular biological approaches to examine the pathogenesis of immune-mediated diseases and/or to examine basic immune mechanisms such as immune regulation, signal transduction, gene regulation, or antigen processing. Current areas of immunology research at Northwestern include autoimmunity, neuroimmunology, lymphocyte development, immunogenetics, transplantation, T cell activation and regulation, and antigen presentation. Candidates are expected to have a doctoral degree, to have completed appropriate post-doctoral training, and to have a demonstrated record of significant research accomplishments. The position will carry a full-time, tenure-track appointment in the Department of Microbiology Immunology. Laboratory space will be located in newly renovated space within the Department of Microbiology-Immunology. To ensure full consideration, applications must be received by December 1, 1994. Applications including curriculum

vitae, bibliography, a statement of future research interests, and the names of three references should be submitted to: Dr. Stephen O. Miller, Director, Inter departmental Immunobiology Program, Northwestern University Medical School, 303 E. Chicago Avenue, Chicago, IL 60611. Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States.

### SENIOR RESEARCH FELLOWSHIP

#### PUBLIC HEALTH SERVICE NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE EXPERIMENTAL THERAPEUTICS BRANCH

Applications are invited from Board Certified adult neurologists with at least 10 years of post-graduate experience to lead Branch clinical research. Investigations focus on the design and implementation of neuropharmacological studies in patients with Parkinson's disease, Alzheimer's disease and other neurodegenerative diseases. At least two years of previous clinical fellowship-training in movement disorders and dementia and two years of experience in conducting phase 1 and 2 clinical trials in neurodegenerative diseases are a prerequisite. The position requires that the candidate have expertise and creativity in designing and performing clinical research projects and training of section personnel. The candidate must satisfy the following specific requirements: Unrestricted license to practice medicine in the United States. Proven ability to produce creative neuropharmacological research in CNS neurodegenerative diseases, as evidenced by first authored, referred publications. Proven expertise in diagnosis and management of patients with neurodegenerative disease. Thorough understanding of current knowledge and hypothesis of the pathophysiology, treatment modalities and future research directions in the field of neurodegeneration. Familiarity with advanced neuroimaging techniques such as PET scanning and MRSpectroscopy. Familiarity with neuropsychological techniques and test-batteries for dementia. The position is located in Bethesda, MD. Salary ranges from \$44,000 - \$53,000 per annum, depending on experience and qualifications. The National Institutes of Health is an Equal Opportunity Employer and encourages all qualified individuals to apply. If interested, please send your curriculum vitae, detailed description of past activities, future research plans and three letters of recommendation within 30 days after publication of this advertisement to: Chief, Experimental Therapeutics Branch, NIH, Bldg 10, Rm 5C103, 9000 Rockville Pike, Bethesda, MD 20892. Position Information and qualification requirements may be obtained by contacting Christine Steyer on 301-496-6334.

## POSITIONS OPEN

**POSTDOCTORAL FELLOWSHIPS** available to investigate human molecular genetic defects. Applicants should have completed Ph.D. within the past five years. Training in molecular biology required. Experience in gene engineering, PCR, sequence analysis, and mammalian tissue culture desirable. Respond in writing with curriculum vitae and the names of three references to: **Anatoly Dritschilo, M.D., Department of Radiation Medicine, Georgetown University Medical Center, 3800 Reservoir Road, N.W., Washington, DC 20007.**

**POSTDOCTORAL RESEARCH ASSOCIATE:** Plant-Insect Interactions. Basic studies focus on chemical mediation and genetic variation in local plant-insect associations. Applied studies focus on manipulating crop-pest associations for improved pest management. Ph.D. in ecology, entomology or related discipline with demonstrated experience in plant-insect interactions required. Training in chemical ecology or quantitative genetics preferred. Apply by December 10, 1994, to: **Dr. J. Daniel Hare, Department of Entomology, University of California, Riverside, CA 92521. Telephone: 909-787-3858; FAX: 909-787-3086; Email: HAREJD@UCRAC1.UCR.EDU. The University of California is an Equal Opportunity/Affirmative Action Employer.**

A **POSTDOCTORAL POSITION** is immediately available to study the electrophysiological correlates of signal transduction/response modulation in intact vasculature and cultured vascular smooth muscle cells. Research will encompass patch clamp experiments of cultured vascular smooth muscle cells to examine the characteristics of nonjunctional ion channels (K and Ca channels), dual whole cell patch clamp experiments of intercellular communication, and sucrose gap studies of intact vasculature. Send a letter of application, curriculum vitae, a statement of research interests, and three letters of recommendation to: **George J. Christ, Ph.D., Department of Urology, Albert Einstein College of Medicine, Bronx, NY 10461.**

### POSTDOCTORAL POSITION RICE UNIVERSITY FULLERENE-BASED NANOTECHNOLOGY

A postdoctoral position stressing experimental physics and/or chemistry dealing with technologies at the nanoscale is available. Research will focus on implementing fullerene fibers (i.e., carbon nanotubes) as proximate probes, as, for example, AFM/STM tips, and as nanomanipulators. The selected individual will be expected to lead frontier efforts in the emerging nanotechnologies, and thus should possess exceptional technical and communication skills. Candidates should submit a letter of application, curriculum vitae, and three letters of reference to: **Professor Richard Smalley, MS No. 100, Rice University, P.O. Box 1892, Houston, TX 77251 before January 1, 1995.**

**POSTDOCTORAL POSITION** available to study the structure, modification, and regulation of noncollagenous bone proteins and their function in bone formation and metabolism. Proteins to be studied include the vitamin K-dependent matrix Gla protein and bone Gla protein. Send résumé and three references to: **Dr. Paul Price, Department of Biology, University of California, San Diego, La Jolla, CA 92093-0322. FAX: 619-534-1492.**

**POSTDOCTORAL FELLOWSHIP.** Available immediately for molecular biologist with recent Ph.D. or M.D. to work as part of an interdisciplinary team investigating cellular receptors involved in cell motility. Applicants should have experience in molecular cloning techniques; experience in biochemistry helpful. The appointment is for two years with an opportunity for career advancement.

