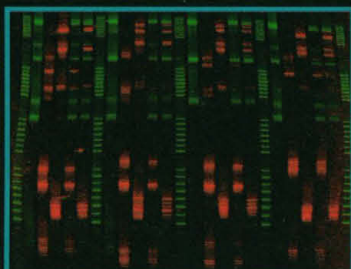
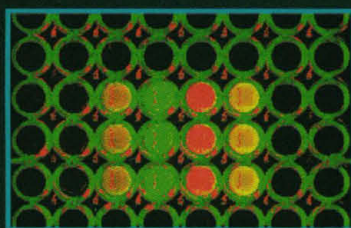
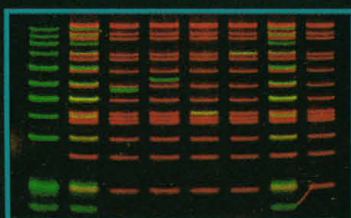


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Two-color PCR product analysis



Courtesy of Richard Davis, UCLA, Dept. of Medicine, Cardiology Div.



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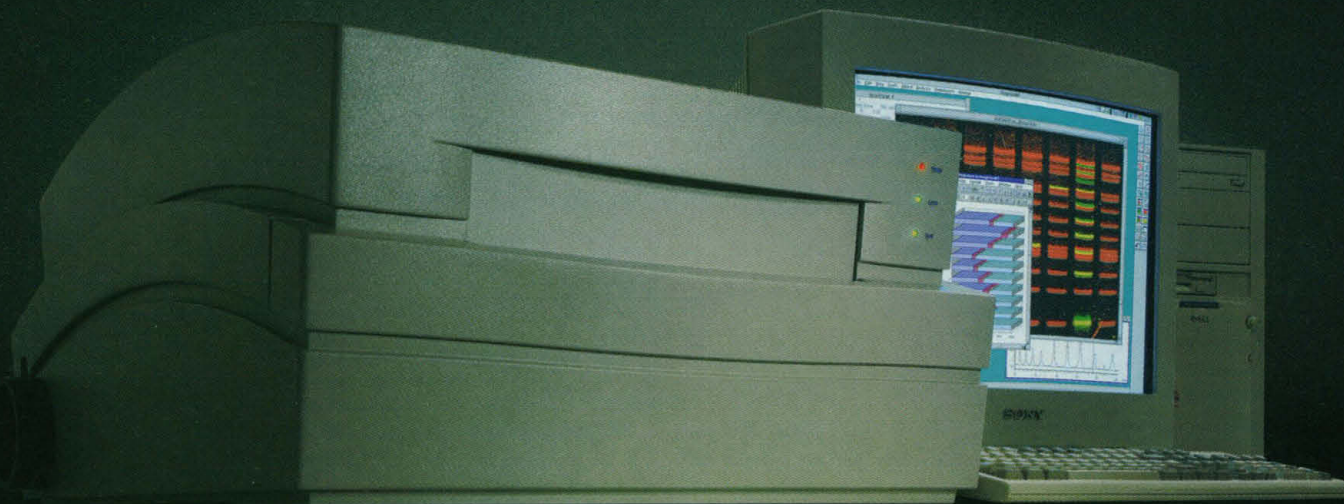
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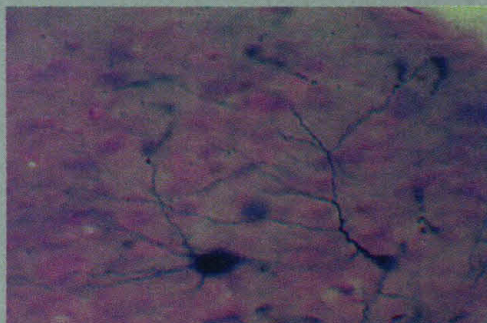
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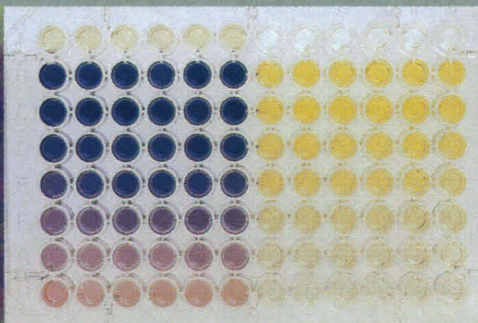
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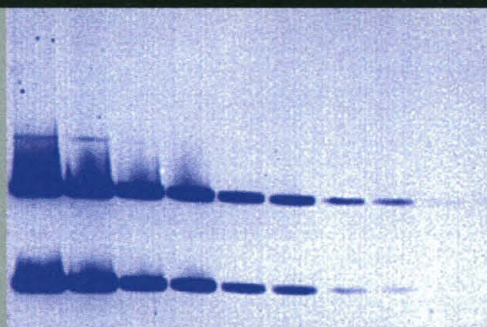
Biotinylated dextran injected iontophoretically into the auditory cortex of rat brain to label somata and neuronal profiles. Tissue treated with KPL's Streptavidin-Peroxidase, followed with TrueBlue[™] Peroxidase Substrate. Counterstained with Contrast RED. Photographed using a 3-dimensional light microscope.



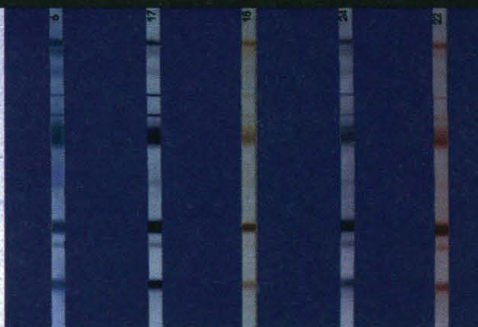
Microplate wells coated with 1.5 µg/ml of rabbit IgG excepting row A, then blocked. Alkaline phosphatase-labeled goat anti-rabbit IgG (H+L) added to row A at a concentration of 50 ng/ml, with a dilution series of conjugate ending in row H at a concentration of 2.5 ng/ml. Incubated for 20 minutes with KPL's BluePhos[™] Substrate (left side) and pNPP Phosphatase Substrate (right side).



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3-Day Graduate Research Seminar (double)**	\$317	
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SESSION TITLES ARE INDICATED IN BOLDFACE,
Discussion Leaders in Italics, and Speakers in Regular Type.

AGING, BIOLOGY OF

HARBORTOWN RESORT
VENTURA, CA
JANUARY 5 - 10, 1997

Thomas E. Johnson, *Chair*
Tom Kirkwood, *Vice Chair*

GENETICS OF AGING: THE QUANTITATIVE APPROACH

S. Austad
J. Curtsinger / L. Partridge /
M. Rose

GENETICS OF AGING: THE CLASSICAL APPROACH I

C. Kenyon
L. Guarante / G. Ruvkun /
S. Murakami / K. Higuchi

GENETICS OF AGING: THE CLASSICAL APPROACH II

M. Jazwinski
M. Driscoll / S. Hekimi /
C.-E. Yu

GENETICS OF AGING: THE MOLECULAR APPROACH I

A. Richardson
M. Jazwinski / B. Chatterjee /
S. Helfand / J. Tower

MOLECULAR GENETICS OF AGING II

J. Tower
W. Orr / S. Stearns /
P. Bickford / F. Sierra

GENETICS OF ALZHEIMER'S DISEASE

G. Martin
R. Tanzi / A. LeBlanc /
S. Younkin / S. Gandy

CARDIOVASCULAR REMODELING DURING AGING

E. Lakatta
M. Crow / P. Anversa /
M. Capogrossi

GENETICS OF OSTEOPOROSIS

A. Kahn
S. Cummings / G. Karsenty /
J. Eisman / P. Parry

KEYNOTE SPEAKER

J. Vaupel

EVOLUTIONARY TRADE-OFFS BETWEEN LONGEVITY AND REPAIR

T. Kirkwood
G. Lithgow / N. Holbrook /
A. Richardson / A. Kowald

AGRICULTURAL SCIENCE

HARBORTOWN RESORT
VENTURA, CA
FEBRUARY 9 - 14, 1997
René Feyerisen & Mani
Subramanian, *Co-Chairs*
Dan O'Keefe & David Sands,
Co-Vice Chairs

DESIGN AND DISCOVERY IN CROP PROTECTION

R. Feyerisen /
M. Subramanian
A. Akers / B. D. Hammock

RATIONAL DESIGN FROM KNOWN LEADS

R. M. Hollingworth
T. Fujita / A. J. Hopfinger /
D. Kleier / R. J. Nachman

RATIONAL DESIGN FROM KNOWN TARGETS

P. Chemla
R. Honzatko / T. Dhadialla

NATURAL PRODUCTS

S. Duke
T. Sparks / R. Hain / A. I. Scott /
M. Betlach

COMBINATORIAL SYNTHESIS

J. Kobzina
M. R. Robson / B. Clark

NEW SCREENING STRATEGIES

M. Stidham
C. Hall / J. Warmke / U. Gisi /
D. Young

NOVEL DELIVERY SYSTEMS

B. Black / *F. Hsu*

FINDING NEW TARGETS

M. Devine
K. Feldmann / J. Purcell /
R. Hoefgen

GENETICALLY ENGINEERED CROP PROTECTION

D. M. Shab
J. Ryals / R. Beachy / J. Liang

ANGIOTENSIN

IL CIOCCO
BARGA, ITALY
APRIL 20 - 25, 1997

P. Corvol, *Chair*
F.A.O. Mendelsohn,
Vice Chair

PHYLOGENESIS OF THE RENIN SYSTEM

D. Coates
H. Nishimura / N. Hazon /
M. Salzter / E. Isaac /
A. Shirras

G-PROTEIN COUPLING / ANGIOTENSIN COUPLING

K. Bernstein
B. Berk / L. M. Luttrell

ENDOTHELIN

M. Clozel
M. Yanagisawa / T.F. Luetscher /
M.J. Dunn /
O. Valdenaire / H. Kurihara

ANGIOTENSIN AND CNS

F. A. O. Mendelsohn
C. Llorens-Cortes /
M. Raizada / M. McKinley

PROTEIN PROCESSING IN HEALTH AND DISEASES

I. Sen
J. Arribas / R. A. Black /
T. L. Reudelhuber / S. E. Gandy

GENETICS

F. Soubrier
J. Rapp / J. Naggert /
J. Krege / R. Lifton

VASCULAR WALL AND VASO-ACTIVE AGENTS

D.G. Harrison

G. Hibbons / E. Shesley /
T. Hintze

STEROIDS AND BLOOD PRESSURE REGULATION

A. Capponi

S. Berger / A. Agarwal /
T. Balla / N. Cherradi

ANTIMICROBIAL PEPTIDES (NEW)

HOLIDAY INN

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MARCH 2 - 7, 1997

T. Ganz, *Chair*

J. Hoffmann & W. Broekaert,
Co-Vice Chairs

MAMMALS

M. Zanetti

K. Huttner / J. Weiss

HUMAN

T. Ganz

TBA

INSECTS

J. Hoffmann

C. Hetru / E. Levashina

OTHER INVERTEBRATES

R. Lebrer

M. Leippe

PLANTS

W. Broekaert

J. Bruenn / H. Bohlmann /

F. Garcia-Olmedo

AGRICULTURAL APPLICATIONS

A. Greenland

MECHANISMS OF ACTION

R. Hancock

M. Selsted / K. Matsuzaki /

J. Tam

REGULATION OF SYNTHESIS IN INSECTS AND MAMMALS

C. Bevins

Y. Engstrom

PHARMACEUTICAL APPLICATIONS

M. Zasloff

P. Elsbach / J. Fiddes /

R. Erwin

OVERVIEW

H. Boman

BIODEGRADABLE POLYMERS

IL CIOCCO

BARGA, ITALY

MAY 4 - 9, 1997

Emo Chiellini, *Chair*

Graham Swift, *Vice Chair*

SYNTHETIC AND SEMISYNTHETIC BIODEGRADABLE POLYMERS

C. Buchanan / T. Fujimaki /

P. R. Gruber / R. Gross /

S. Penczek / F. Rypacek /

G. Schornick / M. Tsuji

MICROBIAL POLYESTERS - SYNTHESIS AND DEGRADATION

G. Braunegg / Y. Doi /

S. Goodwin / R. W. Lenz

BLENDS AND COMPOSITES BASED ON BIODEGRADABLE POLYMERIC COMPONENTS

C. Bastioli / S. Huang /

G. Hinrichsen / S. H. Iman /

A.L. Pometto III

BIODEGRADABLE POLYMERS IN BIOMEDICAL AND PHARMACEUTICAL APPLICATIONS

J. Feijen / K. Kataoka /

C. Migliaresi / R.A. Muzzarelli /

J. Sunamoto / R. B. M. Tighe /

M. Vert

FATE AND RECOVERY OF BIODEGRADABLE POLYMERS

B. De Wilde / K. Fukuda /

R. Narayan / C. Pettigrew

BIOLOGICAL STRUCTURE AND GENE EXPRESSION

IL CIOCCO

BARGA, ITALY

APRIL 27 - MAY 2, 1997

Benjamin Geiger, *Chair*

Stephen Farmer, *Vice Chair*

THE INTEGRIN PATHWAY: FROM SURFACE RECOGNITION TO SIGNALING

D. Ingber

M. Ginsberg / B. Geiger /

P.-C. Marchisio

ADHESION-MEDIATED EFFECTS ON GENE EXPRESSION

A. Ben-Ze'ev

S. Farmer / Z. Werb / F. Watt

STRUCTURAL BASIS FOR DYNAMIC CYTOPLASMIC PROCESSES

M. Mooseker

K. Nasmyth / M. Way /

L. Cooley

CYTO-ARCHITECTURAL ASPECTS OF GENE EXPRESSION AND MORPHOGENESIS

M. Bissell

S. Dedhar / C. Damsky /

M. Schliwa

CYTOSKELETAL INVOLVEMENT IN RNA TRANSPORT, LOCALIZATION AND TRANSLATION

R. Singer

A. Matus / J. Carson /

I. Ginsburg

STRUCTURE-FUNCTION RELATIONSHIPS IN THE NUCLEUS

R. van Driel

S. Henikoff / A. Belmont /

T. Cremer

STRUCTURAL CONSIDERATIONS IN TRANSCRIPTION AND SPLICING

G. Stein

J. Lawrence / M. Bradbury /

D. Spector

DNA ORGANIZATION AND REPLICATION

G. Hager

T. Kohwi-Shigematsu /

R. Laskey / D. Coffey

INVOLVEMENT OF CELL ADHESION AND CYTOSKELETAL INTERACTIONS IN CELL GROWTH AND APOPTOSIS

R. Assoian

E. Ruoslahti / A. Bershadsky /

C. Schneider

CHEMICAL REACTIONS AT SURFACES

DOUBLETREE HOTEL

VENTURA, CA

FEBRUARY 16 - 21, 1997

B. E. Koel, *Chair*

SURFACE CHEMISTRY- THE STATE OF THE ART

E. Carter

B. Madix / M. Scheffler

STRUCTURE, BONDING AND SPECTROSCOPY

R. McFeely

N. Richardson / Y. Okawa /

P. Thiel / T. Hess / J.T. Yates

REACTION MECHANISMS, THERMODYNAMICS AND KINETICS

F. Zaera

D. King / K. Fichthorn /

J. Chen / W. Goodman /

A. Kummel

COMPLEX SURFACES AND ENVIRONMENTS

J. Hicks

M. Weaver / P. Stair /

A. Gewirth

OPPORTUNITIES AND NEW APPROACHES

J. Gland

P. Norton / B. Rogers /

J. Gimzewski / M. Knotek /

G. Somorjai

CHEMOTHERAPY OF AIDS

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W. Gary Tarpley, *Chair*

Carl W. Dieffenbach,

Vice Chair

HIV DISEASE: CHEMOTHERAPY AND PATHOGENESIS

D. Ho

EVENTS IN ACUTE INFECTION AND EARLY DISEASE

D. Ho

A. Fauci / L. Corey /

M. Markowitz

VIRUS BINDING, ENTRY AND ASSEMBLY

E. Berger

E. Berger / G. Henson /

T. Schall / S. Gracheck

NEW ANTIVIRALS

D. Kempf

S. Thaisrivongs / B. Larder /

N. Bischofberger / H. Sham

STRUCTURE BASED DESIGN

E. Arnold

M. Summers / E. Emini /

J. Erickson

EMERGING IMMUNE-BASED THERAPIES

N. Sarver

D. Weiner / M. Sykes /

J. Lieberman / J. Zaia

COMBINATION CHEMOTHERAPY IMPACT ON CLINICAL TRIAL DESIGN

R. Bebrman

R. Yarchoan / R. Schooley /

S. Spector

CHEMOTHERAPY OF HIV-1 INFECTION: THE PAST, PRESENT AND FUTURE

J. Mellors

TARGETING HIV CELLULAR COFACTORS

G. Tarpley

M. Stevenson / M. Emerman /

A. Heguy / F. Lori

VACCINE AND PREVENTION STRATEGIES UPDATE

C. Dieffenbach

D. Bolognesi / C. Miller

COMPOSITES

HARBORTOWN RESORT

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Lawrence T. Drzal, *Chair*

John Nairn, *Vice-Chair*

RESEARCH ISSUES FROM COMPOSITE APPLICATIONS

D. Grande

C. Johnson / C. Shutte /

P. M. Puckett

ADVANCES IN POLYMERS / REINFORCEMENTS

J. Miller

J. Connell / H. Ishida

STRUCTURE-PROCESSING-PROPERTY

(joint session with

GRC-Polymers)

W. Milner / D. D. Edie

FAST, ECONOMICAL PROCESSING

J. Dunkers

J. Lee / C. Carlson

ADVANCES IN MECHANICS AND FRACTURE OF COMPOSITES

R. Averill

M. Hyer / N. Pagano /

A. Balasz

FIBER-MATRIX INTERPHASE DESIGN

L. Penn

J. Thomason / R. Wool

**PREDICTING LONG-TERM
COMPOSITE BEHAVIOR**

R. Morgan
M. Mecklenberg /
K. Reifsnider / L. Phoenix

**INTEGRATED DESIGN AND
MANUFACTURING**

M. Hawley
J. Sticklen / T. Hahn

**COMPUTER AIDED
ENGINEERING IN
POLYMER
PROCESSING (NEW)**

HARBORTOWN RESORT
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Musa R. Kamal &
Gibson L. Batch, *Co-Chairs*

**OVERVIEW AND INDUSTRIAL
ASSESSMENT**

M. R. Kamal
G. L. Batch / H. Cox /
P. Kennedy

CONTINUOUS PROCESSES

G. Campbell
K. S. Hyun / M. Spalding /
J. White

CYCLICAL PROCESSES

J. Ulicny
D. Guell / V. W. Wang

COMPOSITES

T. Papathanasiou
S. Guceri / F. Phelan /
C. Tucker

**REACTIVE SYSTEMS
AND BLENDS**

D. Coyle
A. Hrymak / H. Meijer

RHEOLOGY

R. Bay
N. Phan-Thien

**MODELING &
NUMERICAL METHODS**

D. Bigio
J.-F. Agassant / A. Malkin /
T. Osswald / P. R. Schunk

**SOLIDIFICATION AND THERMAL
PHENOMENA**

G. Eder
A. Isayev / V. K. Stokes

MIXING

D. Sebastian
I. Manas-Zloczower /
P. Tanguy

ELECTROCHEMISTRY

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Owen R. Melroy, *Chair*
Jeanne E. Pemberton,
Vice Chair

SURFACES

I. Fritsche-Faules /
J. Lipkowski / M. Osawa /
D. Rugar / A. Tadjeddine

KINETICS

N. Lewis / C. Miller /
M. Sluyters-Rehbach /
M. Weaver

DISPLAYS

A. Heeger / J. Talbot

**ELECTROCHEMICAL
AMPLIFICATION**

D. Buttry / L. Coury /
C. Mirkin

TRANSPORT / SEPARATIONS

C. Kovel / J. Leddy

**FIBRONECTIN,
INTEGRINS AND
RELATED MOLECULES**

HOLIDAY INN
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JANUARY 26 - 31, 1997
Martin E. Hemler, *Chair*
Caroline Damsky, *Vice Chair*

INTEGRIN SIGNALING

K. Yamada
M. Schwartz / Z. Werb /
K. Vuori

INTEGRIN-ASSOCIATED PROTEINS

M. Ginsberg
F. Berditchevski / H. Petty /
H. Chapman

**DISINTEGRIN/ADAMS
STRUCTURES AND FUNCTIONS**

J. White
D. Pan / A. Fujisawa-Sehara /
R. Black

**GENETIC APPROACHES/
KNOCKOUTS**

R. Hynes
C. Parker / D. Sheppard

**STRUCTURE/FUNCTION ANALYSIS
OF PECTINS AND INTEGRINS**

J. Schwarzbauer
R. Liddington / M. Sheetz /
D. J. Leahy

ADHESION AND INVASION

D. Cheresh
Y. Shimizu / W.-T. Chen

**PHOSPHOINOSITIDE
SIGNALING (SPECIAL TOPIC)**

L. Cantley

**FIBRONECTIN,
THROMBOSPONDIN**

E. Ruoslahti
E. Brown / W. Frazier

**ADHESION, SIGNALING
AND DEVELOPMENT**

C. Damsky
R. Fassler / D. Brower /
S. Shattil

GLYCOBIOLOGY

HARBORTOWN RESORT
VENTURA, CA
FEBRUARY 2 - 7, 1997
Gerald W. Hart &
Annette Herscovics,
Co-Chairs
John Lowe, *Poster Chair*