Please send curriculum vitae including names and addresses of three references to: **Douglas Cines, M.D., Hematology-Oncology, 7 Founders, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104.**

**POSTDOCTORAL POSITION** in toxicology to study the molecular biology of sulfotransferases and hepatic transport mechanisms. Expertise in molecular biology techniques is preferred. Send applications and names of three references to: **Curtis D. Klaassen, Ph.D., Department of Pharmacology and Toxicology, University of Kansas Medical Center, Kansas City, KS 66160-7417. Telephone: 913-588-7714; FAX: 913-588-7501.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION MOLECULAR VIROLOGY AND ONCOLOGY

Position available to study the role of hepatitis B viruses in hepatocarcinogenesis. Studies will focus on the molecular mechanism of viral DNA integration and specifically, roles of cellular enzymes such as Topoisomerases. Applicants should have a Ph.D. in a relevant discipline. Send curriculum vitae and names of three references to: **Charles E. Rogler, Ph.D., Marion Bessin 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 POSITIONS** in molecular pulmonary pharmacology available for recent Ph.D. in pharmacology, physiology or biochemistry. Project related to molecular pharmacology of purine receptors and the involvement of second messenger systems in airway smooth muscle and epithelial cells. Salary NIH level. Experience in related field preferred. Send curriculum vitae and three letters of recommendation to: **Dr. S. Jamal Mustafa, Department of Pharmacology, East Carolina University, Greenville, NC 27858. Affirmative Action/Equal Opportunity Employer. Accommodates individuals with disabilities. Applicants must comply with the Immigration Reform and Control Act.**

### POSTDOCTORAL POSITION

Postdoctoral position will be available beginning January 1, 1995, in the Vascular Molecular Biology Laboratory at the Mayo Clinic to study endothelial regulation of vascular tone in cerebral and peripheral arteries. Future research will focus on regulation of endothelial nitric oxide synthase, as well as application of gene transfer technology in the treatment of vasospasm. Send curriculum vitae and three names of references to: **Dr. Zvonimir Katusic, Department of Anesthesiology, Mayo Clinic, 200 SW First Street, Rochester, MN 55905.**

**POSTDOCTORAL POSITION.** Available immediately to study signal transduction mechanisms during aging, and regulation of bone signaling pathways by cytokines. Experience in adenylate cyclase and phosphoinositide turnover pathways, cell and molecular biology desired. Send curriculum vitae and names of three references to: **Dr. Michael S. Katz, GRECC (182), Audie L. Murphy Memorial Veterans Hospital, 7400 Merton Minter Boulevard, San Antonio, TX 78284. An Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available for NIH-funded study of molecular basis of metal resistance. Suburban location. Requires Ph.D. in Molecular Biology or related field. Experience in cell culture, plasmid construction, PCR, cloning, sequencing, and expressive vectors preferred. Send curriculum vitae and three references to: **Dr. Toby G. Rossman, The Nelson Institute of Environmental Medicine, NYU Medical Center, Long Meadow Road, Tuxedo, NY 10987. Equal Opportunity Employer.**

**CLINICAL PHARMACOKINETICIST** for pharmaceutical manufacturer in southwestern Ohio: Perform research on biological handling of new drugs and related pharmacokinetics, in regard to dosage formulation performance, metabolism and pharmacodynamics. Identify, design and analyze human pharmacokinetic/pharmacodynamic studies, assist in their implementation, direct analysis of data and interpret results. Use pharmacokinetic computer modelling. Write pharmacokinetic sections of publications, and reports to Food and Drug Administration. Ph.D. in Pharmaceutics or Pharmacokinetics required. Six months in job described or six months of pharmacokinetics experience which must have included working with the formulation of drugs and with the novel routes of administration of drugs, and utilizing pharmacokinetic computer modelling to design and analyze human pharmacokinetic studies, and which may have been gained before, during or after Ph.D. degree, at a university or in industry. Must have published an article in the field in a refereed professional journal. 40 hours per week, 8 a.m.-5 p.m., Monday through Friday. \$57,500 per year. Must have proof of legal authority to work indefinitely in the United States. Send résumé in duplicate (no calls) to: **T. Do, JOB No. 00629, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

## POSITIONS OPEN

A **POSTDOCTORAL POSITION** is available immediately to study various aspects of vertebrate molecular genetics. The present focus of the laboratory is tissue-specific transcriptional regulation with particular emphasis on myosin heavy chain beta. Particular expertise is not required, though candidates with some previous molecular biology experience are preferred. Send curriculum vitae and contact information for three references to: **Dr. Noriko Shimizu, University of South Carolina, School of Medicine, Department of Developmental Biology & Anatomy, Columbia, SC 29208.**

**POSTDOCTORAL POSITION** to study protease gene expression in muscle and neuronal cells. Research will include promoter analysis of the muscle-specific calpain, molecular strategies to modify protease gene expression and gene mapping. Send curriculum vitae and names and telephone numbers of three references by November 18, 1994, to: **Dr. Neil Forsberg, Animal Sciences, Oregon State University, Corvallis, OR 97331. Oregon State University is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to dual career needs.**