**METHODS & STRUCTURAL
BIOLOGY OF GLYCOCONJUGATES**

A. Dell / S. Homans

**SUGAR NUCLEOTIDES &
GLYCOSYLTRANSFERASES**

C. Hirschberg / P. Stanley

MUCINS & PROTEOGLYCAN

R. Hill / V. Hascall

**N-GLYCANS: BIOSYNTHESIS &
FUNCTIONS**

H. Schachter / A. Herscovics

**BACTERIAL AND EUKARYOTIC
GLYCOLIPIDS**

C. Raetz / S. Hakomori

SIALIC ACIDS

A. Varki / R. Troy

GPI-ANCHORS

A. Menon / P. Orlean

GLYCOBIOLOGY OF PARASITES

S. Turco / R. Cummings

**GLYCOBIOLOGY IN
DEVELOPMENT & DISEASE**

J. Baenziger / W. Lennarz

**GRADUATE RESEARCH
SEMINAR IN
BIOINORGANIC
CHEMISTRY**

HARBORTOWN RESORT
VENTURA, CA
JANUARY 23 - 26, 1997
Shari Ulldrich Dunham, *Chair*

**IRON-SULFUR CLUSTER
PROTEINS: I**

E. Munk
C. Achim / S. Kazanis /
K. Natarajan

**IRON-SULFUR CLUSTER
PROTEINS: II**

S. Ragsdale
M. Rasche / S. Menon

**SMALL MOLECULE-DNA
INTERACTIONS**

S. U. Dunham
M. J. Bloemink / S. O. Kelley /
U. Bierbach

METALS AND GENE REGULATION

V. DeRose

M. Posewitz

IRON OXIDASES

S. J. Lippard
L. Shu / A. Valentine /
L. Fu / C. Slutter

COPPER PROTEINS

D. M. Dooley
M. M. Ivkovic-Jensen /
S. Dong / T. Machonkin

SPECIAL TOPIC

B. Hansert

**HYDROCARBON
RESOURCES**

HOLIDAY INN
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JANUARY 12 - 17, 1997
Isao Mochida &
W. Roy Jackson, *Co-Chairs*
John H. Shinn, *Vice Chair*

**CURRENT ISSUES IN FUEL
PROCESSING; CRITICAL
INFORMATION ON STRUCTURE
AND REACTIVITY**

M. Farcasiu / W. R. Jackson
W. R. Jackson /
M. Boduszynski

**TAILORING CATALYST
PROPERTIES FOR SELECTIVE
HYDROCARBON CONVERSION**

M. E. Davis / M. Misono /
C. Kresge / M. Onaka /
M. E. Davis

**UNDESIRE PRODUCTS AND
THEIR CONSEQUENCES IN
HYDROCARBON CONVERSION**

R. T. K. Baker / D. L. Trimm /
D. D. Whitehurst /
N. Rodrigues

**MECHANISTIC INSIGHTS OF
HYDROCARBON CONVERSIONS**

M. T. Klein / M. Nomura /
C. Song / A. Nishijima /
J.-L. M. Faulon

**MECHANISMS AND
REACTION SCHEMES FOR
DESULFURIZATION**

H. Topsoe / T. Takatsuka /
R. A. Sanchez-Delgado /
Y. Inoue

**HIGH PERFORMANCE
CARBONS FOR ENERGY
AND ENVIRONMENTAL
CONSERVATION**

E. Suuberg / S. Uemura /
D. D. Edie / S. Tennison /
K. Kubomura

**NOVEL CONCEPTS IN ENERGY
STORAGE BASED ON CARBON
MATERIALS**

R. E. Winans /
B. McEnaney /
M. Endo / D. Quinn

**PANEL DISCUSSION -
HYDROCARBON UTILIZATION
IN THE 21ST CENTURY: THE
TWILIGHT YEARS OR THE
DAWNING OF A BRAVE
NEW WORLD?**

J. H. Shinn
A. Kaldor / M. Kitagawa /
A. Dearing / A. Ekstrom

TALKS FROM BEST POSTERS

R. Malhotra / C. L. Raston /
K. Miura / T. Kobayashi

INORGANIC REACTION MECHANISMS (NEW)

HARBORTOWN RESORT
VENTURA, CA
MARCH 2 - 7, 1997

Jim Espenson, *Chair*
Dale W. Margerum,
Vice Chair

OXYGEN MECHANISMS

R. Balabura
M. Darensbourg / J. Groves

ELECTRON TRANSFER

M. Hoffman
H. Taube / H. Gray /
A. Sargeson

APPLICATIONS IN MEDICINE

C. Riordan
I. Levitin / D. Dolphin

CATALYTIC CHEMISTRY

M. Bullock
S. Scott / C. Hill / A. Butler

TRANSITION ELEMENTS I

A. Haim
J. Perez-Benito / J. Mayer

ORGANOMETALLIC SYSTEMS

C. Riordan
M. Ashby / R. Bergman /
D. Harman

TRANSITION ELEMENTS II

R. Balabura
S. Isied / Y. Sasaki

MAIN GROUP AND TRANSITION ELEMENTS

A. Haim
D. Stanbury / A. Bakac /
D. Margerum

KALLIKREINS AND KININS

IL CIOCCO
BARGA, ITALY
APRIL 27 - MAY 2, 1997
W. Müller-Esterl, *Chair*
B. Colman, *Vice-Chair*

G PROTEIN-COUPLED RECEPTORS - STRUCTURE AND FUNCTION

D. Proud
T. Schwartz /
F. Leeb-Lundberg /
C. Schroeder

TRANSDUCTION PATHWAYS - SIGNALING AND CROSS-TALK

E. Erdös
J. Schlessinger /
H. Higashida / G. Burgess

KININ RECEPTORS - REGULATION AND EXPRESSION

D. Regoli
M. Bouvier / A. Faussner /
F. Marceau

RECEPTOR ANTAGONISTS - CHEMISTRY AND PHARMACOLOGY

B. Schölkens
N. Inamura / T. Griesbacher

KININ SYSTEMS - DISTRIBUTION AND LOCALIZATION

T. Berg
F. Mendelsohn / C. Figueroa

CELL-ASSOCIATED SYSTEMS - RECEPTORS AND MEDIATORS

H. Fritz
A. Schmaier / B. Colman

TRANSGENIC ANIMALS - KNOCK- OUTS AND KNOCK-DOWNS

H. Margoliuss
C. Wahlestedt / P. Geppetti /
J. Pesquero

MAGNETIC RESONANCE IN BIOLOGY AND MEDICINE

DOUBLETREE HOTEL
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JANUARY 26 - 31, 1997
Hans Thomann, *Chair*
David Wemmer, *Vice Chair*

NUCLEIC ACID PEPTIDE INTENTIONS

J. Williamson
P. Wright / G. Varani /
G. Drobny

OPTICALLY INDUCED SPIN COHERENCE

J. Norris
A. Van der Est / G. Kothe

PHOTOSYNTHESIS

M. Klein
K. Möbius / A. McDermott /
D. Britt

MEMBRANE PROTEINS

G. Millhauser
W. Hubbell / A. Beth

METALLOPROTEINS

G. LaMar
E. Gaffney / E. Groenen /
I. Bertini

NEW METHODS FOR THE SOLID STATE

D. Singel
J. McCracken / R. Griffin

STRUCTURE AND DYNAMICS IN THE SOLID STATE

L. Jelinski
J. Schaefer / R. Vold /
R. Tycko

NEW DIRECTIONS IN BIOPHYSICS

H. McConnell

PROTEIN DYNAMICS IN THE LIQUID STATE

J. Wand
A. Palmer / J. Prestegard /
D. Torchia

MAMMALIAN DNA REPAIR

DOUBLETREE HOTEL
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FEBRUARY 2 - 7, 1997
Malcolm C. Paterson, *Chair*
Philip C. Hanawalt,
Vice Chair

HUMAN DNA REPAIR: ITS RICH HISTORY AND FUTURE PROSPECTS

D. Bootsma

DNA LESION STRUCTURE / REPAIR PROTEIN RECOGNITION

S. Wilson
M. Smerdon / J. Tainer /
B. van Houten / S. Wallace

DNA REPAIR PATHWAYS I

P. Hanawalt
P. Cooper / A. Lehmann /
B. Sutherland /
A. Tomkinson / S. Wilson

DNA REPAIR PATHWAYS II

E. Friedberg
D. Chen / M. Liskay /
I. Mellon / P. Sung

DNA REPAIR / BIOLOGICAL DIVERSITY / ENVIRONMENTAL GENOTOXICITY

J. Cleaver
J. Battista / J. Hays /
D. Karentz / R. Nairn /
A. Yasui

OXIDATIVE DNA DAMAGE / HUMAN DEGENERATIVE DISEASES

H. Warner
R. Floyd / R. Lebowitz /
L. Loeb / G. Martin /
G. Wilson

GENOMIC SURVEILLANCE NETWORK I

L. Hartwell
S. Friend / W. Morgan /
P. O'Connor / G. Poirier /
T. Weinert

GENOMIC SURVEILLANCE NETWORK II

H. S. Meyn
C. Anderson / M. Buchwald /
J. Groden / M. Lavin

METALS IN BIOLOGY

HARBORTOWN RESORT
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JANUARY 19 - 24, 1997
Joann Sanders-Loehr, *Chair*
Kenneth Karlin, *Vice Chair*

MODELS FOR METAL CATALYSIS

J. Valentine
L. Que, Jr. / J. Mayer

DESIGNING PROTEINS WITH METAL SITES

G. Mauk
W. DeGrado / L. Regan /
J. Winkler / A. Borovik

MOLYBDENUM OXIDASES AND REDUCTASES

J. Enemark
D. Rees / C. Young

COPPER OXIDASES

H. Freeman
D. Dooley / J. Klinman /
K. Karlin / G. Canters

MANGANESE OXIDASES

R. Czernuszewicz
M. Gold / J. Whittaker

METALS AND GENE REGULATION

D. Kosman
A. Summers / D. Winge /
V. Culotta / A. Dancis

METALLOENZYMES IN BIOREMEDIATION

R. Hausinger
L. Wackett / B. Fox

IRON OXIDASES

J. Dawson
B. Hoffman /
S. Ferguson-Miller /
P. Ortiz de Montellano /
D. Goodin

A LOOK TO THE FUTURE

J. Fee
D. Dolphin

MODERN DEVELOPMENTS IN THERMODYNAMICS

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Peter Salamon, *Chair*
Bjarne Andresen, *Vice Chair*

THERMODYNAMICS OF COMPUTATIONAL SYSTEMS

W. Reinhardt
R. S. Berry / C. Brooks /
C. Schoen

COSMOLOGY AND THERMODYNAMICS OF BASIC PHYSICAL PHENOMENA

P. Landsberg
A. De Vos / G. P. Beretta /
A. C. Elitzur / J. Katz

THERMODYNAMICS IN CHEMICAL ENGINEERING

B. Joergensen
B. Linnhoff / Z. Fonyo /
G. Yablonskii

THERMODYNAMICS OF LIVING SYSTEMS

J. Shiner
J. P. Crutchfield / J. J. Kay /
T. Schneider

THERMODYNAMICS IN MECHANICAL ENGINEERING / FINITE-TIME THERMODYNAMICS OF HEAT ENGINES

J. Gordon
J. Nulton / J. Kreider /
K. C. Ng / J. Senft

GEOMETRY AND THERMODYNAMICS

G. Ruppeiner

P. Salamon / H. Ries /
S.-I. Amari

THERMODYNAMICS OF QUANTUM SYSTEMS

R. Kosloff

D. Tannor / E. Geva /
J. Aspended / S. Loyd

THERMODYNAMICS OF PHENOMENA WHICH DISAPPEAR IN THE LIMIT OF EQUILIBRIUM

G. Nicolis

R. Lefever / C. Doering /
C. Beck / B. C. Eu

MOLECULAR ENERGY TRANSFER

HOLIDAY INN

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Millard Alexander &
Marsha Lester, *Co-Chairs*

ENERGY TRANSFER IN CLUSTERS

C. Lineberger

U. Buck / R. Miller /
B. Whaley

NON-ADIABATIC EFFECTS IN REACTIONS AND PHOTODISSOCIATION

H. Reisler

P. Dagdigian / R. Gordon /
D. Yarkony

COLLISION PROCESSES IN COMBUSTION/ ATMOSPHERIC/ ASTROPHYSICAL ENVIRONMENTS

D. Crosley

K. Kohse-Höinghaus /
J. Barker / E. Herbst

ENERGY TRANSFER IN CONDENSED PHASES

A. Myers

R. Hochstrasser / C. Martens /
M. Fayer

ENERGY TRANSFER IN REACTIVE ENCOUNTERS

A. Laganà

I. Smith / U. Manthe /
D. Manolopoulos

COLLISIONS OF HIGHLY EXCITED MOLECULES

G. Flynn

H.-L. Dai / G. Schatz

COLLISIONS OF STATE-SELECTED OR ALIGNED MOLECULES

C. Wittig

B. Orr / S. Leone

INTRAMOLECULAR VIBRATIONAL RELAXATION

F. F. Crim

R. Field / E. Sibert

INELASTIC COLLISION DYNAMICS AND REACTIONS

S. Chapman

P. Houston / H.-J. Werner

MOLECULAR PHARMACOLOGY

HOLIDAY INN

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Shaun R. Coughlin, *Chair*

Joan Heller-Brown,
Vice Chair

HETEROTRIMERIC G PROTEINS

H. Bourne

S. Sprang / H. Hamm /
M. Koelle

G PROTEIN-COUPLED RECEPTOR STRUCTURE

R. Henderson

W. Hubbell / B. Kobilka /
H. R. Kaback

GPCR TRAFFICKING AND FUNCTION

L. Limbird

M. Caron / L. Jan / TBA

KINASES

G. Johnson

L. T. Williams / A. Weiss /
Z. Cao

DIVERSE ROLES OF SMALL G PROTEINS: SIGNALING, TRAFFICKING, AND POLARITY

I. Herskowitz

G. Bokoch / S. Schmid /
M. Ginsberg

TRANSCRIPTION

J. Darnell

M. Karin / C. Glass / V. Dixit

GENETIC MODELS

R. Lefkowitz

N. Hopkins / M. Yanagisawa /
TBA

APPROACHES TO THERAPEUTIC DEVELOPMENT

F. Cohen

J. Ellman / C. Khosla / TBA

SPECIAL WORKSHOP: IMPACT OF THE GENOME PROJECT ON SIGNALING RESEARCH

I. Herskowitz

SPECIAL LECTURE: MOLECULAR GENETICS OF HUMAN HYPERTENSION

R. Lifton

NEUROENDOCRINE-IMMUNOLOGY

HOLIDAY INN

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Vincent Geenen, *Chair*

Bruce S. McEwen, *Vice Chair*

PHYSIOLOGY OF THE THYMUS

R. Scollay

P. Matzinger / M. Vacchio /
K. Bulloch

IMMUNITY IN THE CENTRAL NERVOUS SYSTEM

T. Bartfai

N. J. Rothwell / R. Bernardini /
J. E. Merrill

GUT IMMUNITY

E. J. Goetzl

S. O'Dorisio / L. Lefrancois /
J. Bienenstock

GONADAL AND REPRODUCTIVE IMMUNOLOGY

E. Y. Adashi

C. L. Stewart / G. Chaouat /
C. Loke

PANCREAS AND INSULIN-DEPENDENT DIABETES

N. K. MacLaren

A. Cooke / A. Rossini or
D. Greiner / C. Thivolet /
C. Polychronakos

THYROID AND RELATED AUTOIMMUNE DISEASES

G. Vassart

T. F. Davies / R. Paschke /
A. P. Weetman

THE IMMUNE SYSTEM AND THE HYPOTHALAMO-HYPOPHYSIAL AXIS

K. E. Kelley

S. Melmed / A. Grossman /
P. A. Kelly

IMMUNE-CORTICOTROPE AXIS INTERACTIONS

C. Rivier

G. P. Chrousos / F. J. Tilders /
E. B. de Souza

PERSPECTIVES ON PEPTIDE-LYMPHOCYTE INTERACTIONS

L. Adorini

C. J. Heijnen / A. M. Vollmar

NITRIC OXIDE IN BIOCHEMISTRY AND BIOLOGY

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Louis J. Ignarro &

Jean LeGall, *Co-Chairs*

Owen W. Griffith, *Vice Chair*

CHEMISTRY AND BIOLOGY OF NITRIC OXIDE: OVERVIEWS

L. J. Ignarro

J. Le Gall / O. W. Griffith /
W. A. Pryor

BIOSYNTHESIS OF NITRIC OXIDE

O. W. Griffith

D. J. Stuehr / J. Salerno /
B. S. Masters

REGULATION OF NITRIC OXIDE PRODUCTION

U. Förstermann

S. S. Gross / T. Michel /
E. I. Closs

MOLECULAR MECHANISMS OF NITRIC OXIDE CYTOTOXICITY

J. M. Fukuto

D. A. Wink / J. Beckman /
H. Sies

OXIDATIVE STRESS AND NITRIC OXIDE

B. A. Freeman

M. S. Wolin / B. Demple /
M. B. Grisham

BACTERIAL NITRIC OXIDE METABOLISM: ECOLOGICAL ASPECTS

W. J. Payne

J. S. Shapleigh / R. Conrad /
N. Benjamin

TRANSCRIPTIONAL AND POSITRANSLATIONAL REGULATION OF HIGH-OUTPUT NO PRODUCTION

C. F. Nathan

SIGNAL TRANSDUCTION MECHANISMS AND NITRIC OXIDE

J. Lancaster

J. N. Burstyn / J. Garthwaite /
J. Stamler

BACTERIAL AND FUNGAL NITRIC OXIDE METABOLISM

W. G. Zumpft

R. J. M. Van Spanning /
H. Shoun / M. Cheesman

POLYMERS (WEST)

HARBORTOWN RESORT

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JANUARY 5 - 10, 1997

Ed Samulski *Chair*

Anna Balazs *Vice Chair*

BLOCK COPOLYMERS

R. Stadler / A. Eisenberg

INTERFACIAL FRICTION

S. Granick / L. Leibler /
T. Lodge

JOINT SESSION WITH COMPOSITES

S. Milner / D. Edie

RHEO-NMR, OPTICS, AND SCATTERING

P. Callaghan / G. Fuller /
A. Nakatani

PROPERTIES

M. Warner / M. Galvin

SYNTHESIS

G. Willson / M. Antonetti /
D. O'Brian / A. Feiring

CHARGED POLYMERS

C. Williams / K. Kremer

PROTONS & MEMBRANE REACTIONS

HARBORTOWN RESORT
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Terry A. Krulwich, *Chair*
Robert H. Fillingame,
Vice Chair

WATER-FORM, ROLE, SELECTIVITY ISSUES IN CONNECTION WITH MEMBRANE PROTEINS

S. Scheiner
G.M. Clore / M.S.P. Sansom /
P. Agre

MEMBRANE PROTEIN FOLDING

S. White
S. McLaughlin / B. Honig /
J. Skolnick / T. Cross

ION-TRANSLOCATING CHANNELS AND TRANSPORTERS

E. Padan
H. Lester / S. Schuldiner /
H.R. Kaback

STRUCTURAL CORRELATES TO ENERGY-COUPLING BY ATP SYNTHASE

R. Fillingame
S. Vik / M. Girvin / R. Capaldi /
W. Junge

INTEGRATION OF NEW STRUCTURAL INFORMATION INTO MODELS OF CYTOCHROME OXIDASE FUNCTION

S. Ferguson-Miller
H. Michel / P. Rich /
G. Babcock / A. Konstantinov

THE PATH OF PROTONS THROUGH AND ON THE SURFACE OF BACTERIORHODOPSIN

M. Gutman
Y. Kimura / J. Lanyi /
E. Bamberg / N. Dencher /
E. Nachliel

PHOTOSYNTHETIC REACTION CENTER—WHAT ANSWERS YEARS AFTER THE SOLUTION?