**POSTDOCTORAL POSITIONS** available immediately to work on differentiated gene expression in renal epithelial cells. Experience in biochemical and molecular biological techniques required. Contact: **Dr. J. E. Lever, Department of Biochemistry & Molecular Biology, University of Texas Medical School, P.O. Box 20708, Houston, TX 77225. Email: jlever@utmmg.med.uth.tmc.edu. The University of Texas is an Equal Opportunity Employer. Women and minorities encouraged to apply.**

**RESEARCH ASSOCIATE:** Position at Yale University for Ph.D. and/or M.D. with experience in molecular or cell biology to join ongoing research project on ion channel expression in neurons and glia. Experience in molecular cloning, PCR, RNase protection assays, etc. essential. Familiarity with neurons and glia, and with tissue culture would be helpful. Excellent opportunity for interaction with a superb multidisciplinary group. Send letter of interest, curriculum vitae and three letters of reference by December 15, 1994, to: **Stephen G. Waxman, M.D., Ph.D., Professor and Chairman, Department of Neurology, P.O. Box 208018, New Haven, CT 06520-8018. Yale University is an Equal Opportunity/Affirmative Action Employer.**

**BIOMEDICAL RESEARCH ENGINEER** for medical center in northeastern Ohio. To conduct clinical research involving data analysis, medical imaging processing, and design of algorithms and parameters for the measurement and detection of the distribution of retinal vasculature. Also involves research and development of the equipment and techniques for recording, displaying, storing, and processing physiological signals including medical signals filtering, Fast Fourier Transform (FFT), interpolation, imaging enhancement, computer graphics, 3D and other medical imaging processing techniques. Must have B.S. in Biomedical Engineering. Must have the ability to conduct biomedical image analysis, process physiological signals (including medical signals filtering, FFT, and medical imaging processing), and to design medical software for research purposes. Must also be able to apply the techniques of Indocyanine Green Angiography to retinal research. These skills may be evidenced by academic coursework and/or employer testimonials and/or academic letters of reference. 40 hours per week, 8:30am-5:30pm, \$37,300 per year. Must have proof of legal authority to work indefinitely in the United States. Send résumé (NO CALLS) in duplicate to: **J. Davies, JOB No. 00673, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

Department of Psychiatry, University of Pennsylvania, has two open positions for **RESEARCH PROFESSOR/RESEARCH ASSOCIATE PROFESSOR** of Psychology in Psychiatry. Ph.D. in experimental psychology or equivalent required. Applicants should have extensive experience in substance abuse research including productivity in the mechanisms and treatment of alcoholism, cocaine dependence and other addictive disorders. Applicants should have experience and success in obtaining NIH research grants and an outstanding record of publications. Experience in treatment outcome studies will be required. Please send letter and curriculum vitae to: **Charles P. O'Brien, M.D., Ph.D., c/o Ava Plotnick, Department of Psychiatry, 305 Blockley Hall, 418 Guardian Drive, Philadelphia, PA 19104-6021. Equal Opportunity/Affirmative Action Employer.**



## A DYNAMIC MISSION

**At the Glaxo Inc.  
Research Institute,  
Our Priority Is  
Progress.**

Glaxo Inc., one of the largest pharmaceutical companies in the world, has an established record of developing the highest quality prescription medicines for unmet patient needs. Located in **Research Triangle Park, N.C.**, the Glaxo Inc. Research Institute is a premier facility which provides a stimulating environment for scientists working in all aspects of discovery and development. We invite you to join us today in the following opening.

### SR. PROJECT ANALYST/ CONSULTANT

As a key member of our Research Computing Department, the selected individual will lead and participate in projects to redesign and automate biochemical assays, sample handling procedures, DNA sequencing and chemical synthesis in the Research Division. The incumbent will provide leadership in the application of new robotics technology to research tasks, and coordinate the roles of IT, Research and other colleagues in and outside of Glaxo, in defining and implementing automation strategies.

This position requires a BS/BA (MS preferred) in a Physical Science or Computer Science discipline with a minimum of 5 years relevant experience in the application of robotics systems to automation projects in pharmaceutical research. Experience must include the use of imaging technology and robotic systems integration. A forward-looking approach to automation, strong systems analysis skills and knowledge of the scientific basis which drives automation projects are required, as are excellent teamwork, interpersonal and communication skills.

Glaxo offers an attractive compensation and benefits package that features a matching savings plan, an on-site fitness center and much more. Research Triangle Park, N.C. offers an academically enriched quality of life complete with a host of cultural and recreational advantages. For confidential consideration, send your resume which must include position title and salary history, to: **Human Resources Department, Job # ASC452601, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709.** (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/D/V.

# Glaxo Inc.

*The Time For Achievement Is Now*

## Pharmaceutical

# Be At The Forefront Of Drug Discovery Research

...with The DuPont Merck Pharmaceutical Company. We are focused on meeting unmet medical needs through the discovery and development of innovative compounds leading to novel pharmaceuticals.