M. Gunner
C. R. D. Lancaster /
M. Paddock / C. Wraight

COMPLEX III AND FANTASIA ON COMPLEX III

W. Cramer
D. Xia / P. L. Dutton

QUANTITATIVE GENETICS AND BIOTECHNOLOGY

DOUBLETREE HOTEL
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FEBRUARY 9 - 14, 1997

Bill Beavis, *Chair*
Margarite Dentine, *Vice Chair*

QTL: BEYOND EXPERIMENTAL POPULATIONS, METHODS

B. Weir
I. Hoeschele / N. Schork

QTL: BEYOND EXPERIMENTAL POPULATIONS, RESULTS

M. Dentine
M. Lathrop / J. vanArendonk

QTL FOR BEHAVIORAL TRAITS

R. Karp
W. Berrettini / D. Fulker

LEVERAGING SYNTENY FOR QTL

J. Benmetzen
A. Paterson / A. Kleinhoff /
J. Nadeau

RELATIONSHIPS BETWEEN SEQUENCE DATA AND QT EXPRESSION

R. Doerge
A. Templeton / R. Lewontin

BEYOND QTL: DISSECTING AND EVALUATING CANDIDATE GENES FOR EXPRESSION OF QT

T. Helentjaris
M. McMullen / O. Smithies

BEYOND QTL: EPISTASIS IN SEGREGATING POPULATIONS

P. Phillips
T. Mitchel-Olds / J. Cheverud

GENETIC NETWORKS: REALITY AND THEORETICAL MODELLING APPROACHES

B. Bowen
L. Rieseberg / H. McAdams /
J. Reinitz

QUANTITATIVE GENETICS IN MODEL SYSTEMS

A. Clark
C. Laurie / L. Silver

QUINONE & REDOX ACTIVE AMINO ACID COFACTORS

IL CIOCCO
BARGA, ITALY
MAY 4 - 9, 1997
Peter F. Knowles, *Chair*
Joanna Stubbe, *Vice Chair*

OXYGENASES

J. D. Lipscomb / B. Eipper

OXIDASES

J. W. Whittaker /
D. M. Dooley / H. J. Kagan /
M. J. McPherson

PEROXIDASES

T. L. Poulos

REDUCTASES

M. Fontecave / J. Stubbe

DEHYDROGENASES

F. S. Matthews / C. Anthony

REARRANGEMENTS

P. F. Leadley / P. Frey

AMINO ACID RADICALS IN BIOLOGY AND MEDICINE

G. T. Babcock

BIOGENESIS OF COFACTORS; NEW COFACTORS

M. E. Lidstrom / K. Tanizawa /
J. Retey

MODEL SYSTEMS

W. B. Tolman / S. Itoh

KEYNOTE ADDRESSES

J. P. Klinman / C. Luchinat

RNA EDITING (NEW)

DOUBLETREE HOTEL
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JANUARY 19 - 24, 1997

Harold C. Smith, *Chair*
Jonatha M. Gott &
Maureen R. Hanson,
Co-Vice Chairs

IDENTIFYING NOVEL RNA EDITING SITES & MODELING OF FUNCTIONAL MOTIFS

R. Benne
P. Seeburg /
J. -M. Grienemberger /
S. Steinberg / D. Landsman /
S. Mian

MOLECULAR EVOLUTION OF EDITING AND EDITING MECHANISMS

L. Simpson
D. Miller / V. Knoop /
K. Stuart / L. Landweber

MECHANISMS OF RNA EDITING I: CIS-ACTING FACTORS

H. Grosjean
P. Maliga / J. McSwiggen /
D. Kolakofsky / D. Driscoll

MECHANISMS OF RNA EDITING II: TRANS-ACTING FACTORS

H. C. Smith
K. Nishikura / J. Ofengand /
S. Hadjuk / T. Innerarity /
D. Koslowsky

MECHANISMS FOR RNA EDITING III: IN-VITRO SYSTEMS

J. Gott
B. Sollner-Webb / M. Gray /
D. Morse / W. Schuster /
R. Emeson / S. Litvak

FUNCTIONAL IMPLICATIONS OF RNA EDITING

M. Hanson
N. Davidson / M. Mulligan /
S. Heinemann / S. Pääbo /
S. Sukarmar

GENETICS OF EDITING AND IMPLICATIONS FOR ITS REGULATION

A. Hopper
L. Chan / J. Desgres /
P. Sloof / J. Casey

STRUCTURAL BIOLOGY AND MACRO-MOLECULAR INTERACTIONS

J. Keene
C. Carter / J. Scott /
A. Herbert / D. Stern

RNA EDITING IN CONTEXT WITH OTHER FORMS OF RNA PROCESSING

W. Keller
M. Sowden / N. Martin /
C. Greer / L. Bonen

SALIVA AND SALIVARY GLANDS (NEW)

HOLIDAY INN
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Lawrence Tabak, *Chair*

DEVELOPMENT

M. Snead
S. Beckendorf / L. Yamasaki

DEVELOPMENT

M. Kukuruzinska
H. Kleinman / P. Ekblom /
Y. Nakanishi

SALIVARY GLAND-SPECIFIC GENE-EXPRESSION

L. Bobek
D. Ann / C. McDonald /
R. MacDonald

SALIVARY GLAND-SPECIFIC GENE-EXPRESSION/ POST-TRANSLATIONAL MODIFICATIONS

D. Carlson
B. O'Connell / H. Clausen /
D. Williams

POST/TRANSLATIONAL MODIFICATIONS/ PROTEIN SORTING

L. Tabak
S. Gendler / P. Arvan

PROTEIN SORTING

B. Baum
J. Nelson / D. Castle

PROTEIN FUNCTION

F. Oppenheim
M. Zasloff

SALIVARY GLAND FUNCTIONS

M. Levine
T. Gerken / R. Mathison

ION MOVEMENT AND WATER CHANNELS

J. Tumer
D. Gallacher / D. Cook /
S. Muallem / P. Agre

CALCIUM SIGNALING

I. Ambudkar
J. Putney / I. Schulz /
O. Petersen

SEA ICE ECOLOGY (NEW)

HARBORTOWN RESORT
VENTURA, CA
MARCH 2 - 7, 1997
S. F. Ackley, *Chair*
L. Legendre, *Vice Chair*

**SETTING THE SCENE—SEA ICE
RESPONSE TO ATMOSPHERIC
AND OCEANIC FORCING**

W. F. Weeks / C. W. Sullivan
P. Lemke / H. Eicken

**ENERGY AND MASS EXCHANGES
IN SEA ICE SYSTEMS**

M. Lange
D. Perovich / V. Lytle /
V. Squire

ICE EDGE ECOLOGY

P. Treguer
C. Lancelot / H. Marchant

**ICE-RELATED PRIMARY
PRODUCTION**

S. Taguchi
E. Sakshaug / W. O. Smith /
M. Gosselin / I. Melnikov

**ABIOTIC FACTORS CONTROLLING
STRUCTURE AND FUNCTION OF
SEA ICE COMMUNITIES**

G. Dieckmann
M. Gleitz / C. Fritsen

**INTERNAL SEA ICE
COMMUNITIES AND THEIR
TROPHIC STRUCTURES**

M. Spindler
R. Rivkin / S. Grossmann /
R. Gradinger / D. Garrison

**PELAGIC ORGANISMS
ASSOCIATED WITH SEA ICE**

B. Gullicksen
L. Fortier / V. Spiridonov

SEA-ICE RELATED CARBON FLUX

S. Honjo
L. Codispoti / K. Takahashi /
C. Michel / M. Fukuchi

ICE-RELATED APEX PREDATORS

O. J. Lonne
H. Hop / W. Trivelpiece

**STRUCTURES,
ENERGETICS AND
DYNAMICS OF
GASEOUS IONS**

DOUBLETREE HOTEL
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Robert R. Squires, *Chair*
Tomas Baer, *Vice Chair*

ION-SURFACE INTERACTIONS

S. L. Bernasek
R. G. Cooks / V. H. Wysocki

ORGANIC MECHANISMS

H. Schwarz
C. H. DePuy / J. L. Holmes /
H. F. Grützmacher

ATMOSPHERIC CHEMISTRY

C. J. Howard
L. G. Huey / K. A. Prather

REACTION DYNAMICS

D. P. Ridge
C. Lifshitz / R. C. Dunbar /
S.-K. Shin

THEORY

S. Gronert
W. L. Hase / W. T. Borden

**BIOLOGICAL / ELECTROSPRAY
IONIZATION**

J. A. Leary
S. A. McLuckey /
E. R. Williams / M. T. Bowers

MOLECULAR CLUSTERS

A. W. Castleman
M. Mautner / A. A. Viggiano

**SPECTROSCOPY /
THRESHOLD IONIZATION**

M. A. Johnson
W. C. Lineberger / E. R. Grant /
K. Müller-Dethlefs

**FLOWING AFTERGLOW STUDIES
OF ION / MOLECULE REACTIONS,
1964-1996**

E. E. Ferguson

SUPERCONDUCTIVITY

HARBORTOWN RESORT
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JANUARY 12 - 17, 1997
D. K. Finnemore, *Chair*
Colin Gough & Bertrum
Batlogg, *Co-Vice Chairs*

FUNDAMENTALS

J. Jorgensen
D. Scalapino / Z. Fisk

VORTICES

D. Nelson / E. Forgan /
M. Beasley / E. Zeldov /
J. Schilling

PHOTOEMISSION

M. Onellion
M. Norman / C. Olson

OPTICAL PROPERTIES

M. Cardona
T. Timusk / K. Kadowaki

**NORMAL STATE AND
TRANSPORT PROPERTIES**

Boebinger / Mackensie /
D. Ginsberg

**CHARGE AND FLUX
QUANTIZATION**

C. Lobb
M. Tinkham / Haviland /
S. Girvin

**STRIPE PHASES AND
HOLE LOCALIZATION**

V. Emery
J. Tranquada / Kivelson /
P. Hammel / R. Stern

**TUNNELING AND THE
ORDER PARAMETER**

A. Goldman
D. Fischer / R. Greene /
Wellstood

NICKEL BORIDES

P. Canfield
P. Gammel / A. Goldman /
Beyermann

**TEMPERATURE
STRESS IN PLANTS**

HARBORTOWN RESORT
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Donald R. Ort, *Chair*
Charles L. Guy, *Vice Chair*

**POSSIBLE MECHANISTIC
LINKS BETWEEN TEMPERATURE
AND DROUGHT STRESS
RESPONSES**

M. Thomashow
K. Shinozaki / M. Knight

**THE NEXT 50 YEARS -
THE ULTIMATE CHALLENGE FOR
AGRICULTURAL RESEARCH?**

M. Chrispeels
G. Gardner / D. Feeney / P. Day

**LOW TEMPERATURE INDUCED
METABOLIC RESPONSES**

T. Sharkey
I. Raskin / N. Baker / B. Green

**TEMPERATURE SENSING AND
SIGNAL TRANSDUCTION
PATHWAYS**

F. Schöffl
J. Kreps / M. Walker-Simmons /
N. Murata / B. Meresca

**ROLE OF MEMBRANES IN
TEMPERATURE STRESS
TOLERANCE**

P. Steponkus
M. Hughes / TBA / T. Sakamoto

**MOLECULAR BASIS FOR
VERNALIZATION**

J. Zeevaart
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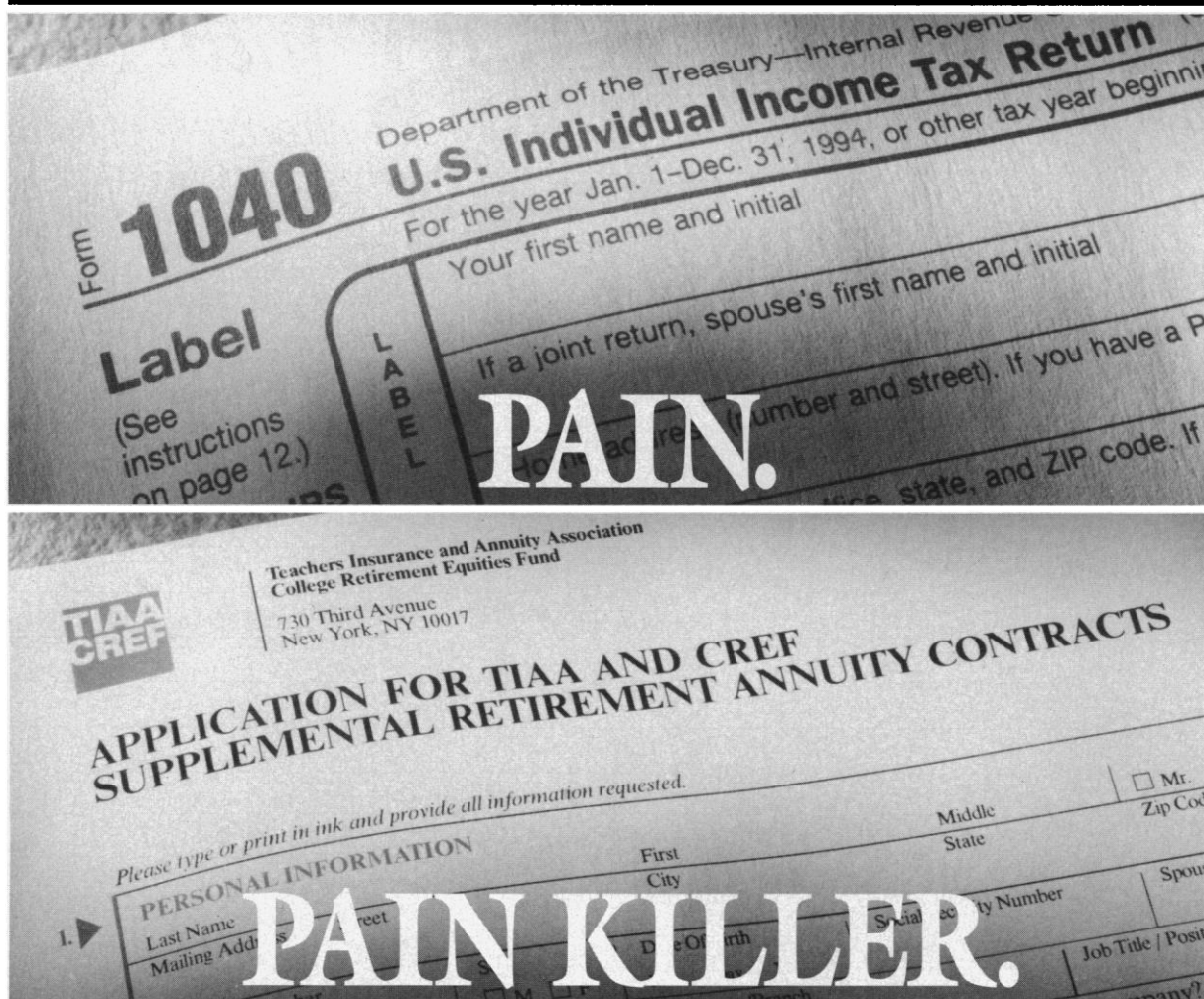
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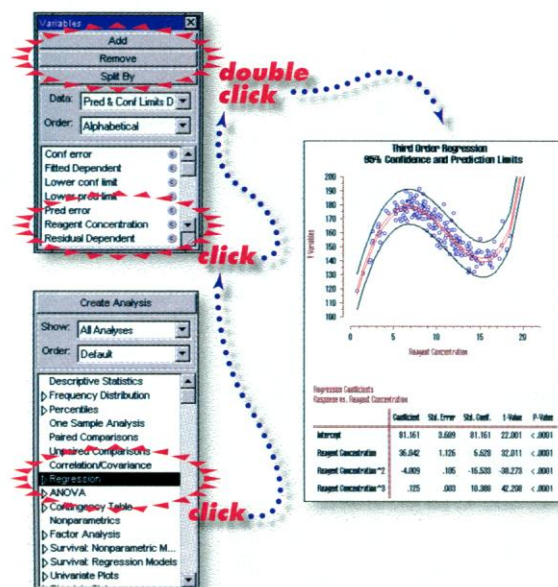
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Wang, X. et al. Matrix metalloproteinase inhibitor BB-94 inhibits human colon tumor growth and spread in a patient like orthotopic model in nude mice. *Cancer Res.* 54, 4726-28 1994

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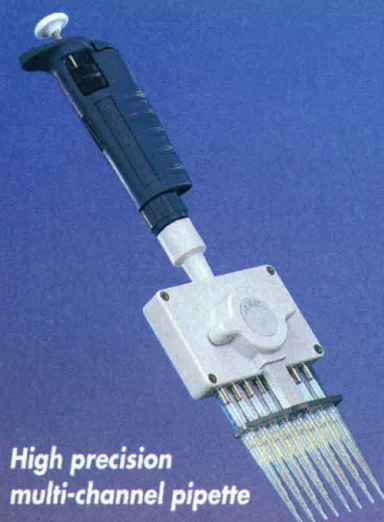
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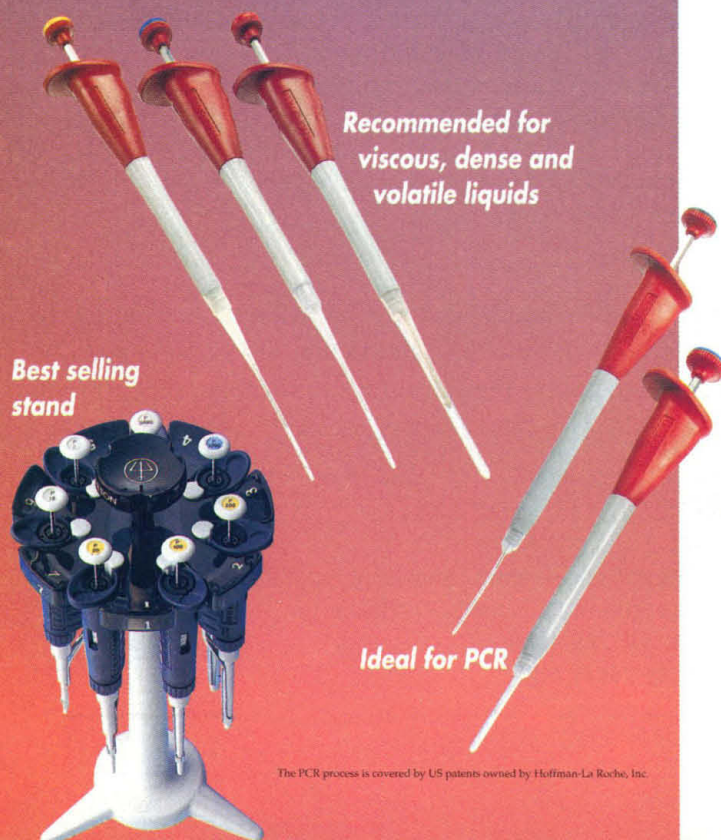
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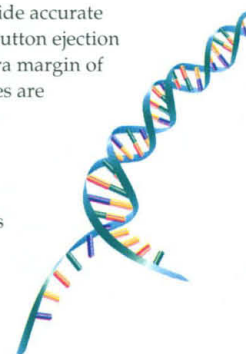
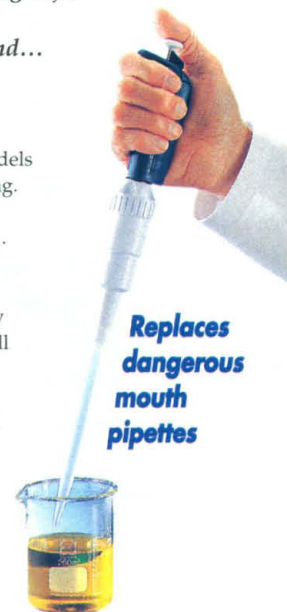
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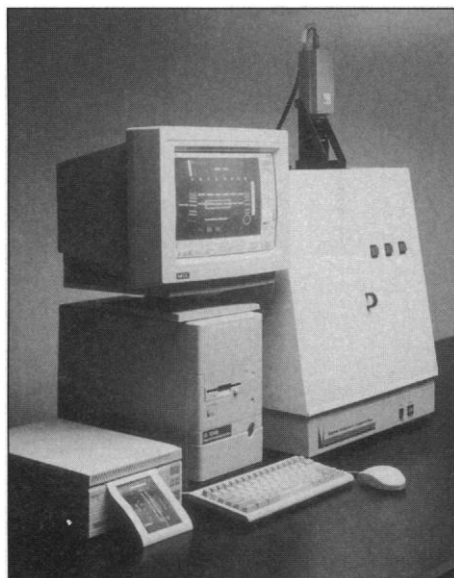
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POSITIONS OPEN

ASSISTANT PROFESSOR (TENURE-TRACK) MICROBIOLOGY AND IMMUNOLOGY Medical College of Ohio

We invite applications for a tenure-track, full-time **FACULTY POSITION**. Applicants should have a doctoral degree, postdoctoral experience, and a record of research productivity. The successful candidate is expected to establish a strong research program in the areas of immunology and microbiology. We are particularly interested in, but not limited to, a research program that characterizes molecular targets for antimicrobial (mycotic, bacterial, parasitic, viral) agents. Competitive salary, space, and start-up funds will be provided. Applicants should send a statement of research goals with a representative reprint, a curriculum vitae, and three letters of recommendation to: **Garry T. Cole, Ph.D., Chairman, Department of Microbiology and Immunology, Medical College of Ohio, Toledo, OH 43699-0008.** Deadline is December 31, 1996. Visit our home page at <http://www.mco.edu:80/micro/index.html>. *Affirmative Action/Equal Opportunity Employer.*

The Department of Biological Sciences of Benedictine University is seeking a broadly trained environmental biologist/ecologist with a strong commitment to undergraduate, liberal arts education. This is a tenure-track position at the **ASSISTANT PROFESSOR** level beginning either spring semester 1997 or fall semester 1997. The successful applicant will be an important part of a new undergraduate environmental science program in which he or she will teach specialty courses in environmental science and introductory biology and will direct undergraduate research. Ph.D. required. Send curriculum vitae (including statement of teaching in a liberal arts environment and research interests), three letters of recommendation, and all transcripts to: **Dr. Al Martin, Department of Biological Sciences, Benedictine University, 5700 College Road, Lisle, IL 60532.** Email amartin@ben.edu. Completed applications will be evaluated as received until the position is filled. *Women and minorities are especially encouraged to apply.*

BIOLOGICAL ANTHROPOLOGIST Emory University, Atlanta, Georgia Department of Anthropology

Emory University announces an **ASSISTANT PROFESSOR**, biological anthropology, tenure-track position beginning fall 1997. Applicants must have Ph.D., strong research record, and commitment to quality teaching, and will be expected to play a pivotal role in a department that encourages dialogue between biological and cultural anthropology. Send curriculum vitae, description of research and teaching interests, and names of three referees to search chair: **Dr. George Armelagos, Emory University, Department of Anthropology, Atlanta, GA 30322.** Applications reviewed beginning November 1, 1996. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

BIOLOGY FACULTY POSITION: Penn State Erie, Behrend College. A tenure-track assistant professor position in organismal biology for fall 1997. Applicants must have a strong commitment to undergraduate education, including teaching animal development, vertebrate anatomy, and introductory biology courses, with research interests in an area of developmental biology. The successful candidate will be expected to develop an externally funded research program involving undergraduates. Ph.D. required; postdoctoral and teaching experience desirable. Behrend is a four-year and graduate college offering the B.S. in biology with the Penn State system. Application deadline is January 10, 1997. Send résumé, transcripts, and brief descriptions of teaching and research interests, and arrange that three letters of reference be sent to: **Dr. Roger Knacke, Division of Science, Department BIOL-S, The Pennsylvania State University at Erie, Erie, PA 16563-0203.** *An Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.*

HUMAN ANATOMY AND PHYSIOLOGY ASSISTANT PROFESSOR TENURE-TRACK POSITION

Southern Oregon State College (SOSC), Ashland, Oregon. For position description, requirements, salary, and other particulars, contact <http://www.sosc.osshe.edu/biology/jobs.htm> or write to: **HAP, Department of Biology, SOSC, Ashland, OR 97520.** Telephone: 541-552-6341. *SOSC is an Affirmative Action/Equal Opportunity Employer committed to development of an inclusive multicultural community.*

SIGNAL TRANSDUCTION POSITION

DNAX Research Institute, located near Stanford University, has an opening for a Staff Scientist in the Department of Cellular Signaling. Candidates should hold either a Ph.D. and/or M.D. degree and have completed postdoctoral training and, preferably, a period as an independent investigator.