### Associate/Staff Scientists

#### Molecular Neurobiology

We currently have immediate openings for two Associate/Staff Scientists to perform CNS Research. Responsibilities will include carrying out experiments requiring skills in molecular biology, such as, cDNA cloning, PCR, DNA sequencing, in situ hybridization, DNA and RNA blotting, protein expression, and transfections. To qualify, you should possess a BS/BA or MS/MA and have several years of research experience in an academic or industrial lab. Experience in neurobiology, tissue culture, immunocytochemistry, protein biochemistry, or transgenic mice is desirable. Pos. MNSC

### Staff/Research/Sr. Research Scientist

#### Molecular Biology

A position is currently available in the DNA Sequencing Laboratory which provides DNA sequencing technology as a service to the entire research organization. The ideal candidate will have a MS/PhD and 2-5 years experience with all aspects of automated DNA sequencing. In addition, you must be knowledgeable of the most up-to-date technical advancements in the field. Managerial/supervisory experience would be advantageous. Pos. MB-1

DuPont Merck offers a competitive salary and a generous benefits package including 401K plan as well as excellent working conditions and challenging assignments.

Please send a letter of introduction and resume to: Human Resources Dept. (Pos. Code), The DuPont Merck Pharmaceutical Company, P.O. Box 80400, E400-2413, Wilmington, DE 19880-0400. An equal opportunity employer.

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**The DuPont Merck Pharmaceutical Company**  
Merging Strengths...Emerging Opportunities

## Cell Biology & Inflammation Research Scientist

The Upjohn Company, a worldwide manufacturer of pharmaceutical, agricultural and healthcare products, seeks a scientist with significant expertise in contemporary molecular biological approaches in the Cell Biology and Inflammation Research Unit of its Laboratories.

This is a unique opportunity for an individual with the ability to identify and solve contemporary problems in the cell and molecular biology of inflammation, the determination to apply the solutions to the drug discovery process, and the personality to work on program teams focused intently on the exploration and evaluation of molecular targets for therapeutic intervention.

We seek a candidate with a strong record of achievement and publications, and a professional commitment to drug discovery, to:

- Conceive, plan and implement research strategies for the discovery of novel pharmacological agents for unmet medical needs in the treatment of human inflammatory disorders.
- Establish assays and models to test novel hypotheses of the molecular basis for acute and chronic inflammation in humans.

Requirements include a Ph.D., M.D. or M.D./Ph.D. in Molecular Biology, Biochemistry, Immunology, Pharmacology or related discipline, with at least 2 years of post-doctoral research. Experience in either cellular immunology, the cytoskeleton in signal transduction, redox-sensitive cellular control mechanisms, or molecular genetics would be advantageous.

In addition to an excellent salary and benefits package, Upjohn Laboratories offers a stimulating, multidisciplinary research environment at modern facilities in Kalamazoo, a southwestern Michigan community located midway between Chicago and Detroit. Our region offers an outstanding mix of cultural and recreational pursuits and an attractive cost of living.

For confidential consideration, please send your resume to: **The Upjohn Company, Corporate Recruiting, Position #294, 7000 Portage Road, Kalamazoo, MI 49001.** We are an equal opportunity employer with a commitment to workplace diversity.

# Upjohn

**Advancing Science...  
Enhancing Life**

## POSITIONS OPEN

Private university in northeastern Ohio seeks **SENIOR RESEARCH ASSOCIATE** for Division of Pulmonary/Critical Care Medicine. Successful candidate will be involved with performance of electrophysiological studies in the central control of breathing and bronchomotor tone, electrosurgical animal preparation, nerve recordings, microiontophoresis of neuroactive agents into well-defined areas of the central nervous system and recording of their effects on cardiorespiratory and airway functions, immunological and neuronal tracing studies including the use of pseudorabies virus as a transneuronal marker, intracardiac animal perfusion, tissue preparation, mapping of neurons, light and fluorescent microscopy. Requirements: D.V.M., M.D., or Ph.D. in Physiology with three years of postdoctoral experience in job described above or three years of postdoctoral experience in respiratory physiology particularly control of breathing, neuroanatomy and neuropharmacology. Working hours are 37.5 per week (8:30–5:00) Monday through Friday; salary \$27,681 per annum. Proof of legal authority to work indefinitely in the United States required. Send curriculum vitae with list of publications, names and addresses of three recent academic or professional references in duplicate (no calls) to: **J. Davies, JO No. 00695, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.** Affirmative Action/Equal Opportunity Employer.

### CARDIOVASCULAR RESEARCH SCIENTISTS

Applications are invited for research staff positions as independent investigators in the Montreal Heart Institute Research Centre. A physical expansion will create space for several new laboratories, that will complement and interact with ongoing research programs in vascular biology, cardiovascular cellular electrophysiology and biophysics, myocardial protection, and myocardial failure and remodelling. Candidates should have Ph.D. and/or extensive postdoctoral training in basic cardiovascular research. Particular areas of interest to the Centre include ion channel structure-function and regulation, the control of myocardial and vascular cell expression and growth, and factors governing the arterial response to injury and atherogenesis. Familiarity with molecular techniques would be a major asset. Working knowledge of French is not a precondition, but a willingness to acquire this is necessary. Full start-off funding is available, as well as support for ongoing research programs. Appropriate candidates will be eligible for tenure-track appointments on the Faculty of Medicine of the University of Montreal. Please send your application to: **Dr. Stanley Nattel, Directeur, Centre de recherche, Institut de Cardiologie de Montréal (Montreal Heart Institute), 5000, rue Bélanger Est, Montréal (Québec) H1T 1C8 Canada.**