The Institute conducts research in a variety of areas of molecular and cellular biology with an emphasis on immunology hemopoiesis and oncology. We invite applicants whose research interests could take advantage of these DNAX-established strengths. We are particularly interested in individuals with expertise in the following areas: Apoptosis, Protein Phosphatases, Cytokine-regulated signaling or Lipid signaling. Applicants with closely related interests may apply.

The Department of Cellular Signaling presently comprises five research groups with a focus on signaling by membrane and cytoplasmic protein kinases, regulation of the cell cycle by cyclin-dependent kinases and regulation of cytokine gene expression. We are looking for a creative individual who can contribute innovative science to this productive research program and who would enjoy strong interactions with colleagues in other DNAX departments, namely Immunology, Human Immunology and Molecular Biology.

The successful candidate will be expected to establish an independent research program in their area of interest and will have the opportunity to conduct basic research in the absence of teaching and grant writing responsibilities. DNAX scientists work in an academically-styled environment complimented by a strong and international postdoctoral program.

Qualified applicants should send a curriculum vitae, the names of three references and a one-page statement of research interest to: Human Resources Department, DNAX Research Institute, 901 California Avenue, Palo Alto, CA 94304-1104. DNAX is an equal opportunity employer, m/f/d/v.

DNAX Research Institute

ALANEX Corporation, a rapidly growing San Diego-based drug discovery company, currently has several openings for talented professionals to join our dynamic team:

MOLECULAR BIOLOGIST

As a team-oriented molecular biologist with some supervisory experience, you will be responsible for establishing a new laboratory. We will rely on you to work closely with pharmacologists and medicinal chemists to find new ways to accelerate the drug discovery process. Responsibilities include the cloning and expression of targets for new and existing projects and the development of new assay systems to determine the activity of novel compounds, particularly via high-throughput screening. You must possess a PhD in Molecular Biology and 2-5 years of post-doctoral training. Experience in cloning receptors, especially G-protein coupled receptors, is required. Some industry experience is preferred.

BIOCHEMIST

We are also seeking a Biochemist to augment our dedicated team. The ideal candidate will be a PhD Biochemist with 1-3 years of relevant experience. You must possess a background in one or more of the following: enzymology/kinetics, signal transduction, protein purification, or assay development.

We offer competitive salaries and an excellent benefits package. If you are interested in discovering challenging opportunities, please send your resume to: ALANEX Corporation, Human Resources, Dept. SCI.10.11, 3550 General Atomics Ct., San Diego, CA 92121-1194, or email us at h_resources@alanex.com. We are proud to be an equal opportunity employer.



EMORY UNIVERSITY

Dean of Emory College and Vice President for Arts and Sciences

Emory University seeks an outstanding scholar and educator to serve as Dean of Emory College and Vice President for Arts and Sciences. The Dean is responsible for the academic and administrative leadership of the College and reports to the Provost; additionally, as Vice President for Arts and Sciences, the Dean is a member of the President's staff, serving as an advocate for the Arts and Sciences within the University and in the wider community.

Emory is committed to continuing its growth as a major research institute with a leading undergraduate college. We seek a candidate with a record of demonstrated achievement in envisioning and realizing innovative educational programs at the highest level of excellence. The successful candidate will be both an accomplished scholar and someone with a clear grasp of the range of problems and opportunities in higher education generally. Ability to manage an academic organization and to work constructively and effectively with colleagues is also essential.

Emory College currently enrolls approximately 4,700 undergraduates, with a faculty of 571 teaching in 25 departments and in the Graduate School of Arts and Sciences. We are actively committed to enhancing our academic stature and are in an excellent position to achieve ambitious goals.

Inquiries, nominations, and applications should be submitted to:

**Robert A. Paul, Charles Howard Candler Professor
Chair, Dean of Emory College Search Committee
404-727-4225**

**c/o Office of the Provost
Emory University
Atlanta, Georgia 30322**

To assist us with this search, the Emory College Dean Search Committee has engaged the services of a consultant, Paula Carabelli, of the firm Wit/Kieffer, Ford, Hadelman & Lloyd, 714-851-5070 (phone), 714-851-2412 (fax), to whom inquiries may also be directed.

Applications should include a current curriculum vitae; the names, positions, and phone numbers of five references who will be contacted only with candidate's approval; and a two-page letter suggesting ideas about opportunities and new directions in liberal arts education and scholarship over the next decade, and describing the candidate's relevant experience. Screening will begin immediately and continue until an appointment is made, preferably in the early Spring of 1997. All communications will be treated confidentially.

EEO/AA Employer

POSTDOCTORAL FELLOWS



THE R.W. JOHNSON
PHARMACEUTICAL RESEARCH INSTITUTE
a Johnson & Johnson company

The R.W. Johnson Pharmaceutical Research Institute (PRI) is an organization within Johnson & Johnson dedicated to discovering and developing new therapeutics. The research program at the PRI LaJolla site is focused primarily on immunology and neurobiology with a heavy emphasis on differential gene expression and bioinformatics. We are currently seeking highly-motivated, first-rate biological scientists to join the postdoctoral program.

This basic research program was designed by the vice president of research, Dr. Per A. Peterson, to complement the ongoing drug target discovery efforts. Postdoctoral scientists are expected to pursue fundamental scientific questions, carry out high quality research and publish their findings in top-rated scientific journals. We offer excellent research facilities, including outstanding biocomputing power with access to private gene databases as well as excellent services for DNA and peptide sequencing and synthesis. The local environment includes many other bio-science institutes and biotechnology companies making this location truly outstanding for the pursuit of science (not to mention the wonderful weather). Fellowships are available in the following areas:

MOLECULAR IMMUNOLOGY

**M.R. Jackson, L. Karlsson,
A. Brunmark and Y. Yang**

Cell biology and biochemistry of antigen processing and presentation by MHC class I and class II molecules.

IMMUNE ESCAPE BY PATHOGENS

K. Frueh

Molecular and cell biological aspects of viral and bacterial immune evasion mechanisms.

MOLECULAR NEUROBIOLOGY

T. Lovenberg and M. G. Erlander

Pharmacological and physiological studies of novel CNS molecules with particular emphasis on the use of differential gene expression technology.

T-CELL ACTIVATION AND DIFFERENTIATION

Z. Cai and W.P. Fung-Leung

Identification and characterization of the molecular requirements for T-cell activation and differentiation and dissection of the downstream signaling events. Generation of transgenic and knockout mice to study immune function.

BIOINFORMATICS

M. Noordewier, J. Wan

Computational analysis of differential gene expression. Development and implementation of query language and software tools for database mining and sequencing analysis.

MEDICAL INFORMATICS

T. Haverty

Evaluation of databases for medical applications of novel genes. MD required.

Further details of the research programs by these investigators are available at
<http://go-explore.com/prilajolla>.

Postdoctoral fellowships are available for a period of two years based on acceptable performance. Starting salary is \$36,500 with benefits and relocation available. If you are interested in applying for a fellowship please indicate area of interest, brief summary of current research and CV to: Human Resources, Attn: L. Krenwinkel, 3535 General Atomics Court, Suite 100, San Diego, CA 92121. Equal opportunity employer.

Johnson & Johnson

SCIENTIFIC MANAGEMENT OPPORTUNITIES IN BIOTECHNOLOGY

Strategic expansion at BioSource International (NASDAQ-BIOI), an international manufacturer and distributor of immunological reagents, test kits and diagnostic products for the medical research marketplace, has created new scientific management opportunities in our product development and marketing departments.

Director of Immunology

We are seeking an experienced science professional with 5+ years of increasing industry management responsibility for the research, product development and production of immunobiological reagents. This candidate must possess a PhD in Immunology or related life science and be a well-published, recognized leader in this field. The ideal candidate will be a strongly self-motivated individual driven to succeed while using business acumen, leadership skills, and teamwork to assist our company in achieving its goals and objectives.

Director of Molecular Biology

As the leader of our Molecular Biology and Protein Chemistry groups, you will guide the company's basic research into novel, biologically active proteins, as well as lead a scientific staff in the production and quality control of our current line of cytokine and cell adhesion molecules and other recombinant DNA-derived proteins. In addition to a PhD in Molecular or Cellular Biology and familiarity with the latest molecular techniques, you must have 5+ years' industry experience with increasing responsibilities in the scientific management of molecular and cell biology products. Strong publication history, leadership skills and excellent references a must.

Director of Marketing

This marketing professional will have a BS/MS in Immunology or related science and at least 4+ years' experience in biotechnology product management and marketing to the biomedical research market. You will be responsible for developing and implementing the company's strategic marketing plan, including market research and related reports. Leading a small but growing support staff, you will direct product support for new and existing products, including advertising, trade show activities, and field sales support materials. Some travel required.

BioSource International, Inc. is a biotechnology company located near the beautiful Central Coast of California. The company offers a competitive salary, excellent medical, dental and life insurance programs, stock option and purchase plans, a 401(k) plan, and a team-oriented working environment. Qualified candidates only should send or fax resumes to: BioSource International, Human Resources Dept., 820 Flynn Road, Camarillo, CA 93012, FAX: (805) 388-8295. EOE.



ALPHA GENE

AlphaGene is a rapidly growing biotechnology company founded by scientists from Harvard Medical School. The Company is developing high quality innovative gene libraries, ultra high-speed DNA sequencing, high-throughput functional screening systems, and advanced bioinformatics and computational biology tools.

AlphaGene is recruiting results-oriented molecular biologists for the following positions:

Scientists/Senior Scientists

Candidates must possess a Ph.D. degree in molecular biology with extensive (3-5 years) experience in cloning, DNA sequencing, and expression of heterologous genes in prokaryotic and eukaryotic cells. Experience in the synthesis of gene libraries, PCR, site-directed mutagenesis, and genetics is highly desirable. Scientific creativity, commitment to organizational goals, communication skills, ability to work as a member of a team, and achievement focus are musts.

This opportunity provides an environment of excellence for both personal and professional growth. AlphaGene offers a competitive salary and benefits package. We are located in the greater Boston area, amidst strong academic institutions and a growing community of biotechnology companies. Qualified candidates are requested to submit, in confidence, a cover letter, their curriculum vitae, and two references to: **AlphaGene Resources, 260 West Cummings Park, Woburn, MA 01801.** AlphaGene is an Equal Opportunity Employer M/F/D/V.



Texas Biotechnology Corporation

Texas Biotechnology Corporation is located in the heart of the Texas Medical Center in Houston, Texas. We are a growing, dynamic biopharmaceutical company engaged in the discovery of novel therapeutics for the cardiovascular market. We offer competitive salaries, benefits package, and a highly stimulating research environment. We currently have vacancies for computational chemists with various levels of experience.

We are seeking Ph.D. scientists with two or more years of industrial or post-doctoral experience in the area of computational chemistry / molecular modeling.

Suitable candidates will have strong experience in one or preferably more of the following areas: • design of novel compounds • database searching • 3D-QSAR • virtual compound libraries • protein homology modeling • protein dynamics simulations. Candidates should have strong fundamental concepts in computational chemistry, some programming experience in addition to familiarity with commercial modeling packages would be an asset. Ability to interact openly in a multidisciplinary environment with medicinal chemists, other members of the modeling group, and biologists are essential skills for successful candidates.

We will consider candidates with more experience than the minimum indicated above for a more senior position in the group. We will also consider candidates with a relevant strong Ph.D. for a postdoctoral position.

Please forward your resume for confidential consideration, including the names and phone numbers of two references, to: **Human Resources Department, Job Reference # (GK-SSB), Texas Biotechnology Corporation, 7000 Fannin, Suite 1920, Houston, TX 77030.**

DIRECTOR AND SENIOR SCIENTIST

Structure Center at the University of
Connecticut School of Medicine

We seek a senior level scientist to direct a developing Structure Center. The successful candidate will have an ongoing research program in macromolecular structural determination, preferably by **x-ray diffraction**, but will also have a broad background and interests in other existing and emerging methods of structural determination. Most importantly, the director is expected to provide leadership in the formation of research programs involving structural biology within the Center and in the School. The appointment will be a **tenure track** position in either the Department of Biochemistry or Microbiology, according to the interests of the candidate. The Structure Center occupies approximately 10,000 square feet of laboratories and offices. It has state-of-the-art instrumentation in the areas of NMR spectroscopy, low-angle x-ray diffraction, high resolution scanning electron microscopy, and molecular computation and modeling. Funds will be available to the director for expanding the instrumentation and for recruiting a second, junior level, structural scientist. The research interests of the faculty at the Health Center are broad and should furnish ample opportunities for joint research and educational ventures. The Health Center has established programs leading to Ph.D. and M.D./Ph.D. degrees. Applicants should submit a curriculum vitae, a summary of research interests, and names of at least 3 references to:

**Chair, Structural Biology Search Committee
Medical Dean's Office
University of Connecticut School of Medicine
263 Farmington Avenue
Farmington, CT 06030-1920
(Search Code 96-260)**

An Affirmative Action/Equal Opportunity Employer. M/F/PwD/V

ANNOUNCEMENT

Glycoscience Research Award:

Neose Technologies

Neose Technologies, Inc. announces a funding program to foster innovative research into functions and biosynthesis of complex carbohydrates. Two grant awards, each not to exceed \$75,000 per year in direct costs, will be made annually to applicants who are full-time, tenure-track staff members at academic or other non-profit institutions. Preference will be shown to applicants who have had less than six years of federal research support. Grants will be awarded without restrictions. The only requirement asked of each awardee is the favor of a research progress seminar at Neose. Completed applications must be received by January 1, 1997. Send requests for application information via email to **neose@aol.com** or via regular mail to: **GRANT Program, Neose Technologies, Inc., 102 Witmer Road, Horsham, PA 19044, USA.**

Howard Hughes Medical Institute

Postdoctoral Research Fellowships for Physicians

1997 Competition

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

Fellowship Terms

- Three years of support
- Full-time fundamental research
- \$40,000–\$60,000 annual stipend, effective September 1997
- \$16,000 annual research allowance
- \$13,000 annual institutional allowance

Eligibility

- M.D., M.D./Ph.D., M.B.B.S., or D.O., with the first medical degree awarded no earlier than 1987
- At the start of the fellowship
 - at least two years of postgraduate clinical training completed
 - no more than two years of postdoctoral research training completed
- Applicants (and fellows) may not have faculty appointments
- Fellows may not be enrolled in graduate degree programs
- No citizenship requirements for application; U.S. citizens may study abroad, but others must study in the United States

Schedule

- Application deadline: December 16, 1996
- Awards announced: July 1997
- Fellowships start: September 1, 1997–September 1, 1998

1997 Program Announcements and Applications

Howard Hughes Medical Institute
Office of Grants and Special Programs
Department CC97
4000 Jones Bridge Road
Chevy Chase, MD 20815-6789, United States of America
Telephone (301)215-8889
Fax (301) 215-8888
E-mail <fellows@hq.hhmi.org>
<http://www.hhmi.org/grants/graduate/start.htm>

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

**BATES COLLEGE
LEWISTON, MAINE**

ASSISTANT PROFESSOR — ENVIRONMENTAL TOXICOLOGY

The Department of Biology at Bates College, a selective liberal arts college of 1600 students, has a **tenure track Assistant Professor** position open for an **environmental toxicologist** beginning in September of 1997.

Our toxicologist will become the ninth full-time faculty member in biology and have responsibilities for participating in the department's core curriculum and for teaching introductory environmental toxicology and additional courses in her/his area of expertise. In addition, she or he will be expected to conduct an active research program involving Bates undergraduates. Candidates whose approach to environmental toxicology includes competence in epidemiology/public health and embryology/teratology will be given preference. The department encourages applications from candidates whose research interests involve the health effects of environmental toxins at the tissue or single organism level of biological organization. A Ph.D. is required and postdoctoral research training is desirable.

Bates College is located in southern Maine, 2.5 hours from Boston, in the city of Lewiston, known for its Franco-American cultural influence and proximity to scenic mountains and beautiful coastline. Since its founding in 1855, the college has been coeducational and has enrolled students of religious, ethnic, and racial minorities. It has maintained a tradition of inclusiveness in college social activities without sororities or fraternities. The institution has an accomplished faculty from a wide range of disciplines teaching bright and enthusiastic students. In the last decade, five new interdisciplinary programs have been instituted at Bates. The college views research as a method of teaching and financially supports student/faculty research collaboration. Additional institutional information is available on line at <http://www.bates.edu>.

Applicants should provide a cover letter indicating teaching philosophy and experience, research interests, curriculum vitae, and three letters of recommendation by November 12, 1996 to the:

**Toxicology Search Committee
Department of Biology
c/o Secretarial Services
Bates College
7 Lane Hall
2 Andrews Road
Lewiston, ME 04240**



Bates College values a diverse college community and seeks to ensure equal opportunity through a continuing and effective Affirmative Action Program.

CHAIR

**Department of Biomedical Sciences
University of South Alabama**

Applications are invited for the position of Chairperson of Biomedical Sciences. Biomedical Sciences is an undergraduate Department whose unique mission is to provide a strong undergraduate basic medical sciences degree program for premedical and pre-Ph.D. students. The program also provides service teaching for other health professions students.

Successful applicants will have an earned doctorate in either physiology or pharmacology and must (1) have a distinguished record in teaching and in research; (2) have proven leadership capability and administrative skills; (3) have strong interpersonal skills including the ability to communicate effectively with internal and external constituencies; and (4) have a strong commitment to undergraduate education in basic medical sciences.

Application deadline: November 15, 1996.

Send letter, c.v., and 3 letters of reference to: **Dr. Daniel E. Sellers, Associate Dean, College of Allied Health Professions, 1500 University Commons, University of South Alabama, Mobile, AL 36688.**

The University of South Alabama is an EEOC Affirmative Action Employer. M/F/D.

**FACULTY POSITION IN
VERTEBRATE GENETICS
The Department of Physiology
UCSF**

Applications are invited for a faculty position in vertebrate genetics and its application in mammalian physiology and disease. Preference will be given to candidates at Assistant Professor (tenure track) level, although all levels will be considered. Ideal candidates will use genetics to investigate physiological questions at the level of cells, organs, or systems. The successful candidate will play a role in the Biomedical Sciences Graduate Program and may also participate in a new Human Genetics Program, the PIBS Graduate Program in Genetics, and/or a new UCSF Cancer Center. Significant research accomplishments, ability to maintain a rigorous research program, and commitment to excellence in education are required.

Please submit a letter of interest with curriculum vitae, summary of current and proposed research work, and key publications or preprints, and arrange to have at least 3 letters of recommendation sent to:

**Vertebrate Geneticist Search, Attn.:
D. Blumer, Dept. of Physiology, Box
0444, 513 Parnassus Avenue, Rm.
S-762, University of California, San
Francisco, CA 94143-0444.**

All materials should arrive by December 15, 1996 to ensure full consideration. *UCSF is an Equal Opportunity/Affirmative Action Employer.*

Assistant Professors, Biology

The University of Portland invites applications for two tenure track assistant professor appointments in biology to begin Fall 1997. We seek a molecular geneticist and vertebrate biologist who are committed to combining teaching and research activities. The University of Portland is a Catholic comprehensive university of 2000 undergraduate students, with a reputation for quality teaching. A Ph.D. is required; applicants must possess a strong commitment to teaching and are expected to develop a research program that fosters undergraduate research activities. The Biology Department teaches courses for the School of Nursing and non-science majors as well as for its 200 majors. Teaching responsibilities for the molecular geneticist include an upper division molecular genetics course and a health related microbiology course. We seek a vertebrate biologist with a specialty in non-human vertebrates and interests in teaching general vertebrate courses such as evolution, ecology, and animal behavior or physiology. Send a letter of application stating the position of interest, a curriculum vitae, evidence of teaching effectiveness, description of research program, copies of transcripts (undergraduate and graduate), and 3 letters of recommendation to: **Chair, Biology Search Committee, University of Portland, 5000 N. Willamette Blvd., Portland, OR 97203-5798.** Closing date: December 13, 1996. *The University of Portland is an Affirmative Action/Equal Opportunity Employer.*

The Department of Microbiology and Molecular Genetics and the Department of Medicine at the University of California, Irvine are jointly seeking applicants for a faculty position at the Assistant or Associate Professor level, depending upon qualifications. As part of our ongoing effort to expand our program in molecular pathogenesis, we are soliciting applications from individuals who have demonstrated superior talent and productivity in the area of molecular mechanisms of microbial pathogenesis. His/her previous work should have been judged by peer review to have been scientifically rigorous and medically relevant, and he/she should have been successful in obtaining sufficient funds from peer-reviewed grants to support these efforts. The latter can include postdoctoral fellowship support for Assistant Professor candidates.

Candidates must have an M.D./Ph.D. or M.D., and board certification in internal medicine and board eligibility in infectious diseases are required. The successful candidate will have some teaching and clinical responsibilities but will have considerable time available for accomplishing research goals and participating in research-related activities.

Please send curriculum vitae, summary of research interests, and names of three references to:

**Dr. Alan G. Barbour
Search Committee Chair
Department of Microbiology and
Molecular Genetics
College of Medicine
University of California
Irvine, CA 92697-4025**

The University of California at Irvine is an equal opportunity/affirmative action employer.

Women and minorities are encouraged to apply.

NIH Has A New Address.

The National Institutes of Health has introduced a new web site. Now, the latest news about clinical and research training opportunities at NIH can be accessed by visiting us at <http://helix.nih.gov:8001/oe/>

At the site, you can quickly obtain information regarding clinical and postdoctoral training. Review the NIH tenure-track openings. Take a look at the NIH Postdoctoral Research Fellowship Opportunities Catalog which chronicles research being conducted in all NIH laboratories. You can even apply electronically for positions.

All from the convenience of your keyboard.

Plus, the web site links to all NIH institute and laboratory home pages, provides a calendar of events, and offers links to many other areas.

We used to ask you to call us or send your *curriculum vitae*. Now, the best way to find out about world class opportunities at NIH is through the world wide web.



National Institutes Of Health

Office Of Education

<http://helix.nih.gov:8001/oe/>

The NIH is an Equal Opportunity Employer

MEETINGS

Society for Integrative and Comparative Biology



**Albuquerque,
New Mexico 1996**

Society for Integrative and Comparative Biology

(formerly the American Society of Zoologists)

With the American Microscopical Society,
Animal Behavior Society
and The Crustacean Society

1996 Annual Meeting

**December 26-30, 1996
Albuquerque Convention Center
Albuquerque, N.M.**

Don't Miss These Exciting Symposia!

Animal Behavior: Integration of Proximate and Ultimate Causation

Major historic approaches to behavior concern proximate (how) and ultimate (why) questions.

Responses of Terrestrial Invertebrates to Variation in Temperature and Water Availability: Molecular, Organismal and Evolutionary Approaches

Explore how terrestrial invertebrates cope with thermal and hydric stresses.

Evolution of Development: Patterns and Process

This symposium examines development in generating biological diversity.

Developmental Endocrinology of Non-Mammalian Vertebrates

Hormonal control of embryonic and larval development is featured, as well as amphibian metamorphosis and sex determination.

A Tribute to Stephen A. Wainwright: Mechanical Design in Organisms

This series of contributed paper sessions feature short talks by people who have been influenced by Wainwright.

Muscle Properties and Organismal Function: Shifting Paradigms

The emerging paradigm in muscle function will be explored from a comparative perspective.

The Biology of Lipids: Integration of Structure and Function

Lipids as structural components of cells and organisms, lipid metabolism and transport, and lipids in regulating biological processes.

For more information contact:

Society for Integrative and Comparative Biology
401 North Michigan Avenue • Chicago, IL 60611-4267
312/527-6697 • 800/955-1236 • Fax 312/245-1085

e-mail: SICB@sba.com • <http://SICB.berkeley.edu/SICB/SICB.html>

Medicine At The Core Of Life

Few biotechnology companies can offer you the promise and excitement of Gilead Sciences. We are a leader in the discovery and development of a new class of broad spectrum antiviral therapeutics that will provide powerful new treatments for CMV retinitis, HIV and other viruses. Here, you'll be a part of a company that takes pride in its achievements, knowing that patients may benefit from the products we create.

TOXICOLOGIST

Working effectively with CROs and Gilead Scientists, you will support internal and external pre-clinical toxicology development programs. Responsibilities will include monitoring/coordinating externally-contracted GLP and non-GLP studies as well as acting as study director for non-GLP toxicology/research studies conducted in the Gilead Sciences vivarium. This opportunity requires a Ph.D. in Toxicology or a related field, hands-on experience in the design, conduct and interpretation of animal toxicology studies, and good computer and written/verbal communication skills. A minimum of 2 years' experience as a study director in a GLP-compliant facility is desired; A.B.T. certification would be a plus.

At Gilead, we are committed to developing important treatments for a wide range of viral diseases, including AIDS. As you will discover, we are as committed to opportunity as we are to scientific achievement. To learn more, please send or fax your C.V./resume to: Human Resources, Gilead Sciences, Inc., 353 Lakeside Drive, Foster City, CA 94404, fax (415) 573-4800. We are proud to be an equal opportunity employer.

GILEAD
SCIENCES

AMERICAN SOCIETY FOR MICROBIOLOGY AND NATIONAL CENTER FOR INFECTIOUS DISEASES 1997 POSTDOCTORAL RESEARCH ASSOCIATES PROGRAM

Up to eight associate positions will be awarded by the American Society for Microbiology for full-time research on infectious diseases which cause significant public health problems. Associates will perform research in residence at the National Center for Infectious Diseases (NCID) which is headquartered at the Centers for Disease Control and Prevention (CDC) in Atlanta, GA. In addition to Atlanta, NCID operates laboratories in Ft. Collins, CO, Anchorage, AK, and San Juan, Puerto Rico.

Eligible fields of study include:

Bacterial and Mycotic Diseases
Viral and Rickettsial Infections
Nosocomial Infections
HIV/AIDS
Vector-borne Infectious Diseases
Sexually Transmitted Diseases
Parasitic Diseases

The associate positions are limited to individuals who either earned their doctorate degree (Ph.D., Sc.D., M.D., D.V.M., or D.D.S.) or have completed a primary residency after May 1994. Exceptions may be made for those with more experience. All qualified applicants are eligible to apply. While citizens of other countries who have a full command of the English language will be considered, preference will be given to qualified U.S. citizens and permanent residents. Qualified applicants will receive consideration without regard to race, creed, color, age, sex, or national origin. Diversity among associates is encouraged. The program provides an annual stipend of \$30,000 with a medical benefits package and up to \$4,000 for professional development.

The application deadline is December 1, 1996. The Postdoctoral Research Program is administered by the American Society for Microbiology. All inquiries regarding this program should be addressed to: ASM/NCID Postdoctoral Research Program, American Society for Microbiology, 1325 Massachusetts Avenue, N.W., Washington, D.C. 20005; Fax: (202) 942-9329; E-mail: TrainingInformation@asmusa.org. The Booklet and Application is available on ASM's home page at <http://www.asmusa.org/educr/edu23c.htm>.

ASM
AMERICAN SOCIETY FOR MICROBIOLOGY

CDC/NCID
CENTERS FOR DISEASE CONTROL AND
PREVENTION/NATIONAL CENTER FOR
INFECTIOUS DISEASES



BIOCHEMISTRY AND MOLECULAR BIOLOGY Tenure Track Faculty Position in Structural Biology

As part of an ongoing expansion, the Department of Biochemistry and Molecular Biology invites applications for a faculty position in the area of structural biology. Although emphasis will be on a junior faculty position, we will consider superior applicants at all levels. We seek an individual with training and research interests bearing on macromolecular structure. The successful applicant will be expected to develop an independent research program utilizing biochemical, biophysical, and molecular biological techniques to address a significant biological problem at the structural level. Generous start-up packages and laboratory space are available to initiate the research program.

Applicants should have a doctoral degree and relevant postdoctoral experience. Demonstrated excellence in research and clear indications of an ability to initiate a strong research program are essential. Candidates should also be able to function effectively as lecturers and in more informal teaching situations at all levels. Interested individuals should send a complete curriculum vitae, at least three letters of recommendation, a brief description of previous research experience and future research plans, and reprints of most significant work to: **Dr. Murray Deutscher, Faculty Search, University of Miami School of Medicine, P.O. Box 016129, Miami, FL 33101-6129.**

Review will begin immediately and continue until the position is filled.

The University of Miami is an affirmative action/equal opportunity employer.

MEHARRY MEDICAL COLLEGE SCHOOL OF MEDICINE

Research Centers in Minority Institutions (RCMI) and the Department of Biochemistry

Faculty positions are available in 1996/97 at the Assistant Professor, Associate Professor or Professor levels in the area of cell signaling which has been targeted for expansion at the College. Initial funding for these positions is provided by an NIH-funded RCMI program at the College and support from the School of Medicine.

Recruitment of four individuals is expected, in an effort to develop a critical mass of investigators studying cell signaling at the institution. **We are seeking scientists who merit primary appointment in the department of biochemistry.** Joint appointments in clinical or other basic sciences departments are expected. Preference will be given to applicants who have an interest that complements one of our clinical science departments. Selected individuals must have potential or demonstrated competence in the use of molecular biological or biophysical approaches to conducting research in cellular signaling and must also be capable of, and committed to making significant contributions to the teaching and administrative functions of the appointing department(s). Successful applicants will be expected to develop/maintain a funded research program of high quality and to substantially participate in the graduate and professional (medical, dental, and applied health) school teaching programs of the department of biochemistry or other appointing department(s). They will also be required to participate in the further development of molecular neuroscience at the College. Applicants should send curriculum vitae, a statement on teaching interests, names of four individuals who may be contacted for reference, and a summary (not exceeding four pages) of potential research project(s) to either: **Fred Jones, Ph.D., RCMI Program Director, and Vice President for Research, or John E. Arradondo, M.D., M.P.H., Dean, School of Medicine, (both at) Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208.** Applications will be evaluated by the search committee appropriate for the targeted area of cell signaling as well as by the appointing department(s). *Meharry Medical College is an Equal Opportunity/Affirmative Action Employer.*

Public Health Service
National Institutes of Health
Baltimore, Maryland

CHIEF

LABORATORY OF GENETICS NATIONAL INSTITUTE ON AGING

THE POSITION: National Institute on Aging (NIA), one of the world's largest and most comprehensive institutions in aging research, is initiating a new intramural laboratory to study genetics and aging and invites applicants for a tenured position as the chief of the laboratory. The qualified candidate must have an M.D. and/or Ph.D. and have experience in the study of genetics. This senior scientist will independently initiate a creative research program on identifying genes affecting the biology of cells in the aging process. The NIA continues to focus on aging as an intrinsic biological feature of cells and evaluates the role in aging of possessors such as telomere length maintenance, mitochondrial DNA damage, accumulation of somatic mutations, and alterations in DNA repair mechanisms. In addition, the study of aging based upon novel approaches such as genomics is to be encouraged in this new research program. Interactions with the nascent Center for Inherited Disease Research of the National Center for Human Genome Research may be developed. The applicant should have a track-record of independent peer-reviewed research in the study of genetics and should possess qualifications that demonstrate competence in management and leadership ability. The NIA's intramural program on genetics is located on the campus of the Johns Hopkins Bayview Medical Center in Baltimore, Maryland.

HOW TO APPLY: Applicants should send curriculum vitae, bibliography, names, address and telephone numbers of three references and a 1000-word overview of a proposed program for the laboratory to:

**NATIONAL INSTITUTE ON AGING,
GERONTOLOGY RESEARCH CENTER
ATTN: KAREN MABEN
PERSONNEL OFFICE, BOX 26
4940 EASTERN AVENUE
BALTIMORE, MARYLAND 21224-2735**

**Applications must be postmarked
by October 25, 1996.**

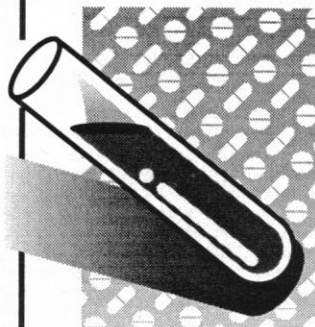
Selection for this position will be based solely on merit, with no discrimination for non merit reasons such as race, color, religion, sex, national origin, politics, marital status, physical or mental disability, age, sexual orientation, or membership or non-membership in an employee organization. NIH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

NOTICE:

This is a REVISED posting of ad
originally in Science issue 9/06/96

Research & Development

Insight scientific discovery



Glaxo Wellcome, the world's largest pharmaceutical company, continues to reinforce its commitment to pioneering research and development efforts that respond to the existing and emerging needs of the global community. To explore new challenges in healthcare research, bring your expertise to our team in one of the following openings at our Corporate Headquarters located in Research Triangle Park, N.C.

SR. SCIENTIST/ RESEARCH INVESTIGATOR

As a key member of our BioMet Research Department, you will provide direction and support to our team, establish procedures for absorption/transport studies, *in vitro* drug metabolism studies, high-throughput screening and analysis, and assist in interpreting data from these studies.

Requires a BS degree with a minimum of 5 years relevant experience; or an MS degree with a minimum of 3 years relevant experience; or a Ph.D. with relevant experience in pharmacology or a related discipline. Candidate must have skills related to bioanalysis and drug metabolism which include specialization with membrane transport systems (i.e. Caco-2 cell culture), *in vitro* drug metabolism systems and enzymology. Candidate must be independent, highly motivated, an innovative thinker, possess good communication skills and a demonstrated ability to work well with others in a team setting. Refer to Job # ASC2129-1 on all resumes.

SR. SCIENTIST/ RESEARCH INVESTIGATOR

As a key member of our Oligomer Development Department, this individual will develop targeted carriers for intracellular delivery of antisense oligonucleotides. Other duties will include: synthesizing peptides and oligonucleotides and their covalent conjugates with polymers, lipids, membrane fusogens and targeting ligands; characterizing oligomers and derivatives by physical chemical techniques and bioassays; evaluating cellular uptake, intracellular localization and specific inhibition of target mRNA and protein expression; and developing stable formulations for systemic administration to support preclinical studies in *in vivo* disease models. As an active project team participant, this individual will expedite the timely development and registration of biotechnology products as human therapeutics.

This position requires a BS/BA in Chemistry or Biochemistry with a minimum of 5 years relevant experience, or a Master's with 3 years experience; or a Ph.D. with relevant laboratory experience. Experience/working knowledge of solid-phase peptide and oligonucleotide synthesis, synthesis and characterization of covalent conjugates, formulation/delivery of oligo- or polynucleotides, and liposome formulations are preferred. Candidate must have excellent communication and interpersonal skills and the ability to work independently and as part of a team. Refer to Job # ASC2017-2 on all resumes.

Our leadership is reflected in excellent salaries and a comprehensive benefits package. For confidential consideration, send your resume, which must include position title/job number and salary history, to: **Human Resources Department, Glaxo Wellcome, P.O. Box 13398, Research Triangle Park, NC 27709.** (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/D/V.

GlaxoWellcome

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POSITIONS OPEN

HARVARD MEDICAL SCHOOL DEPARTMENT OF PATHOLOGY



PROFESSOR OF IMMUNOPATHOLOGY

The Department of Pathology at Harvard Medical School is seeking to fill the Edward Mallinckrodt, Jr. Professor of Immunopathology. Candidates should be dynamic scientific leaders in immunology as demonstrated by their scientific accomplishments and international reputation. The successful candidate is expected to participate in the training of graduate students enrolled in the Committee on Immunology, the Program in Biological and Biomedical Sciences, and the medical student teaching programs of the Department of Pathology. The candidate is expected to direct a vigorous research program in immunology; recently constructed laboratory space is available on the Quadrangle within the Department of Pathology at Harvard Medical School.

Candidates should send a curriculum vitae and statement of research interests to: **Mallinckrodt Search Committee, c/o Dr. Peter M. Howley, Harvard Medical School, 200 Longwood Avenue, Building D2, Room 629, Boston, MA 02115.** Harvard Medical School is an Affirmative Action/Equal Opportunity Employer. Qualified female and minority applicants are encouraged to apply.

ANIMAL PHYSIOLOGIST

The Department of Biology, Santa Clara University, invites applications for a tenure-track **ASSISTANT PROFESSOR** position beginning September 1, 1997 for an animal physiologist working at the animal, cellular, or molecular level. Qualifications include a Ph.D. and at least two years of postdoctoral experience. Previous teaching experience preferred. Responsibilities include teaching physiology at the lower- and upper-division levels and an upper-division laboratory course in the candidate's area of expertise. The successful candidate will also be required to develop a strong research program that includes undergraduate participation.

The Department of Biology is within the undergraduate College of Arts and Sciences at Santa Clara University. The University stresses a strong liberal arts curriculum and seeks to create a learning environment that encourages rigorous inquiry and creative imagination. Excellence in both teaching and research is emphasized.

Applicants should submit 1) curriculum vitae, 2) three letters of recommendation, and 3) a concise statement of future teaching and research plans by November 15, 1996 to: **Chair, Search Committee, Department of Biology, Santa Clara University, Santa Clara, CA 95053.** Santa Clara University, a Jesuit Institution, is an Equal Opportunity/Affirmative Action Employer and welcomes applications from women and persons of color.

Department of Chemistry and Biochemistry, University of Maryland at College Park (UMCP), invites applications for **TENURE-TRACK** or tenured positions in Biochemistry. Candidates at all levels (Assistant, Associate, or Full Professor) with an interest in developing chemical and biochemical approaches to research problems in biology are encouraged to apply. Successful candidates may also participate in the campus-wide graduate Program in Molecular and Cell Biology. Submit a curriculum vitae and short description of research plans, and arrange for three letters of reference to be sent to: **Biochemistry Search Committee, Department of Chemistry and Biochemistry, University of Maryland, College Park, MD 20742-2021.** Applications should be received by November 15, 1996 for best consideration. UMCP encourages applications from women and members of minority groups and is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION

Behavioral Neuroscience/Neuropsychology

Applications are invited for a tenure-track position at the **ASSISTANT PROFESSOR** level, pending state funding. The specific area of specialization is open and includes research in animals and/or humans. Preference will be given to candidates who have a record of nationally recognized research. Application deadline is December 1, 1996. Send curriculum vitae, three references, and reprints/preprints to: **Guy Mittleman, Chair, Faculty Search Committee, Department of Psychology, The University of Memphis, Memphis, TN 38152.** Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN



Wayne State University

FACULTY POSITION WAYNE STATE UNIVERSITY

Chemical Engineering or Materials Engineering

Wayne State University, Department of Chemical Engineering and Materials Science, invites applications for a **FACULTY POSITION**. This position is associated with the Center for Automotive Processing Control and Reliability (CAMP CAR). CAMP CAR is a nucleus for cross-disciplinary research between Wayne State University engineering/science faculty and industrial partners in automotive manufacturing and supplier companies, with emphasis on developing state-of-the-art automotive materials analysis capabilities. Rank, tenure status, and salary commensurate with credentials. Qualifications include Ph.D. in chemical engineering or materials science and engineering and a commitment to undergraduate and graduate teaching. Candidates for a tenured full professor position should be accomplished researchers with an outstanding record of research funding and scholarly publications. Applicants for a junior faculty position should have potential for developing an externally funded research program that would lead to national recognition. All research areas will be considered, but preference will be given to candidates working in areas that relate to automotive materials analysis. Substantial funding will be available for start-up. Preferred starting date is September 1997. Please send a résumé, a statement of research plans, and names of three references to:

**Professor Esin Gulari
Chair, Chemical Engineering and Materials Science
Wayne State University
Detroit, MI 48202
Telephone: 313-577-3767
Email: egulari@chem1.eng.wayne.edu**

The deadline for receipt of applications is December 23, 1996. Wayne State University is an Equal Opportunity/Affirmative Action Employer.

ASSOCIATE PROFESSOR of Biological Chemistry at Finch UHS/Chicago Medical School. Tenure-track appointment in the area of protein structure/function including mechanistic, spectroscopic, or other physical biochemical approaches on receptors, growth factors, binding proteins, etc. Candidates must have an established, independent research program. Excellent research environment and modern facilities are located in a pleasant North Shore suburb. Send curriculum vitae, names of references, description of research, and statement of current funding to: **Dr. K. E. Neet, Chairman, Department of Biological Chemistry, Finch UHS/Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064.** An Equal Opportunity/Affirmative Action Employer.

ANIMAL PHYSIOLOGIST POSITION

The Department of Biology at Davidson College invites applications for a tenure-track **ASSISTANT PROFESSOR** position in animal physiology. Teaching responsibilities include comparative animal physiology and introductory biology. Research program involving undergraduates expected. Start-up funds available. Appointment begins August 1, 1997. Interested persons should send their curriculum vitae, teaching and research statements, selected reprints, and three letters of reference to: **Dr. Verna Miller Case, Department of Biology, Davidson College, P.O. Box 1719, Davidson, NC 28036** by December 1, 1996. <http://www.davidson.edu/academic/biology/job.html>. Equal Opportunity Employer; women and minorities encouraged to apply.

BIOLOGY POSITIONS

The Point Loma Nazarene College (PLNC) Biology Department seeks two **FACULTY** members to start in August 1997: an ecologist and a second in some area of physiology, cell biology, or neurobiology. Candidates must have a strong commitment to excellence in teaching and research. PLNC is a Christian liberal arts college in the evangelical, Wesleyan tradition. Send a letter of application, curriculum vitae, and a statement of personal faith regarding your commitment to teaching at a Christian college to: **Dr. David Strawn, Dean of Liberal Arts, Point Loma Nazarene College, 3900 Lomaland Drive, San Diego, CA 92106.** Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FACULTY POSITION HUMAN/MAMMALIAN GENETICS

As part of a continued expansion in human and mammalian genetics, the Laboratory of Genetics, University of Wisconsin-Madison (<http://www.wisc.edu/genetics/>), seeks to hire an **ASSISTANT PROFESSOR**. Candidates should possess an M.D. and/or Ph.D. degree and direct an active research program in human or mammalian genetics. Joint appointments with appropriate clinical departments are possible for M.D. applicants.

Please send curriculum vitae, a statement of research interests, and representative reprints or preprints, and arrange to have three letters of recommendation sent to: **Human Genetics Search Committee, c/o Dr. William Dove, 118 Genetics, 445 Henry Mall, Madison, WI 53706.** Application deadline is November 30, 1996.

The University of Wisconsin-Madison is an Affirmative Action Employer. Women and minority scientists are encouraged to apply. Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality.

MICROBIOLOGIST

The Department of Biology at the University of Northern Iowa invites applications for a tenure-track **ASSISTANT PROFESSOR** position effective August 1997. The individual will teach microbiology and virology, share in the teaching of general education courses, and develop a research program in virology or another area of microbiology that uses modern molecular techniques. The Department expects effectiveness in both teaching and research. The applicant's research program should invite participation by Master's and undergraduate students. Ph.D. in a biological science is required. Teaching and postdoctoral research experience are desired.