### CELLULAR/DEVELOPMENTAL BIOLOGIST

The Reed College Biology Department intends to hire a cellular or developmental biologist for a one-year leave replacement position. Candidates must have a Ph.D. or M.D., and postdoctoral research experience is desirable. Teaching responsibilities will include the equivalent of a lecture/lab course each semester, an advanced topics seminar each semester, and supervision of several senior thesis research students. Effective teaching is of paramount importance at Reed College. Because thesis and independent research by students are core elements of our curriculum, demonstrated research competence will be a search criterion. Please send a letter of application, curriculum vitae, and a reprint of a recent publication; also arrange for three letters of recommendation to be submitted to: **Dr. S. Arch, Biology Department, Reed College, Portland, OR 97202-8199**, before January 15, 1995. *Reed College is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT IN RESEARCH

Full-time non-tenure position in protein analysis-protein chemistry in the Suncoast Alzheimer's Disease Research Laboratory involved in studying the genetic causes and biological mechanisms underlying the pathogenesis of Alzheimer's disease. A Ph.D. with experience in protein analysis and standard immunological techniques as well as an interest in protein biology. Salary \$25,000. Send résumé to: **Lois Karb, Suncoast Gerontology Center, USF Health Sciences, Box 50, 12901 Bruce B. Downs Boulevard, Tampa, FL 33612.** University of South Florida is an Equal Opportunity Employer/Equal Access/Affirmative Action Institution. For disability accommodations and more information contact **Lois Karb, 813-974-4355.**

## POSITIONS OPEN

### IMMUNOLOGIST INDIANA UNIVERSITY SCHOOL OF MEDICINE MUNCIE CENTER FOR MEDICAL EDUCATION AT Ball State University Muncie, Indiana

Applications are being invited for a tenure-track position in the area of immunology or neuroimmunology at Ball State University. The successful applicant will participate in team teaching a Microbiology/Immunology course to first year medical students and be expected to develop an active research program supported by extramural funding. Applicants are expected to have postdoctoral experience, demonstrated research capability, and have a commitment to excellence in teaching. Rank and salary will be commensurate with experience. Deadline for application is December 1, 1994. Send letter of application, curriculum vitae, a brief summary of research and teaching experience, and the names of three references to: **Dr. Douglas A. Triplett, Indiana University School of Medicine, Center for Medical Education, Ball State University, Muncie, IN 47306.**

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

### MCDONNELL SCHOLAR in Molecular Oncology at Washington University School of Medicine

The Division of Hematology/Oncology is seeking applications from physician investigators who want to apply the newer advances in basic sciences to oncology. The purpose of the program is to serve as a bridge between postdoctorate training and independent faculty status. The awardee will be able to devote all of his/her time to the development of an independent research program in an environment where outstanding senior investigators are available for encouragement and support. The awardee will receive \$375,000 payable over three years, including a stipend of \$50,000 per year. The balance of the award is to be used for supplies and technical support at the discretion of the awardee. Candidates must have an M.D. degree or M.D./Ph.D. degrees and have demonstrated outstanding potential for creative investigation. Applicants should submit a curriculum vitae, a statement of research experience and specific interests, and three letters of recommendation postmarked no later than December 31, 1994, sent to: **Stuart Kornfeld, M.D., Washington University School of Medicine, Box 8125, 660 South Euclid Avenue, St. Louis, MO 63110.**

### PRINCIPAL ENVIRONMENTAL SCIENTISTS

Louis Berger International, Inc., a prominent, rapidly expanding environmental, planning and engineering consulting firm with offices located in 62 countries worldwide has immediate openings for long term assignments in Indonesia, the Philippines and other international locations. Excellent salary/benefit package. Requirements include a Ph.D. or M.S. in Chemistry (or a related scientific field), environmental regulatory experience (preferably with the U.S. government), and experience working with interdisciplinary teams. Prior overseas work experience not required. Examples of work assignments and setting up environmental testing laboratories and established frameworks for environmental regulations, résumé and letters of interest to:

**Personnel Director, x239  
Louis Berger International, Inc.  
1819 H Street, NW  
Suite 900  
Washington, DC 20006**

### FRONTIER RESEARCHERS IN GLYCOTECHNOLOGY

**POSITIONS** at the Ph.D. level are available (\$35,000 per year) at the Frontier Research Program on Glycotechnology for conducting research in carbohydrate synthesis, analysis and/or carbohydrate enzymology. Please send résumé and two letters of recommendation to: **Dr. Tet-suya Kajimoto, Frontier Research Program, The Institute of Physical and Chemical Research, 2-1 Hiro-sawa, Wako-shi, Saitama, 351-01, Japan.**

## POSITIONS OPEN

### NEUROSCIENTISTS/ CARBOHYDRATE CHEMIST

**CYPROS**, an emerging pharmaceutical company focusing on novel drug approaches to treat ischemia, has several openings. **NEUROSCIENTISTS.** Requires Ph.D. degree plus two years of experience (preferably in industry) in enzymology, receptor pharmacology, and animal models, and with drugs affecting ion channels/adrenosine. **CHEMIST.** Requires Ph.D. plus zero to three years of experience in synthesis, purification, and/or analysis of small carbohydrates. Ideal candidate will have strong knowledge of synthetic methodology (as applied to manipulating sugars) and analytical chemistry. The Company offers competitive salaries, stock option plan, significant growth opportunities. Candidates should respond to: **Cypros Pharmaceutical Corporation, Personnel Department, 2732 Loker Avenue West, Carlsbad, CA 92008.** Telephone inquiries not accepted.