Applications must be received by January 10, 1997 to be given full consideration. Please submit a curriculum vitae, transcripts, and a statement of interests and goals in both teaching and research, and have three letters of reference sent to:

**Dr. James Jurgenson
Chair, Search Committee
Department of Biology
University of Northern Iowa
Cedar Falls, IA 50614-0421
FAX: 319-273-7125**

The University of Northern Iowa is an inclusive academic community, hospitable to all. It is an Equal Opportunity Educator and Employer with a comprehensive plan for Affirmative Action. The Department encourages applications from minority persons, women, Vietnam era veterans, and disabled persons.

ECOLOGIST AND DEVELOPMENTAL BIOLOGIST

Two **TENURE-TRACK ASSISTANT** or **ASSOCIATE** positions to begin September 1997. 1) Ecologist: including teaching in evolution and systematics; field experience; marine biology background advantageous. 2) Developmental biologist: including teaching capabilities in comparative anatomy and embryology. Research start-up funds available for both positions. Small liberal arts college with broad range of undergraduate courses and specialized courses through M.S. level. 300-acre campus on North Shore of Long Island presents a rural setting within an hour of Manhattan. Please send curriculum vitae, supporting material, and names of at least three references to: **Search Committee, Department of Biology, Long Island University, C. W. Post Campus, Brookville, NY 11548.** Application review cycle will begin December 15, 1996. Equal Opportunity Employer.

FACULTY POSITION IN GASTROENTEROLOGY

The Department of Medicine in Michigan State University's College of Human Medicine is seeking a qualified full-time **ASSISTANT/ASSOCIATE PROFESSOR**, Board-certified/eligible in Gastroenterology, as fourth member of Gastrointestinal (GI) Section. Responsibilities include teaching students, residents, and GI fellows, as well as patient care and scholarly activity. Many opportunities for research, including collaboration in liver toxicology and clinical epidemiology. Applications due November 15, 1996. Position available July 1, 1997, or before. Address inquiries with a copy of curriculum vitae to: **Joel Kupersmith, M.D., Professor and Chairperson, Department of Medicine, B-338 Clinical Center, Michigan State University, East Lansing, MI 48824-1315.** Please refer to position HM001. Michigan State University is an Affirmative Action/Equal Opportunity Institution.

BIOPHYSICAL FACULTY POSITIONS

The University of Texas Medical Branch
Galveston, Texas

In continuing development of Structural Biology at the University of Texas Medical Branch, we are pleased to announce two tenure-track faculty openings at the Assistant Professor level.

NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY

We seek candidates with strong backgrounds in NMR spectroscopy who make extensive use of NMR to solve important biological problems. Successful candidates are to establish independent research program that may involve determinations of macromolecular structures and/or innovative application of NMR spectroscopy in the study of biological macromolecules. The NMR facility at UTMB consists of new 400, 600 and 750 MHz Varian Spectrometers housed in a newly renovated building.

BIOPHYSICAL CHEMISTRY

Candidates with strong backgrounds and expertise in biophysical chemistry are sought. The successful candidate must establish an independent research program to investigate an important biological problem that involves macromolecular interactions. Center facilities include analytical ultracentrifugation, electrospray mass spectrometry and dynamic light scattering apparatus.

Candidates for both positions must have outstanding potential in research with a record and stature in their field of expertise. They are expected to attract funding from national agencies and to fully participate in teaching and service with the Department of Human Biological Chemistry and Genetics. Affiliations with The Sealy Center for Structural Biology, other UTMB Centers and relevant Departments are possible.

Structural Biology currently consists of 10 biophysical faculty members in areas of NMR spectroscopy, x-ray crystallography, computational biology, and biophysical chemistry. Facilities in areas of NMR spectroscopy, computation, x-ray crystallography, and biophysical chemistry are directed by Drs. David Gorenstein, Werner Braun, Robert O. Fox and James Lee, respectively. Structural Biology received financial support from UTMB and endowed support from the Sealy Center for Structural Biology. Facilities consist of a newly renovated building and additional laboratories, along with excellent computational, NMR, crystallographic, and biophysical equipment.

Applications should include a complete curriculum vitae, a description of research interests and names and addresses of at least three references. Review of applications will begin October 15 and continue until the positions are filled. Applications should be addressed to:

Dr. James C. Lee
Structural Biology Search Committee
Department of Human Biological Chemistry and Genetics
and
The Sealy Center for Structural Biology
University of Texas Medical Branch
Galveston, Texas 77555-1055



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NRC-CNRC

NRC is a dynamic, nationwide R&D organization committed to helping Canada realize its potential as an innovative and competitive nation. Combining our strengths – outstanding people, core science expertise and information, research programs focused on key technologies and technology diffusion – with those of industrial and academic partners, we foster Canada's emerging national system of innovation.

You can make a difference at NRC!

Research Officer Plant Biotechnology Institute (PBI) Saskatoon, Saskatchewan

Your Challenge

You will carry out independent research within an integrated cereal biotechnology group to develop genetic transformation methodologies to produce wheat and barley transgenics with improved agronomic performances and/or value-added traits. You will also oversee the development of novel technologies to enhance the group's transgenic wheat and barley capability. In addition, you will participate in project planning and reporting, create research and development interactions with outside collaborators including industry, and manage financial, human and physical resources associated with a research laboratory.

Your Credentials

You must have a Ph.D. in a specialization related to plant biotechnology. The position requires knowledge of the principles and methodologies of genetics, physiology, biochemistry and molecular biology of plants, as well as good understanding of *in vitro* plant culture and the production and assessment of transgenic plants. Knowledge of biotechnology in relation to crop improvement is also needed. The ideal candidate will have research expertise in (i) *in vitro* regeneration and genetic transformation of crop plants; (ii) analysis and inheritance of transgenes in transgenics; (iii) isolation and characterization of genes from plants; and (iv) construction of gene expression vectors to insert genes of interest in to target crop species. Experience in cereal biotechnology research will be an added advantage. The position also requires very good interpersonal skills, excellent skill in written and oral communication and ability to work effectively in a group environment. Knowledge of English is essential.

Salary range. Commensurate with qualifications. Relocation costs may be negotiable.

An enhanced reliability check will be conducted.

To explore this opportunity, send your application by November 15, 1996, **indicating reference number PB-96-035C**, to: **Recruitment and Staffing Group, National Research Council Canada, Montreal Road, Building M-58, Ottawa, Ontario K1A 0R6.**

NRC is an equal opportunity employer.

Vous pouvez obtenir ces renseignements en français.



National Research Council Canada
Conseil national de recherches Canada

Canada

POSITIONS OPEN



PLANT SYSTEMATIST

Hope College seeks a broadly trained botanist for a tenure-track position at the **ASSISTANT PROFESSOR** level. The successful candidate will develop a vigorous research program with active participation by undergraduate students. While the particular research area is open, we seek someone who uses modern systematics techniques to address evolutionary or ecological questions of fundamental significance. She or he will teach a course in vascular plant systematics, an introductory course at the organismal or population level, and an additional course in his or her area of expertise.

Hope College is a distinguished liberal arts college with an enrollment of 2,800 and a faculty of more than 180. The college maintains a strong tradition of "teaching through research" in the sciences. The Department of Biology has thirteen full-time and three part-time faculty, and is well-equipped to maintain its commitment to a broad program in biology. Hope College is affiliated with the Reformed Church in America.

Qualified applicants should arrange to have a curriculum vitae, transcripts, statements of research interests and teaching philosophy/competencies, and three letters of recommendation sent to:

Dr. Christopher Barney, Chair
Department of Biology
Hope College
35 East 12th Street
Holland, MI 49422-9000

Applications received by 8 November 1996 will be assured full consideration. Additional information about Hope College is available through the college's home page, <http://www.hope.edu>.

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

PROFESSOR AND CHAIR PHYSIOLOGY AND BIOPHYSICS

School of Medicine and Biomedical Sciences, State University of New York (SUNY) at Buffalo. This Department has been recently formed through amalgamation of the Physiology and Biophysics departments and has close ties to SUNY's major investment in structural biology. The successful candidate will have an internationally recognized record of achievement in research, as well as a commitment to professional, graduate, and undergraduate training programs for students in health related professions. Previous administrative experience is desirable. Candidates should have a Ph.D., M.D., D.V.M., D.D.S., or equivalent degree. Salary, laboratory space, and other resources are negotiable. Interested persons should submit curriculum vitae, brief descriptions of research interests and educational interests, and the names and addresses of three referees. All materials should be sent to: **Dr. John Hay, Chairman, Physiology and Biophysics Chair Search Committee, School of Medicine and Biomedical Sciences, SUNY at Buffalo, Box 1, 138 Farber Hall, Buffalo, NY 14214.** (Deadline for receipt of applications is December 31, 1996.) *SUNY is an Affirmative Action/Equal Opportunity Employer. Women and minority applicants are particularly encouraged to apply.*

TENURE-TRACK FACULTY POSITION Department of Microbiology and Immunology SUNY Health Science Center at Syracuse

The Department of Microbiology and Immunology at the SUNY Health Science Center at Syracuse invites applications for a tenure-track, full-time position at the **ASSISTANT PROFESSOR** level. Competitive applicants will have a Ph.D. degree or equivalent, postdoctoral experience, and a record of innovative research productivity. Salary, space, and start-up funds are competitive with national levels. Applications including a statement of research interests and goals; a curriculum vitae; and names, addresses, and telephone numbers for three references should be sent to: **Steven M. Taffet, Ph.D., Chair of the Search Committee, Department of Microbiology and Immunology, SUNY Health Science Center at Syracuse, 750 East Adams Avenue, Syracuse, NY 13210.** The deadline for applications is November 1, 1996.

The SUNY Health Science Center at Syracuse is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

INVERTEBRATE ECOLOGIST

We invite applications for a tenure-track **ASSISTANT PROFESSOR** position, to begin in August 1997. Applicants should have a Ph.D., and postdoctoral experience is preferred. The successful candidate will be expected to collaborate with faculty in the department and to develop an extramurally funded research program; a focus on insect communities is preferred. Departmental research strengths include quantitative biology, population biology, plant-microbe and plant-animal interactions, community ecology, and ecosystem dynamics. Other responsibilities include directing graduate students; sharing introductory zoology, environmental science, or ecology classes; and developing an advanced graduate course. Applicants must send a curriculum vitae and statement of research and teaching interests, and have three letters of recommendation sent to arrive by November 8, 1996, to:

Ecology Search Committee
Department of Biological Sciences
Texas Tech University
Lubbock, TX 79409-3131

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

Human/Mammalian Genetics. The Rowe Program in Molecular Medicine and Human Genetics at the University of California, Davis, is soliciting applications for mammalian geneticists. This program is centered on development and application of techniques defining genetic basis and mammalian models of human disease. These tenured positions are at the **ASSISTANT PROFESSOR** level. Higher level appointments considered for unusually qualified candidates. Successful candidates will have outstanding training in genetic epidemiology and/or molecular genetics, strong publication records, and well-defined research goals. Letters of interest, curriculum vitae, synopsis of research plans, and names and addresses of three references should be forwarded to: **Dr. Michael F. Seldin, Chair, Rowe Program Search Committee, Department of Biological Chemistry, University of California-Davis, Davis, CA 95616.** Applications will not be accepted after July 1, 1997. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

BIOCHEMISTRY—VASSAR COLLEGE

Applications are invited for a tenure-track **ASSISTANT PROFESSOR** of Chemistry to begin September 1997. Teaching responsibilities include general chemistry and advanced biochemistry lecture and laboratory courses. Vassar offers an interdepartmental major in biochemistry and the candidate would direct the Biochemistry Program on a rotating basis with biology faculty. A research program suitable for undergraduates is required.

Vassar is a co-ed liberal arts college offering an A.C.S.-certified chemistry degree in modern, well-equipped facilities. Please send a curriculum vitae, a synopsis of research plans, a statement of teaching philosophy, three letters of recommendation, and undergraduate and graduate transcripts by December 1, 1996, to: **Marianne H. Begemann, Department of Chemistry, Maildrop 406, Vassar College, Poughkeepsie, NY 12601.** Email: begemann@vassar.vassar.edu. *Vassar is an Equal Opportunity/Affirmative Action Employer.*

VISITING FACULTY POSITION BIOLOGY

New Mexico Institute of Mining and Technology seeks a **MICROBIOLOGIST** for a one-semester sabbatical leave replacement faculty position for spring 1997 semester, faculty ranks open. Teaching responsibilities include environmental microbiology plus one other course. A Master's degree in biology, microbiology, or related field or equivalent course work is required. Ph.D. in biology, microbiology, or related field preferred. Must have the ability to communicate effectively in English. Submit curriculum vitae, transcripts, statement of teaching interests, and three letters of reference by November 15, 1996. Submit application material to: **New Mexico Institute of Mining and Technology, Human Resources, Wells Hall Box C-091B, Socorro, NM 87801.** For information about New Mexico Tech, see web (<http://www.nmt.edu/>). *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR: The Department of Entomology, University of Minnesota, is seeking applicants for a 12-month, tenure-track position in field crop insect pest management. The person will hold tenure in the Department of Entomology, University of Minnesota, St. Paul campus, but be located at the University of Minnesota, Crookston Agriculture Experiment Station. The successful applicant will develop an active extension program (~55% time), with complementary undergraduate teaching (~30%) and research (~15%) programs on insect pests of barley, wheat, sugarbeet, sunflower, and canola, with emphasis in Northwest Minnesota (Red River Valley). A Ph.D. in entomology or equivalent doctorate in entomology, or related field, and experience in outreach education and integrated pest management (IPM) is required. Excellent communication skills, demonstrated outreach and/or research productivity, and experience in field or vegetable crop IPM are desired. Detailed position description available by mail, or by <http://www.ent.agri.umn.edu/jobs/facipm.htm>. Interested individuals should send letter of application; a separate statement of extension/teaching/research goals; curriculum vitae; transcripts; up to six outreach and/or research publications; and names, addresses of five references. Applications must be postmarked by January 6, 1997 to be considered. Send application to: **Marla Spivak, Chair, Search Committee, Department of Entomology, 219 Hodson Hall, University of Minnesota, St. Paul, MN 55108.** Telephone: 612-624-9272; FAX: 612-625-5299. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

ASSISTANT PROFESSOR

Endowed Chair Position in NMR Spectroscopy University of Notre Dame

The College of Science of the University of Notre Dame is seeking applicants for an **ENDOWED CHAIR** position in NMR spectroscopy as applied to problems in the life sciences. The appointment will be made in the Department of Chemistry and Biochemistry and will commence in the fall of 1997. The successful candidate for this tenure-track, assistant professor-level position will have demonstrated excellence in scientific research and a strong commitment to effective and creative teaching in undergraduate and graduate courses offered by the College. Preference will be given to applicants with research interests in the development and application of multidimensional NMR spectroscopy (high-resolution liquid or solid-state) to studies of the structural and dynamic properties of biologically important molecules. Excellent high-resolution NMR instrumentation is currently available (300 MHz, 500 MHz, and 600 MHz spectrometers), an imaging spectrometer is scheduled for installation in the spring of 1997, and plans are under development for the further enhancement of this instrumentation. Applicants should submit, before November 25, 1996, a letter of application, a curriculum vitae including a list of publications, and a summary of research plans and teaching interests, and should arrange for three letters of recommendation to be sent to: **Professor Anthony S. Serianni, Chair, Life Sciences NMR Search Committee, Department of Chemistry and Biochemistry, University of Notre Dame, Notre Dame, IN 46556.** *The University of Notre Dame is an Affirmative Action/Equal Opportunity Employer.*

TWO ASSISTANT PROFESSOR FACULTY POSITIONS University of Wisconsin-Green Bay Department of Human Biology

Two **TENURE-TRACK** positions in an interdisciplinary department: 1) Microbiology with emphases in virology, immunology, or epidemiology; 2) Reproductive and Developmental Biology with emphases in endocrinology or aging. The successful candidate will demonstrate potential for excellence in teaching and ability to establish a research program and to guide undergraduate research. Normal teaching load is 21 credits per year. Review of applications will begin on December 16, 1996 and positions will remain open until filled. Please send letter of application, curriculum vitae, transcripts, recent reprints, and three letters of reference to: **Microbiologist Position or Reproductive Biologist Position, Human Biology Office, University of Wisconsin-Green Bay, 2420 Nicolet Drive, Green Bay, WI 54311.** Telephone: 414-465-2681; FAX: 414-465-2769. Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality. *University of Wisconsin-Green Bay is an Affirmative Action/Equal Opportunity Employer; minority candidates and women are encouraged to apply.*

DIRECTOR

National Space Biomedical Research Institute

Texas A&M University has joined with Science Applications International Corporation (SAIC) in a proposal to operate the National Space Biomedical Research Institute (NSBRI) in cooperation with NASA's Johnson Space Center in Houston, Texas. We are seeking a Director for the Institute.

The Institute will be a national effort for conducting biomedical research to support the long-term human exploration and development of space, to enhance life on Earth by applying research advances and technological development, and to conduct education and outreach activities. The Cooperative Agreement Notice 9-CAN-96-01 for the NSBRI is available through the Internet at <http://www.jsc.nasa.gov/bd2/> under Business Opportunities.

Contact: Robert A. Kennedy,
V.P. for Research and Assoc. Provost for Graduate Studies
Texas A&M University
312 Administration Building, College Station, TX 77843-1112
409-845-8585 E-mail: hr@admin.tamu.edu



Texas A&M
University

General Responsibilities

The Director is responsible for all aspects of the NSBRI, including the research plan, promotion, vitality and integrity of the research program, interface with NASA, and staffing, as well as public relations, education and outreach activities. The Director will report to the Executive Vice President and Provost of Texas A&M University.

Criteria/Qualifications

The Director should have: demonstrated expertise and experience leading and managing a research institute; a national and international reputation in biomedical research; excellent interpersonal skills; experience in developing and implementing a comprehensive research plan; experience with life science space research; and an understanding of and experience in extramural research and business development. Candidates must have a PhD and/or MD and qualify for a tenured academic appointment in one of the colleges at Texas A&M University. In addition, the candidate should have teaching experience, especially at the graduate level, and research and technology development experience in the private sector.



Science Applications
International Corporation
An Employee-Owned Company

NEUROPSYCHOLOGIST STAFF FELLOW

The Clinical Epilepsy Section, Epilepsy Research Branch, Division of Intramural Research NINDS has an opening for a Staff Fellow Neuropsychologist to conduct studies in children and adults with epilepsy, and normal controls. The Fellow will be expected to develop a personal research program consistent with the Section's mission. Previous neuropsychological research in the Section has focused on cortical representation of language and memory, comparison between mapping using imaging techniques and direct cortical stimulation, and the study of functional reorganization due to seizures. PET and fMRI have been emphasized in the Section's work, and will continue to be used extensively in the future, supported by strong NIH functional imaging core facilities. Initial appointment is for two years, with yearly extensions possible up to five years. Stipend, determined by candidate's educational and professional experience, ranges from \$28,000-\$45,336. *NINDS is committed to an affirmative action program that includes steps to improve the representation of minorities, women, and the handicapped in the mainstream of basic and clinical neuroscience research.*

For further information, contact:

William H. Theodore, M.D., Chief,
Clinical Epilepsy Section, Telephone:
301-496-1505, Fax: 301-401-2871,
Email: theodore@alw.nih.gov

Roche

ANIMAL DRUG SAFETY

PROJECT MANAGER

Hoffmann-La Roche, a major force in the field of international Animal Health and Nutrition, has recently expanded its animal drug portfolio. As part of an aggressive plan to further strengthen our position as a world leader, we are inviting applications for the position of Project Manager in the Animal Health Preclinical Development Group.

The successful candidate will be responsible for planning and managing drug safety research programs to support worldwide registration of animal health drugs. The research will focus on the evaluation of the Toxicity and environmental impact of new animal drugs and will involve extensive international collaboration with external researchers and consultants.

The ideal candidate will possess a Ph.D. in toxicology, pathology, pharmacology or related field with a minimum of five years directly related industrial or academic experience. Strong communication and presentation skills and the ability to work in a multi-discipline team environment are essential. Experience in performing studies to GLP standards and in dealing with regulatory agencies is highly desirable. This position will involve overseas travel.

We offer a competitive salary and progressive benefits package. To apply, please send resume and salary requirements to: **Human Resources Department 95050, Roche Vitamins and Fine Chemicals, 45 Eisenhower Drive, Paramus, New Jersey 07652, USA.** We are an equal opportunity employer.

Roche

**Roche Vitamins &
Fine Chemicals**

A Member of the Roche Group

POSITIONS OPEN

CHAIR Department of Immunology University of Washington

The University of Washington School of Medicine has opened a search for the position of **PROFESSOR** and **CHAIR** of the Department of Immunology. The Department has outstanding faculty; excellent facilities; and well-funded, highly productive research programs. The teaching functions of the Department are predominately focused at graduate students but also include medical, dental, and undergraduate students. The Department has an NIH-supported Graduate Training Grant in immunology and the faculty participate in the M.D./Ph.D. as well as other interdisciplinary training programs. Applications are solicited from distinguished scientists with active research programs in immunology who have the leadership skills required to direct a first-rate academic department.

Applications should be submitted to: **Nelson Fausto, M.D., Chair of the Immunology Chair Search Committee, Department of Pathology, Box 357470, University of Washington, Seattle, WA 98195-7470.** Deadline for receipt of applications is December 15, 1996. Applications should include a curriculum vitae, a statement of interests and goals, and the names of five references. *The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The University is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION DEPARTMENT OF MOLECULAR BIOLOGY MASSACHUSETTS GENERAL HOSPITAL Department of Genetics Harvard Medical School

The Department of Molecular Biology at Massachusetts General Hospital and the Department of Genetics at Harvard Medical School invite applications at the level of **ASSISTANT PROFESSOR** for a position to begin September 1997. We are seeking applicants working in any field of genetics, molecular biology, and/or biochemistry. The laboratory will be located in the Massachusetts General Hospital Department of Molecular Biology and the faculty appointment will be in the Harvard Medical School Department of Genetics.