**LICENSING ASSOCIATE** position at Iowa State University to match Iowa State University technologies with industry. Negotiate agreements. Ph.D. in a science/technical field with a good understanding of research and technology development, or MBA with technical background at the college level plus two years of technology marketing experience. Apply with names and addresses of three references to: **Office of Intellectual Property and Technology Transfer, 214 Office & Laboratory, Iowa State University, Ames, IA 50011** before November 11, 1994. *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL RESEARCH** position available immediately in molecular mechanisms regulating reproductive function. Send curriculum vitae and names of three references to: **Dr. Frank S. French, Director, The Laboratories for Reproductive Biology, CB No. 7500, 382 MSRB, The University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC 27599-7500.** FAX: 919-966-2203.

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## COURSES AND TRAINING

### SHORT COURSE ON TIME-RESOLVED FLUORESCENCE SPECTROSCOPY

**January 9–13, 1994 Baltimore, Maryland  
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Topics include: principles of fluorescence, time- and frequency-domain measurements and instrumentation, data analysis, anisotropy, quenching, lifetime-based sensing, fiber optics, Forster energy transfer, infrared fluorometry, two-photon excitation, and fluorescence lifetime imaging and microscopy. For outline/registration form, contact: **Suzy Rhinehart** (coordinator) or **Prof. J. R. Lakowicz, Department of Biological Chemistry, University of Maryland School of Medicine, 108 North Greene Street, Baltimore, MD 21201.** Telephone: 410-706-8409; FAX: 410-706-8408.

## SYMPOSIUM

**SYMPOSIUM: Stem Cells: Prospects for the Clinic;** February 6 and 7, 1995; Hyatt Richeys, Palo Alto, CA **SPEAKERS:** **I. Weissman**, Stanford; **G. Spangrude**, Utah; **D. Emery**, MGH; **R. Hoffman**, SyStemix; **S. Heimfeld**, CellPro; **R. Tushinski**, SyStemix; **M. Moore**, Sloan Kettering; **R. Mertelsmann**, Germany; **J. E. Wagner**, Minn; **R. O'Reilly**, Sloan Kettering; **R. Mulligan**, MIT; **E. Gilboa**, Duke; **J. Lebkowski**, AIS; **S. Chatterjee**, City of Hope; **D. Bodine**, NIH; **D. Kohn**, UCLA; **A. Deisseroth**, M. D. Anderson; **D. Valerio**, IntroGene; **C. Bordignon**, Italy; **D. DiGiusto**, Progenesis; **A. Galy**, SyStemix; **F. Gage**, UCSD; **S. Weiss**, Calgary; **J. Rhim**, Penn; **D. Sasaki**, SyStemix; **R. Knazek**, Cellico; **G. Reyes**, Ingenex; **D. Harris**, Arizona. Abstracts due January 28, 1995. Organizers: **J. Larrick**<sup>1</sup> and **J. Mulé**.

Sponsor: **1. Palo Alto Institute of Molecular Medicine, 2462 Wyandotte Street, Mt. View, CA 94043.** FAX: 415-694-7717; Telephone: 415-694-1420; Email: PAIMM@AOL.com.



## SCIENCE ADVISOR TO THE GOVERNOR

### State of Nevada

The State of Nevada invites nominations and applications for the position of Director, Office of Science, Engineering and Technology (OSET). A principal function of the Director is to serve as a science advisor to the Governor. The broader mission of the OSET is to work in coordination with the Commission on Economic Development to establish criteria and specific goals for economic development and diversification in Nevada in the areas of science, engineering and technology; and establish and carry out policies to ensure that projects and resources in the state relating to science, engineering and technology are managed and coordinated to provide the greatest benefit to Nevadans. Also included as responsibilities of the OSET is the establishment of programs that develop and enhance the scientific and mathematical skills of Nevada's students; assistance in bringing new advanced technological programs to the state; and provision of technical assistance to the Commission on Economic Development, local authorities, businesses, and industries regarding development and diversification.

Nominees and applicants must have a graduate degree in an appropriate field of science or engineering; experience in administering major scientific and engineering programs; and demonstrated experience in the development of plans and policies for state and federal governments.

This position will be established in Carson City, Nevada and the individual selected will receive an annual salary of up to \$75,000 depending on qualifications and experience. Further information about the position and qualification requirements may be obtained by contacting Dr. David N. McNelis at (702) 895-4240 or Erich W. Brethauer at (702) 895-1209.

Nominations or application letters should be submitted to:

Dr. David N. McNelis VPR-1046  
University of Nevada, Las Vegas  
Las Vegas, Nevada 89154

Completed applications or nominations must be postmarked by the closing date of Friday, November 18, 1994.

Selection for this position will be based solely on merit. The State of Nevada employs only U.S. citizens and aliens authorized to work in the U.S.

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## Tenure-Track Position Assistant Professor Equivalent

Cell Biochemistry and Biology  
John A. Hanover, Ph.D.

Tenure-track position available immediately to develop an independent research program in Molecular Cell Biology as part of a newly formed department. Current staff are carrying out studies on nuclear transport, signal transduction, and intracellular trafficking of proteins and lipids. Candidates should have experience in biochemistry and cell biology with a particular emphasis on molecular approaches to biological problems. The laboratory is fully instrumented for modern biology, including a confocal and electron microscopy facility. Applicants should submit a statement of current research interest and future research goals and three letters of recommendation.

Laboratory of Cell Biochemistry  
and Biology  
NIDDK/NIH  
Bldg 8, Room 402  
9000 Rockville Pike  
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The Albany College of Pharmacy  
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position of Associate Dean for Academic Affairs.

The Associate Dean for Academic Affairs reports to the President and provides leadership in all matters for the baccalaureate program and the post-baccalaureate Doctor of Pharmacy program and the six year entry-level program currently in development. The responsibilities of the Academic Dean include curriculum development; faculty recruitment and development; fiscal management of Departments budgets; supervision of research efforts; program evaluation of instruction; and the day-to-day operation of the instructional aspects of the College.

The successful candidate should possess an earned doctorate, preferably in the pharmaceutical disciplines; strong interpersonal skills and effective communications ability both verbal and written; a strong commitment to excellence in teaching and research; proven leadership and administrative abilities; and an enthusiastic approach to the problems and issues of pharmacy practice and the future of pharmaceutical education.

Applicants should send a letter of application, a complete curriculum vitae including teaching, research and administrative experience, and the names of three references to:

Claire M. Lathere, Ph.D., F.C.P.  
President and Dean  
Albany College of Pharmacy  
Union University  
106 New Scotland Avenue  
Albany, New York 12208

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## New York University

### FACULTY POSITIONS Department of Biology

The NYU Department of Biology is undergoing a program of expansion and development. Ten faculty have been added in the past 4 years. Two new positions are currently available (subject to budgetary approval), in the areas of genetics, physiology or biochemistry. Outstanding candidates in other areas will also be considered. Appointments will be made at the assistant professor level (tenure-track), although senior appointments may be made to distinguished scientists with established research programs. Candidates are expected to establish active, externally-funded research programs and to participate in the department's teaching activities. The department offers an excellent research environment, substantial start-up packages and modern laboratory facilities. Application letter with curriculum vitae and three letters of reference should be sent to: **Chairman of the Search Committee, Department of Biology, New York University, 1009 Main Building, Washington Square, New York, NY 10003.**

NYU encourages applications from women and members of minority groups.

## Senior Scientist Drug Discovery

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# BIOSTAR

**BIOSTAR Inc.**, a manufacturer of clinical diagnostics, has the following opportunities:

## SENIOR SCIENTIST (scientist II)

We are currently seeking a creative, experienced scientist to provide technical and scientific advice and direction to the development of diagnostic tests to detect infectious diseases in humans. These will include tests for Chlamydia, Streptococcus, Hepatitis, Toxoplasmosis, Rubella and other diseases of significance. In addition, a knowledge of assays for Endocrinology (i.e. hCG and LH) and of developing assays for automated Immunoassay systems is desirable. The successful candidate will have had experience in several diagnostic assay formats including Optical Immunoassays. The position requires handling several projects simultaneously, managing up to three assistants and providing senior management with both written and audiovisual project status reports. The candidate must be familiar with computer programs for statistical design and analysis of scientific experiments, as well as cGMP and the 510(k) process. The ability to work in a team environment is essential. A Ph.D. degree in related disciplines as well as at least three years of relevant hands-on experience in the diagnostics industry is required. The salary is \$68,822 per annum, plus a competitive benefits package.

Please refer to Job Order # C04389577

## SCIENTIST (Scientist I)

We are currently seeking a creative experienced scientist to work in the development of diagnostic tests to detect infectious diseases in humans. The successful candidate will have experience in designing and performing experiments, as well as record keeping and providing senior management with both oral and written presentations. Experience in the development of diagnostic immunoassays, protein purification and preparation of polyclonal and monoclonal antibodies is highly desirable. The position requires management of multiple tasks simultaneously and requires experience in the use of computer programs for statistical experimental design and analysis of results. The ability to work in a team setting is essential. A Ph.D. in related disciplines with 0 to 3 years, an M.S. with 3 to 5 years or a B.S. with 5 or more years experience in the diagnostics industry is required. The salary range is \$30,000 to \$45,000 per annum plus a competitive benefits package.

For consideration, please send your resume to -Ms. Peg Bungaard, BioStar Inc., 6655 Lookout Rd., Boulder, CO 80301, indicating clearly the job being applied for. BioStar is an Equal Opportunity Employer.

The Faculty of Science of the University of Lausanne has an opening for a

## full professorship in theoretical physics.

The candidate will participate to the teaching of theoretical physics, in collaboration with the other theoreticians of the University and of the Lausanne Federal Institute of Technology. At a specialized level, he or she could be charged of lectures in the domain of the relativistic quantum field theory. The candidate will be free to select a research field in which he or she will advise graduate students. It is wished he or she has strong experience in particle physics theory.

Applications (C.V., list of publications reprints of three publications, research project and three references) should be sent before **December 15, 1994** to the Dean of the Faculty of Science, CP, CH - 10 15 Lausanne. For further information contact: prof, J.J.Loeffel, Telephone: +41 21 692 37 51. Fax : 692 36 05, E-mail: jvuille@ula.unil.ch.

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The position will be responsible for managing clinical research and clinical affairs, working with a variety of compounds in a number of therapeutic areas, including cardiology and oncology. The successful applicant will possess broad experience in planning and supervising Phase I/II human clinical trials on significant new therapeutic products. Experience gained with a major pharmaceutical or biotechnology company in bringing new chemical entities to FDA standards is essential.

Compensation, including stock options, will be offered commensurate with experience. Applicants are invited to submit their resumes, in confidence, to the Human Resources Director, LXR Biotechnology Inc., 1401 Marina Way South, Richmond CA 94804. LXR is an equal opportunity employer.