Applications should include a curriculum vitae, reprints of publications, a statement of research plans, and three letters of recommendation. This material should be sent by December 15, 1996 to: **Howard M. Goodman, Chief, Department of Molecular Biology, Wellman 11, Massachusetts General Hospital, Boston, MA 02114.**

Harvard University and the Massachusetts General Hospital are Equal Opportunity/Affirmative Action Employers. We encourage applications from women and minority groups.

WOMEN AND SCIENCE POSITION

The science departments and the program of women's studies at Agnes Scott College invite applications for a **VISITING PROFESSORSHIP** during 1997-98 in women and science. Responsibilities include teaching one undergraduate course each semester, leading a faculty/course development seminar, and participating in planning for an Atlanta Science Center for Women. Rank is open, but minimal requirements are a Ph.D. in a science and five years' teaching experience. Salary commensurate with rank and qualifications. Faculty on sabbatical may find this a desirable opportunity.

To ensure full consideration, applications should be received by January 13, 1997. Send letter of application describing teaching interests and scholarly plans; curriculum vitae; and names, addresses, and telephone numbers of three professional references to: **Dr. Gail Cabisi, Agnes Scott College, Box 736, 141 East College Avenue, Decatur, GA 30030-3797.** Agnes Scott is a Presbyterian-affiliated, liberal arts college for women located in metropolitan Atlanta, Georgia. *Agnes Scott strongly urges members of underrepresented groups to apply. Equal Opportunity Employer.*

LECTURER, BIOINFORMATICS

Applications are invited for a two-year appointment. The incumbent will work with faculty and industrial advisory committees on the development of a bioinformatics curriculum, and will participate in teaching. Salary will be commensurate with experience.

Applicants should send curriculum vitae to: **Professor Charles DeLisi, Office of the Dean, Boston University College of Engineering, 44 Cummington Street, Boston, MA 02215.**

POSITIONS OPEN



COLUMBIA UNIVERSITY ASSISTANT PROFESSOR Department of Pharmacology

Applications are invited for two tenure-track positions at the **ASSISTANT PROFESSOR** level in the Department of Pharmacology. Successful candidates are expected to establish independent research programs that utilize contemporary techniques of molecular biology. Areas of interest include, but are not limited to, receptor-mediated signal transduction, the cytoskeleton, apoptosis, and regulation of ion channels. A Ph.D. or M.D. and at least two years of postdoctoral research are required. Candidates should submit their curriculum vitae, a brief statement of research interests and future plans, and the names of three references to: **Dr. Daniel Goldberg, Search Committee, Department of Pharmacology, Columbia University, 630 West 168th Street, New York, NY 10032.** *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

The Department of Biology at Illinois Wesleyan University has a tenure-track opening at the **ASSISTANT PROFESSOR** level in Molecular Genetics. Candidate must have a Ph.D., a broad background in biology, and a strong commitment to undergraduate teaching excellence and the promise of research. Responsibilities include teaching genetics (introductory and advanced), an upper-level molecular cellular biology course, participation in the General Biology course, and supervision of undergraduate student research. Teaching load is 12 contact hours per semester. Facilities are housed in a new \$25 million Science Center, and include a newly equipped molecular genetics/cell biology lab. Appointment begins August 1997. Applicants should submit a letter of application, curriculum vitae, transcripts, three letters of recommendation (including comments on teaching effectiveness), a one-page statement of teaching philosophy, and an outline of future research plans to: **Dr. Bruce B. Criley, Chairman, Department of Biology, Illinois Wesleyan University, Bloomington, IL 61702-2900.** Consideration of applicants will begin on November 1, 1996 and continue until the position is filled. *Illinois Wesleyan is an Equal Opportunity Employer; women and minorities are encouraged to apply.*

ASSISTANT PROFESSOR

Eastern Oregon State College seeks to fill a position in biology at the **ASSISTANT PROFESSOR** level. The successful candidate will teach human anatomy and physiology, cell biology, animal physiology, and some general biology labs each year. A strong commitment to undergraduate education is essential. All faculty actively participate in academic advising, research, student seminars, campus committees, curriculum development, community outreach, and the regional mission of the college. This is a full-time, nine-month, tenure-track appointment. Salary based on academic preparation and prior experience. A Ph.D. is required, preferably with an anatomy or physiology specialization. Submit letter of application, curriculum vitae, and a copy of all baccalaureate/postbaccalaureate transcripts, and have three letters of recommendation sent to: **Dr. John Rinehart, Chair, Biology Search Committee, Badgley Hall, Eastern Oregon State College, 1410 "L" Avenue, La Grande, OR 97850-2899.** Deadline for application: November 30, 1996 or until filled. Starting date: September 16, 1997. Inquiries to: **Dr. John Rinehart, Telephone: 541-962-3874; FAX: 541-962-3873; Email: rinehart@eosc.osshe.edu.** *Eastern is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT/ASSOCIATE DIRECTOR, Searle Center for Teaching Excellence, Northwestern University (NU). Works with Director on forums, workshops, consultations, and publications for NU faculty. Should have substantial college/university teaching experience (Ph.D. in sciences preferred). Administrative position, possible co-terminus faculty appointment. Review begins November 1, 1996. Cover letter, résumé, and one page on teaching philosophy to: **Ken Bain, Director, Searle Teaching Center, 627 Dartmouth, Evanston, IL 60208-4181.** More information at www.nwu.edu/scfte/Position.htm. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

THREE TENURE-TRACK POSITIONS Biology/Natural Resource Management

The Department of Biology at Grand Valley State University invites applications for three positions at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. We seek individuals with proven ability to teach undergraduates, to conduct scholarly activity (especially involving undergraduate students), and to participate in community outreach. Ph.D. required. Academic areas desired include 1) comparative animal physiology; 2) K-6 teacher education (Ed.D. with strong biology background acceptable); 3) natural resources management or environmental science with expertise in field surveying and mapping, GIS, and ecosystem monitoring; and 4) plant biology with emphasis in morphology, anatomy, and systematics. The teaching load is 12 contact hours per semester and includes at least one introductory and one advanced course. Salaries commensurate with experience and qualifications. Submit letter of application with evidence of teaching effectiveness; statements of teaching philosophy and research plans; curriculum vitae; and all transcripts (unofficial) to: **Chair, Biology and NRM Search Committee, Biology Department, Grand Valley State University, Allendale, MI 49401-9403. Telephone: 616-895-2470; Email: rogersk@gvsu.edu.** Closing date for applications is December 2, 1996.

HARVARD MEDICAL SCHOOL Biological Chemistry and Molecular Pharmacology

Harvard Medical School invites applications and nominations for the **DEPARTMENT HEAD** of Biological Chemistry and Molecular Pharmacology (BCMP). The faculty (21 members) has three areas of primary research focus: biochemistry of DNA replication, repair and transcription; structural biology; and molecular pharmacology. The department head will not only be responsible for providing leadership in basic research, graduate and medical education, and faculty development, but will also work with the Dean to develop short- and long-range academic plans for the Department. The successful candidate will be a pre-eminent scientist in mechanistic biochemistry, molecular or structural biology, who can ensure continued excellence of the programs of research and education. Applicants should send their curriculum vitae to: **Marc W. Kirschner, BCMP Search Committee Chair, Department of Cell Biology, Harvard Medical School, 240 Longwood Avenue, Boston, MA 02115-5730.** *Harvard Medical School is an Equal Opportunity/Affirmative Action Employer. Harvard University is committed to increasing the number of women and minorities among its faculty, so applications from such candidates are especially encouraged.*

ASSISTANT PROFESSOR

The Department of Biological Sciences, University of Iowa, invites highly qualified applicants for a **TENURE-TRACK** position in molecular evolution. Required qualifications include: a Ph.D. degree; postdoctoral research experience; significant publication record in leading scientific journals; and evidence of the ability to develop a strong, independent research program with high visibility in the international scientific community. Teaching duties will include an undergraduate evolution course and an advanced seminar course. Applicants should ask three referees to send letters of recommendation and should themselves send a curriculum vitae, statement of future research objectives, description of teaching interests, and selected reprints or preprints to: **Molecular Evolution Search Committee, Department of Biological Sciences, University of Iowa, 138 Biology Building, Iowa City, IA 52242-1324.** Applications will be reviewed starting December 1, 1996. *The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are especially encouraged to apply.*

ASSISTANT PROFESSOR—BIOLOGY: State University of New York (SUNY) at Potsdam invites applications for a full-time tenure-track position as assistant professor of biology effective fall 1997. Responsibilities are to teach cell physiology and general physiology lab and assist with the teaching of general biology. Qualifications are a Ph.D. in an area of biology that would prepare one to teach cell physiology and general physiology lab and an ability to teach undergraduates as required; competency in an additional area of biology would be considered a plus. Send letter of application, curriculum vitae, and three references to: **Dr. Albert Robinson, Chair, Biology Search Committee, SUNY Potsdam, Potsdam, NY 13676.** Deadline for receipt of applications is January 15, 1997. *State University of New York College at Potsdam is an Equal Opportunity/Affirmative Action Employer committed to excellence through diversity.*

THE UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
An Initiative in Molecular, Cellular, and Physiological Biology
Three Positions at the Assistant, Associate, or Full Professor Level

These positions represent the first in a series of hires to be made during the next five years.

Developmental Biology (Position #1)

The Department of Cell and Structural Biology encourages scientists with interests in the molecular, cellular, and genetic basis of development to apply. The successful applicant will join a young, expanding department with groups studying development in *Drosophila*, *C. elegans*, *Xenopus*, chick, and mouse model systems.

Microbial Diversity (Position #2)

The Department of Microbiology invites applicants with research interests in the physiology, biochemistry, or molecular genetics of prokaryotic microorganisms that further expand the Department's breadth of microbial diversity to apply. Extensive interdepartmental interactions exist in microbial and eukaryotic cell and molecular biology, immunology, developmental biology, evolution, biochemistry, and biophysics.

Physiology (Position #3)

The Department of Molecular and Integrative Physiology invites applicants with interests in integrative physiological issues, especially adaptational physiology, who also have a good command of diverse modern biological approaches, including molecular techniques, to apply. The appointee will join a strong department with broad interests and expertise in molecular, cellular, and systems/integrative physiology.

All three positions are full-time, tenure track. The starting date for all positions is August 1997. The successful candidates, at the Assistant Professor level, are expected to develop a vigorous and independently funded research program. A Ph.D. with postdoctoral experience is required. Applicants with qualifications that merit higher level appointments will also be considered but such appointments will require evidence of outstanding research accomplishments including extramural funding and national recognition. Applicants at all levels would be expected to contribute to undergraduate/graduate teaching. Substantial start-up funds and laboratory facilities will be provided. Salary commensurate with experience. Applicants should submit a statement describing their research interests and plans, curriculum vitae, and list of publications, and should arrange for three letters of reference to be sent to:

Position #: _____

Ann Zielinski, Search Coordinator
 B107 Chemical & Life Sciences Laboratory
 601 S. Goodwin Ave.
 Urbana, IL 61801
 (217) 333-4469

(Please indicate position number in cover letter as well.)

To ensure full consideration, applications should be received by December 1, 1996. Interviews may be conducted before the closing date, but no final decisions will be made before that time.

The University of Illinois at Urbana-Champaign offers an outstanding and exciting academic research environment including a Biotechnology Center providing subsidized state-of-the-art services in: hybridoma production, DNA and peptide synthesis, DNA sequencing, flow cytometry, electron microscopy, X-ray crystallography, and computer analyses.

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



DEKALB Genetics Corporation
Research Associate

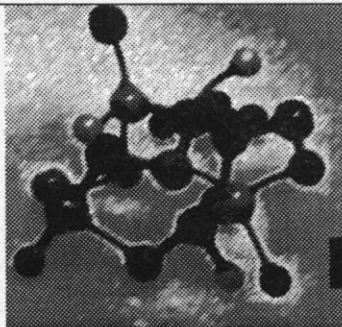
DEKALB Genetics Corporation is an international researcher, producer, and marketer of agricultural seed. Product research and development are the foundation of our business.

DNA Markers Group seeks a well-organized scientist with experience in the development and implementation of high throughput assays. The successful candidate will assist in the development of a high throughput DNA marker system.

All applicants should have an **M.S. in biological sciences** and be well-versed in molecular biology techniques with experience operating robotic liquid handling devices. Knowledge in genetic analyses is preferred.

The successful candidate will be located at DEKALB's biotechnology research facility in Mystic, CT. DEKALB offers competitive compensation, an attractive benefits package, and an outstanding working environment.

Send resume and the names, addresses, and phone numbers of three professional references to **Human Resources, DEKALB Genetics Corporation, 62 Maritime Drive, Mystic, CT 06355-1958.**



SENIOR SCIENTISTS

IMMUNOLOGICAL DISEASES/R&D

At Boehringer Ingelheim, our commitment to innovative research and scientific exploration has made us a major international pharmaceutical company. Currently, our Immunological Diseases Department has opportunities for dedicated scientists.

As one of 2 new members of an interdisciplinary drug discovery team, you will support a well-established leukocyte adhesion R&D program. Additionally, you will manage a laboratory and supervise its staff.

One position requires a Ph.D. in Biological Science and experience in integrin structure/function and intracellular signaling. (Dept. MH-71-835)

One position requires a Ph.D. in Cell Biology or Immunology and experience in endothelial cell biology and leukocyte-endothelial cell adhesion. (Dept. MH-70-835)

BOTH positions require at least 2 years' of post-doctoral experience, strong supervisory abilities, along with effective oral, written, and interpersonal communication skills.

Boehringer Ingelheim is located on a campus-like setting in a beautiful area of Western Connecticut, which borders New York State. We offer excellent facilities and a supportive, challenging environment. For an opportunity to contribute to our innovative programs, send your resume with a brief cover letter, indicating the appropriate Department code, to: *Boehringer Ingelheim Pharmaceuticals, Inc., Dept. _____, 900 Ridgebury Road, P.O. Box 368, Ridgefield, CT 06877. We are an equal opportunity employer m/f/d/v. As a progressive health care company, we have a smoke-free environment.*



**Boehringer
Ingelheim**

POSITIONS OPEN

NEUROSCIENCE/MRI FACULTY POSITIONS University of Kentucky Medical Center

The Department of Anatomy and Neurobiology and the Sanders-Brown Center on Aging invite applications for two tenure-track positions in neuroscience with an emphasis on using magnetic resonance imaging (MRI) or spectroscopy. The positions will be at either the **ASSISTANT** or **ASSOCIATE PROFESSOR** level, depending on experience and qualifications. Successful candidates will show exceptional promise for establishing strong extramurally funded research programs using MRI in the areas of stroke, aging of the nervous system, and/or neurodegenerative diseases. The Research MRI Center has a research-dedicated 1.5 T Siemens VISION unit with high performance gradients, EPI and multinuclear spectroscopic capabilities, and a 4.7 T Varian Imaging/Spectroscopy system. Applicants should have a Ph.D., M.D., or equivalent degree. Applicants should send curriculum vitae, a short statement of research and teaching interests, and the names of three references to: **Dr. Don M. Gash, Chair of Search Committee, Department of Anatomy and Neurobiology, Chandler Medical Center MN224, Lexington, KY 40536-0084.** *The University of Kentucky is an Equal Opportunity Employer.*

FACULTY POSITION Biochemistry and Biophysics University of California, San Francisco

The Department of Biochemistry and Biophysics, University of California, San Francisco, offers a tenure-track **ASSISTANT PROFESSOR** position. Individuals working in modern biology, including cell biology, development, biological structure, genetics, and biochemistry, will be considered. Candidates should hold a Ph.D. or M.D., and will be expected to establish a dynamic research program and to be a top quality teacher in graduate/professional school courses. By October 30, 1996, submit a curriculum vitae, summary of research accomplishments, description of future research plans, major publications, and three to five letters of recommendation to: **Search Committee, Biochemistry and Biophysics, University of California, San Francisco, CA 94143-0448.** *The University of California, San Francisco, is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

Animal Physiologist. **ASSISTANT PROFESSOR**, tenure-track, anticipated fall 1997, to teach human physiology and an appropriate upper-level physiology course and contribute to introductory biology. Ph.D. required; postdoctoral experience highly desirable.

Applicants must demonstrate excellence in undergraduate teaching and have developed a research program that can involve undergraduates, including collaborative publication. Experience in a small college setting desirable.

Ursinus, northwest of Philadelphia in a suburban setting, is a highly selective, residential, co-ed, liberal arts college of 1200 students with a long tradition of strength in science. Laboratory facilities, supported by numerous grants from the National Science Foundation and the Howard Hughes Medical Institute, are outstanding.

Send letter of application and curriculum vitae to: **Ellen Dawley, Department of Biology, Ursinus College, Collegeville, PA 19426-1000** by December 6, 1996. *Ursinus College is an Equal Opportunity/Affirmative Action Employer.*

DEVELOPMENTAL MOLECULAR BIOLOGIST

Tenure-track **ASSISTANT PROFESSOR** position starting July 1997. Ph.D. required. Teaching and postdoctoral research experience desirable. The successful candidate will participate in undergraduate courses in developmental biology, cellular biology, and recombinant DNA techniques, and in University-wide programs. The appointee will join a biology faculty deeply involved in creating a strong research-oriented program for upper-class undergraduate students, and will contribute to this effort. Applications are especially encouraged from candidates whose research focuses on developmental biology using molecular techniques. We will consider this position as a joint appointment for dual-career couples. Please forward a letter of application with curriculum vitae, transcripts, statement of teaching and research interests, and representative publications by November 8, 1996 and arrange to have three letters of recommendation sent as quickly as possible to: **Dr. Barbara Hoopes, Chair of Search Committee, Department of Biology, Colgate University, Hamilton, NY 13346-1398.** *Women and minorities are especially encouraged to apply. Colgate University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT/ASSOCIATE/FULL PROFESSOR Macromolecular Crystallography

The Department of Biochemistry and Molecular Biology at Indiana University School of Medicine is seeking applicants for a full-time **TENURE-TRACK** position. Applicants should have a Ph.D., M.D., or equivalent degree and postdoctoral experience. The new faculty member is expected to develop independent research programs and participate in the teaching of medical and graduate students. Competitive space and start-up funds are available. The X-ray crystallography facility includes an RAXIS IIC image plate area detector and nine SGI workstations for data processing and graphic display. Supporting spectroscopic and biotechnology facilities include MS, NMR, CD, AFM, and protein and nucleic acid synthesis and sequencing. The Department is seeking an individual with research interests in the study of protein, nucleic acid, or membrane-associated macromolecules by X-ray crystallography. The Department seeks to strengthen existing ties with the School's Diabetes and Cancer Centers. Applicants should submit their curriculum vitae, a description of research plans, and the names and Email addresses of three references to: **Dr. William F. Bosron, Department of Biochemistry and Molecular Biology, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202-5122.** Email: biochem@iupui.edu. Our Web site is <http://www.biochemistry.iupui.edu>. *Indiana University is an Equal Opportunity/Affirmative Action Educator, Employer, and Contractor; Minorities/Females.*

FACULTY POSITION University of Arkansas for Medical Sciences Department of Pharmacology and Toxicology

The Department of Pharmacology and Toxicology has a **TENURE-TRACK** position available. Candidates at levels of Assistant Professor, Associate Professor, and Professor are invited to apply. We are seeking individuals with records of research excellence and strong interests in medical education. The credentials of a candidate for the position at a senior academic rank would be expected to include extramural funding. Research and teaching experience in some aspect of cardiovascular pharmacology is preferred. Laboratory and office space is available in the new basic research building on the University of Arkansas for Medical Sciences campus. A substantial start-up package will be provided to the successful candidate. Candidates should submit a curriculum vitae and the names and addresses of three individuals whom we may contact for letters of reference. Applications should be submitted to: **Dr. Galen Wenger, Director, Division of Pharmacology, College of Medicine, University of Arkansas for Medical Sciences, 4301 West Markham Street, Little Rock, AR 72205.** *The University of Arkansas for Medical Sciences is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

EXECUTIVE DIRECTOR: The Ecological Society of America (ESA) invites applicants for the position of Executive Director. The Executive Director will manage the society's headquarters in Washington, D.C., with its staff of 23 and operating budget of \$2.5 million. Primary responsibilities will include: management of the business and financial affairs of the society, including oversight of the financial office, public affairs office, membership and subscriptions office, publications office in Ithaca, New York, and other programs sponsored by the society; representation of the society and the science of ecology to the executive and legislative branches of government, federal and state agencies, tribes, public and private foundations, and the general public; and identification of opportunities to seek foundation, corporate, and private support to expand the sponsored programs and build the working capital of the society. Seeking candidates who have demonstrated ability to manage complex organizations, associations, or programs; direct supervisory experience; strong written and oral communication skills; and experience in networking with the scientific community, government agencies, and non-governmental organizations. Preference will be given to candidates with a Ph.D. in ecology or a related scientific field who also have experience in administration/management of scientific organizations. Individuals without Ph.D.'s will be considered. The position will be filled in early 1997. Applications, including a letter of interest, résumé, salary history, and names of three references, should be sent to: **Dr. Ann M. Bartuska, USDA Forest Service, Forest Health Protection, P.O. Box 96090, Washington, DC 20090-6090—Attention: ESA Search Committee.** FAX: 202-205-1139. Deadline for submission is December 1, 1996.