## Molecular Physiologist

PARKE-DAVIS Pharmaceutical Research seeks an experienced senior diabetes physiologist to join its Department of Signal Transduction, as part of an expanding research effort into the molecular, cellular and physiological basis of diabetes mellitus. The individual will direct a group of physiologists in evaluating insulin and drug action in animal models of diabetes and obesity, working closely with molecular and cellular biologists. An MD or PhD in physiology is required, with 4 or more years' experience in diabetes/obesity research, and a productive record of publication. Knowledge and expertise in molecular biology is also desired.

The successful candidate will join a group of highly interactive and experienced scientists, focusing on modern and innovative approaches to metabolic diseases. Demonstrated independence, creativity and the desire to work in an interactive environment are highly valued.

In addition to competitive salary and benefits programs, we offer a dynamic and stimulating research environment, with the emphasis on innovation, intellectual honesty and openness and professional growth. Interested candidates may send their resume to **PARKE-DAVIS Pharmaceutical Research, Box JDM-94140, Human Resources, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"**

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## SCIENTIFIC DIRECTOR

### National Institute of Neurological Disorders and Stroke NIH

The National Institute of Neurological Disorders and Stroke (NINDS) seeks a Director for the Division of Intramural Research. The Scientific Director is responsible for planning, directing and coordinating basic and clinical research carried out by the 22 laboratories and branches in the Intramural Research Program which has an annual budget of approximately \$75 million and a scientific staff of approximately 400. Applicants must have a record of scientific excellence in neuroscience or related research, broad familiarity with contemporary research in neuroscience and neurology, and experience in scientific administration. Both M.D.s and PH.D.s are invited to apply. The position is a Civil Service position in the Senior Executive Service. Public Health Service Officers within the Commissioned Corps are also eligible.

Applicants should submit a current curriculum vitae and bibliography to Mr. Alfred L. Salas, National Institutes of Health, NINDS Personnel Office, Building 31, Room 8A23, 31 Center Dr., MSC 2540, Bethesda, Maryland 20893-2540. Applicants are required to submit an Application for Federal Employment (SF-171), available at all Federal Job Information Centers, or which can be obtained from Mr. Salas at (301-496-6334).

Applications must be postmarked by November 28, 1994.

Selection for this position will be based solely on merit with no discrimination for non-merit reasons such as race, color, religion, sex, national origin, politics, marital status, sexual orientation, physical or mental handicap, age, or membership or non-membership in an employee organization.

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### Faculty Positions in Neurobiology University of Maryland School of Medicine Department of Anatomy

The Department of Anatomy has new leadership; significant growth is underway in the area of neurobiology. Our focus is on the *development, organization and function of neural networks*. New full-time tenure-track faculty will be recruited in these areas. Positions are primarily at the Assistant Professor level, but exceptional candidates at any level will be considered. Salary is dependent upon qualifications and experience.

The Department will move into new laboratories in the summer of 1995. There will be a significant increase in research resources, including core laboratories in neurohistology, molecular biology, tissue culture, imaging, and neurophysiology.

Successful candidates will have a Ph.D. or equivalent, outstanding ability in teaching, and exceptional achievement in their field of research, including the potential to attract external funding. They will be expected to develop independent research programs and to participate in graduate and medical school teaching. We are particularly interested in candidates whose research interests supplement our existing strengths and who can establish collaborative research programs.

For best consideration, applications should be received before Dec. 1, 1994. Applicants should send a C.V., a summary of research accomplishments, a description of future plans, and the names of 3 - 5 individuals from whom recommendations may be obtained to:

Dr. David V. Smith  
Chair, Faculty Search Committee  
Department of Anatomy  
University of Maryland School of Medicine  
655 West Baltimore Street  
Baltimore, MD 21201-1559

Our Department is eager to diversify its faculty and we especially encourage women and minorities to apply. The University of Maryland is an AA/EEO/ADA employer.

### Director Trudeau Institute

The Trudeau Institute invites applications for the position of Director. The Institute, located in Saranac Lake, N.Y. is a privately endowed laboratory engaged in basic research in the field of Immunobiology at molecular, cellular, and physiological levels, with special emphasis on the responses of experimental animals to a variety of antigenic stimuli including those provided by tumors, allografts, and pathogenic microorganisms. Total research space in the Institute amounts to 10,000 square feet. In addition there are several rooms equipped with micro isolator housing for small animals, a BioSafety Level 3 facility, and a 10,000 sq. ft. animal facility that breeds mice under specific pathogen free conditions. Candidates should have attained national and international stature 'in the field of experimental immunology, and should be actively involved in a full-time program of basic research. Inquiries and applications, which should include a current curriculum vitae, should be sent to:

The Search Committee  
Trudeau Institute  
P. O. Box 59  
Saranac Lake, N.Y. 12983

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### Tenure-Track Faculty Positions Department of Genetics

The Department of Genetics of the University of Pennsylvania School of Medicine is undergoing expansion, and plans to make several appointments in each of two areas: 1. Molecular genetics of lower eukaryotes, and 2. Mammalian or developmental genetics, including human molecular genetics. Attractive new laboratory space and other resources are available.

The deadline for applications is January 1, 1995. Send curriculum vitae, including bibliography, statement of research interests, and names and addresses of three references to:



Chair, Search Committee  
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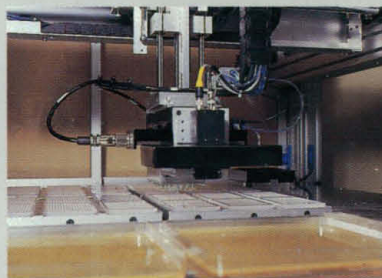
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