POSITIONS OPEN

ASSISTANT PROFESSOR OF DEVELOPMENTAL BIOLOGY UNIVERSITY OF PENNSYLVANIA

The Department of Animal Biology, School of Veterinary Medicine, has a **TENURE-TRACK** opening for a developmental biologist to join a department strongly oriented to basic research within the biomedical community at the University of Pennsylvania. Individuals studying mechanisms of development at the cellular, biochemical, or molecular level are encouraged to apply. Applicants should have a Ph.D. or equivalent degree and related postdoctoral training; be prepared to establish an independent, extramurally funded research program; and be prepared to participate in departmental teaching and University-wide graduate programs. Send by January 15, 1997 a curriculum vitae, three letters of reference, and a statement of research program to: **Dr. Michael Atchison, School of Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104-6046.** *Equal Opportunity/Affirmative Action.*

ASSISTANT PROFESSOR: MICROBIOLOGY

The Department of Biochemistry/Microbiology of Oklahoma State University College of Osteopathic Medicine (OSU-COM) invites applications for a full time, 12-month tenure-track **FACULTY** position in an expanding division of Basic Sciences. Candidates should have expertise in one or more areas of molecular microbiology such as mechanisms of pathogenesis or genetics. Research facilities, start-up funds, competitive salary, and environment for professional development will be provided. Must have commitment to establishing a successful research program and will be expected to participate in team teaching Medical Microbiology to medical students, develop a graduate course in area of expertise, and participate in training of graduate students. Doctoral degree and postdoctoral research experience in molecular biology are required. Prefer knowledge of mycology. Applications reviewed beginning December 15, 1996; open until filled. Candidates should send a letter of application, statement of research interest, curriculum vitae, and the names and addresses of three to five professional references to: **Dr. Robert S. Conrad, Chair, Department of Biochemistry/Microbiology, OSU-COM, 1111 West 17th Street, Tulsa, OK 74107-1898.** *OSU-COM is an Equal Opportunity/Affirmative Action Employer.*

EXECUTIVE DIRECTOR American Institute of Biological Sciences

This is a full-time position with administrative responsibility for the Institute's office in Washington, D.C. American Institute of Biological Sciences (AIBS) is a member- and society-governed federation of 45 scientific societies, museums, and research laboratories and 5,000 individual members, with a full-time staff of 15.

Applicants should have a Ph.D. in the biological sciences or a closely related discipline; at least ten years of professional experience in the biological sciences; experience in education; experience with the executive and legislative branches of the federal government; an appreciation for the research enterprise; and excellent leadership, communication, interpersonal, and writing skills.

Submit a letter of intent, résumé, and the names of five references by December 9, 1996, to: **AIBS Executive Director Search, AIBS, 1444 Eye Street NW, Suite 200, Washington, DC 20005.**

AIBS is an Equal Opportunity/Affirmative Action Employer.

POPULATION GENETICIST EVOLUTIONARY BIOLOGIST

We have approval for a **TENURE-STREAM** position starting July 1997 in the area of population genetics and evolutionary biology. Preference will be given to applicants with a background in molecular techniques. Ph.D. is required and postdoctoral research and teaching experience is desirable. The successful candidate will team-teach in the required introductory biology course as well as genetics, and will offer a research course for undergraduates. There may also be opportunities to teach in molecular biology courses if suited to the applicant's background. We will consider this position as a joint appointment for dual-career couples. Please forward a letter of application with curriculum vitae, transcripts, statement of teaching and research philosophies, and three letters of recommendation by January 6, 1997 to: **Dr. Robert Arnold, Chair of Search Committee, Biology Department, Colgate University, Hamilton, NY 13346.** *Women and minorities are encouraged to apply. Colgate University is an Equal Opportunity/Affirmative Action Employer.*



The Van Andel Institute
Founded by Jay and Betty Van Andel

**The Van Andel Research Institute
Director of Nutrition Research Institute**

The Van Andel Nutrition Research Institute invites applications for the position of Director of an Institute based on "nutrient influence on gene expression." The Director should be an active researcher with the leadership skills to recruit and interact with a team of five to ten senior researchers.

**State of the Art Facilities — Guaranteed
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**University Appointment — Excellent
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For confidential consideration, please submit your C.V. and a letter stating the reasons for your interest in leading this Institute.

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Grand Rapids, MI 49503
Tel: 616-235-8242
Fax: 616-235-8245**

PENN
UNIVERSITY of PENNSYLVANIA

School of Medicine

Chair, Department of Radiology

The University of Pennsylvania School of Medicine seeks outstanding candidates for the position of Professor and Chair of the Department of Radiology.

The successful applicant will be of international stature in his/her area of research and will provide academic leadership in the broadly defined area of Radiology. Applicants who have demonstrated qualifications in the creation, implementation and administration of large programs in clinical care, research, and education will have priority.

The University is an Equal Opportunity/Affirmative Action employer. Women, minority, and international candidates are encouraged to apply. Letters of interest, CV, and names of references should be sent to:



**David W. Kennedy, M.D.
Chair, Radiology Search Committee
Chair Department of
Otorhinolaryngology:
Head and Neck Surgery
University of Pennsylvania
School of Medicine
3400 Spruce Street
5th floor Ravdin
Philadelphia, PA 19104-4283**

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

**Tenure Track Computer Science Faculty
Coordinator for Computer Concepts and Uses**

Salem State College is seeking to fill a tenure track position in Computer Science for the fall of 1997. Responsibilities include coordination, development and teaching of computer concepts and uses, and computer-related service level courses; network administration; and advising students. Required qualifications include an earned doctorate (ABD considered); experience teaching college level computer concepts and uses courses and service-level computer-related courses; experience in curriculum development in the areas of (a) computer concepts and uses, and (b) computer-based training at the college level. Preferred are a doctorate in Computer Education and/or formal computer science course work; extensive academic and/or industrial experience in stated disciplines and in network design and management (ideally in an academic environment); experience in coordinating multi-section, multi-instructor courses. All faculty are expected to serve as role models and mentors for a diverse student body. Preferred are persons with experience in and/or commitment to working in a multi-cultural, multiracial environment with students of diverse backgrounds and learning styles. Salary is competitive and commensurate with education and experience. Position is advertised pending funding.

Application review will begin December 1, 1996. Please send applications immediately.

To apply, send letter of application specifying department and position for which you are applying, resume, appropriate transcripts and three letters of reference to: Office of Equal Opportunity and Human Rights, Salem State College, 352 Lafayette St., Salem, MA 01970.

If applying for more than one position, a separate package must be submitted for each. Single applications for more than one position will not be considered.

SALEM STATE COLLEGE IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER. PERSONS OF COLOR, WOMEN AND PERSONS WITH DISABILITIES ARE STRONGLY URGED TO APPLY.

Salem 
STATE COLLEGE



**FACULTY POSITION
IN
BIOCHEMISTRY AND
MOLECULAR BIOLOGY
THE UNIVERSITY OF CHICAGO**

The Department of Biochemistry and Molecular Biology at The University of Chicago invites applications and nominations for a tenure-track position at the rank of Assistant Professor. We seek candidates with a record of outstanding research and a strong potential to build an effective research program in the structure and function of proteins and nucleic acids or macromolecular assemblies. Those who anticipate using the Advanced Photon Source at Argonne National Laboratory are especially encouraged to apply. Successful candidates will be expected to teach in our departmental program. Applications should include a complete curriculum vitae, a full list of publications, a summary of past research, a plan for future research, and letters of reference from at least three individuals who know the candidate's work well. Please submit complete applications and nominations by December 15, 1996 to:

**Chair, Faculty Search Committee
Department of Biochemistry and Molecular Biology
The University of Chicago
920 East 58th Street
Chicago, IL 60637**

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

UofL UNIVERSITY OF LOUISVILLE

Dean of the College of Arts and Sciences

The University of Louisville seeks applications and nominations for the position of Dean of the College of Arts and Sciences. As a state university in Kentucky's largest city, the University of Louisville offers graduate, baccalaureate, and associate degrees in over 170 fields of study through 13 schools and colleges. The University currently enrolls 22,000 students, 10,000 of whom matriculate in the College of Arts and Sciences.

Providing a comprehensive liberal arts education, the College of Arts and Sciences includes 20 departments in the core academic disciplines, as well as a variety of interdisciplinary programs offered through the Division of Humanities, the Division of Social Sciences and the Division of Natural Sciences. With a full-time faculty of 300, the College offers 42 undergraduate major programs and 31 graduate degrees.

The Dean is the Chief Academic and Administrative Officer of the College of Arts and Sciences and reports directly to the Provost. The Dean ensures the academic integrity of all educational programs, encourages excellence in teaching, fosters research, creative professional activity and collegiality, oversees the fiscal well-being of the unit, and is responsible for alumni relations and the solicitation of major gifts for the College.

Candidates must qualify for a tenured appointment in one of the disciplines within the College and possess prior administrative experience as well as a record of significant achievement in teaching and professional activity. Commitment to academic excellence in the context of innovative efforts to meet the challenges and opportunities of higher education in an urban center is essential. The University of Louisville is an equal opportunity, affirmative action employer. Women and minorities are especially encouraged to apply.

Applications are requested by December 15, 1996. Review of applications will begin immediately with a goal of campus visits for the finalists in late February 1997. The appointment will be effective July 1997.

Applications should include a letter of interest, providing information about the candidate's qualifications and vision for the College, a resume, as well as names and addresses of 6 individuals willing to provide references. Please send applications to:

Professor Mary Hawkesworth, Chair
Arts and Sciences Dean Search Committee
c/o Office of the Provost
University of Louisville
Louisville, KY 40292



EMINENT SCHOLAR — ENDOWED CHAIR

Associate Director: Institute of Molecular Medicine and Genetics, Medical College of Georgia.

The Institute of Molecular Medicine is a newly formed component of the Medical College of Georgia. It has the mission of developing an integrated program that particularly emphasizes research in cell signaling, molecular immunology, gene regulation, and developmental biology. A program in neuro-oncology is under development in conjunction with the division of Neurosurgery. The Institute occupies a new 80,000 square foot research building that is fully equipped for modern medical research. Institute resources include transgenic mouse and zebrafish facilities; a molecular biology core; video imaging with both confocal and electron microscopy; and cytofluorometry. Additional facilities, including a monoclonal antibody production core, are available on the University of Georgia at Athens campus.

The Medical College of Georgia is now seeking an Associate Director who will assume a major leadership position in the Institute as well as pursue an independent research program. Substantial resources have been reserved to support this latter program. This position is at the academic rank of Professor and is supported by a fully endowed chair for an Eminent Scholar. Priority will be given to applicants who can relate basic research to clinical problems and, therefore, an M.D. or M.D./Ph.D. degree(s) will be a definite asset, but not an absolute requirement.

Reply with CV to: **Howard Rasmussen, M.D., Ph.D., Chair, Search Committee, Institute of Molecular Medicine and Genetics, Medical College of Georgia, Augusta, GA 30912-2697.** *The Medical College of Georgia is an affirmative action, equal opportunity employer. We invite applications or nominations of women and racial minorities.*

Dean, College of Ocean and Fishery Sciences UNIVERSITY OF WASHINGTON

Applications and nominations are invited for the position of Dean, College of Ocean and Fishery Sciences. The University of Washington is the largest public university in the northwest region, with an orientation toward undergraduate and graduate education and research. The College of Ocean and Fishery Sciences comprises five of the major units of the University in the marine and fresh water sciences. These include the Schools of Fisheries, Oceanography and Marine Affairs, the Applied Physics Laboratory, and the Washington Sea Grant Program. The College is one of the largest of its kind in the United States. In 1996, it had an enrollment of 190 undergraduate and 270 graduate students, a faculty of 190, and a total research and instructional budget of \$55 million. As a part of its teaching and research mission, the College manages UNOLS research vessels, maintains several freshwater and marine research facilities, and is planning construction of major new buildings for Oceanography and Fisheries to be completed by 2000. The College also anticipates a growing role in the expansion of the University's undergraduate environmental education program.

Desired qualifications of the Dean include an earned doctorate, an established reputation as a basic or applied scientist, a strong commitment to teaching, and proven skills in leading a complex multidisciplinary organization. The Dean should also be able to represent the College to a variety of professional and community organizations. Salary is open and negotiable.

Deadline for nominations and applications: December 15, 1996

Anticipated starting date: July 1, 1997

Nominations or applications with resumes should be sent to:

Dean Allen D. Glenn, Chair, Advisory Committee
Dean of the College of Ocean and Fishery Sciences
University of Washington
222 Miller Hall, Box 353600
Seattle, Washington 98195-3600
Attention: Ms. Maggie Patterson

The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The University is an Equal Opportunity/Affirmative Action employer.



Department of Molecular Microbiology and Immunology BROWN UNIVERSITY FACULTY POSITION IN IMMUNOLOGY

A full-time faculty position is open for an Assistant Professor (tenure-track) with research interests in immunology, using mouse models, to study immune responses to microbial infections *in vivo* and/or *in vivo* lymphocyte development and function. Final selection will be of a candidate of outstanding ability. Applicants should have a doctoral degree and at least two years of postdoctoral experience using mouse models. They must show evidence of ability to establish and maintain a productive, independent, externally funded research program, and must demonstrate potential for excellence in teaching immunology and/or microbiology. Opportunities exist to interact with members of the Graduate and Postdoctoral Programs in the Division of Biology and Medicine. Teaching responsibilities include participation in the basic science microbiology course for medical students, as well as an upper level course in immunology and/or microbiology. Academic advising of undergraduate and graduate students and service to the Division of Biology and Medicine are responsibilities assumed by all faculty members of the Department. The appointment will begin on or after July 1, 1997. Applications received by December 15, 1996 will receive full consideration. Applicants should submit a curriculum vitae including research and teaching experience, publications, and future research plans; enclose representative reprints; and have three letters of recommendation sent to **Dr. Christine A. Biron, Chairperson of the Faculty Search Committee, Department of Molecular Microbiology and Immunology, Box G-B6, Division of Biology and Medicine, Brown University, Providence, RI 02912.**

We encourage qualified women and minority candidates.

Brown University is an equal opportunity/affirmative action employer.



PANLABS[®]
PH.D. SCIENTIST
PHARMACOLOGY

PANLABS, INC., a leading contract research provider in the fields of drug discovery, pharmacological testing, and process improvement, located in Bothell, Washington (just outside of Seattle) has a position available for an individual with 2-5 years of experience, including some in industry. Qualifications include a broad understanding of pharmacology, including molecular pharmacology, along with proven experimental and analytical skills. Effective communication skills and the ability to perform in a highly interactive and multi-disciplinary environment are required. The selected candidate will be responsible for planning, designing, and conducting experiments and will develop and validate new pharmacology assay protocols for the discovery and/or characterization of molecules targeting a wide range of therapeutic areas. Individual will participate in strategic planning and prioritization of new assay development activities, including molecular, cellular, tissue, and animal-based testing methods. Submit resume to:

PANLABS, INC.

A Subsidiary of MDS Health Group, Ltd.

Attn: Human Resources #96-6

11804 North Creek Parkway South

Bothell, WA 98011

FAX: 206-487-8262

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Biochemistry/Molecular Biology

The selected individual will pursue leading-edge research in metalloproteases implicated in cardiovascular and inflammatory diseases. This project will involve basic research in enzyme cloning and expression as well as biochemical and biophysical studies. The chosen candidate will be strongly encouraged to publish in peer-reviewed journals and make presentations of their results. This individual will have a highly interactive relationship with the Biological Chemistry Department at the University of Michigan. A recent Ph.D. in Biochemistry, Molecular Biology or a related discipline along with a strong background in enzymology, cloning, site-directed mutagenesis and expression of mammalian proteins are required. JOB CODE: CJM-963181

Pharmacokinetics/Drug Metabolism

The selected individual will study the cytochrome P450 induction potential of preclinical drugs in a human hepatocyte cell culture system. This will be accomplished by culturing isolated human and animal hepatocytes in the presence of potential drug inducers while examining the changes in cytochrome P450 expression and activity. A Ph.D. with experience in the isolation and culturing of hepatocytes and knowledge of cytochrome P450 are required. Additional experience with Western or Northern blotting and HPLC is preferred.

JOB CODE: CJM-963195



Members of the Parke-Davis team enjoy competitive salaries, benefits and career growth potential. Please send, fax or e-mail your resume, indicating the position of interest, to: **Parke-Davis Pharmaceutical Research, Human Resources Department, 2800 Plymouth Road, Ann Arbor, MI 48105.**

Fax: (313)998-3394. E-mail: resume@aa.wl.com.

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NEW BASIC SCIENCE POSITION
UNIVERSITY OF SOUTHERN CALIFORNIA
A SEARCH FOR AN ASSISTANT OR
ASSOCIATE PROFESSOR
SPONSORED BY THE DEPARTMENT OF
ORTHOPEDIC SURGERY

The Institute for Genetic Medicine and the Department of Orthopedic Surgery are seeking candidates with special research interests in molecular biology and genetics as they relate to human disease to develop an independent research program. The successful candidate will have a joint appointment in an appropriate basic science department of the School of Medicine. Candidates with a wide range of interests will be considered, including research activities involving development of models for human genetic disease, development of gene transfer vehicles including viruses and genetically engineered cells, and the molecular genetics and biology of stem cells and cytokines. Candidates whose research interests relate to problems of bone infection, inflammation, growth, or regeneration will be given special consideration. Clinically based or translational research could be an important component of the candidate's research program. The faculty appointee must have a Ph.D. or M.D. degree and will be expected to interact with orthopedic surgical faculty and fellows in addition to developing an independent research program and participating in both medical and graduate student teaching programs. Faculty members will be housed within the new Institute for Genetic Medicine research facility. Candidates eligible for an associate professorial appointment should demonstrate evidence of sustained extramural funding.

The University of Southern California and its Medical School have made a major commitment to building a program in gene therapy and genetic medicine. The faculty members will play a major role in defining the future expansion of the Institute for Genetic Medicine.

Candidates should send their curriculum vitae and bibliography and a statement of research and teaching interests, including a description of how their activities would interface with an orthopedic surgery research program. Send these materials and arrange to have three letters of reference sent to **Laurence H. Kedes, M.D., Executive Director, Institute for Genetic Medicine, University of Southern California, 2011 Zonal Avenue, HMR413, Los Angeles, CA 90033.**



Developmental Neurobiology Position at PENN

Applications are invited for a tenure track faculty position in the area of Developmental Neurobiology at the University of Pennsylvania School of Medicine. Promising researchers using vertebrate systems to study inductive or trophic interactions, pattern formation, cell fate determination, synaptic specificity, or any other fundamental developmental process in the nervous system are encouraged to apply. Generous startup funds are available. Candidates must hold the M.D., Ph.D., or both degrees. The appointment will be made in the Department of Neuroscience or Neurology, as appropriate. Applicants should send a CV, a brief statement of research interests, and have at least two letters of recommendation sent to:



Chair/Developmental Neurobiology
Search Committee
215 Stemmler Hall
Philadelphia, PA 19104-6074

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER
 WOMEN AND MINORITIES ARE ENCOURAGED TO APPLY.

POSITIONS OPEN

PLANT ECOLOGIST AND CURATOR

The Blandy Experimental Farm of the University of Virginia seeks an ecologist or evolutionary biologist at the **ASSISTANT PROFESSOR** level with research interests in plants and/or plant-animal interactions to contribute to its research and education programs, and to serve as the Curator of the **Orland E. White Arboretum** (The State Arboretum of Virginia) located near Boyce, Virginia. This position requires a Ph.D.; a willingness to work with the general public and active volunteer support group; and the ability to thrive within a small, remote academic community. This is a General Faculty position renewable on three-year contracts. Please direct inquiries to **E. F. Connor** via Email: efc7n@virginia.edu or at the address below. Send application letter and curriculum vitae (with names of at least four references) to: **E. F. Connor, Department of Environmental Sciences, Clark Hall, University of Virginia, Charlottesville, VA 22903**. Review of applications will begin 15 December 1996. *The University of Virginia is an Equal Employment Opportunity Employer.*

RESEARCH ASSOCIATE ACADEMIC APPOINTMENT

To work and supervise technical personnel in a highly productive cardiovascular research laboratory studying myocardial metabolism and coronary vascular control, especially in the setting of myocardial overload or injury. Qualifications: Ph.D. and/or M.D. with at least two years of experience in surgery preparation and use of large animal models of cardiovascular disease. *U.S. citizen or permanent resident*. Previous training in biochemistry and molecular biologic techniques required. Apply: **Robert Bache, M.D., CARD, Box 508, University of Minnesota, Minneapolis, MN 55455**. Last date to apply November 30, 1996. Start date: January 1, 1997. *University of Minnesota is an Equal Opportunity Educator and Employer.*

LONG-TERM RESEARCH ASSISTANT POSITION Molecular Biology/Immunology/Cell Biology

The Lymphocyte Biology Section in the Laboratory of Immunology, NIAID, NIH, is seeking a highly motivated individual with outstanding skills and training in molecular biology, immunology, and/or cell biology to head a small intralaboratory research and resource group. The successful candidate will carry out research under the guidance of the Section Chief, **Dr. Ronald Germain**. Activities will include conducting specific research projects as well as service contributions to the entire laboratory. Journal publications and presentations at scientific meetings will be encouraged. Minimal requirements are substantial research experience in and extensive knowledge about one or more of the areas listed above and a documented ability to conduct and communicate the results of sophisticated research projects. *U.S. citizenship required*. A doctoral degree and postdoctoral experience are highly desirable. Applications (curriculum vitae or SF171 form) with three letters of reference should be sent to: **Ms. Joann Martin, Building 31, Room 7A27, 10 Center Drive MSC-2520, Bethesda, MD 20892-2520**. *The NIH is an Equal Opportunity Employer.*

PRODUCT DEVELOPMENT SCIENTISTS

High-throughput assays: Develop receptor-ligand assay systems for anti-viral drug discovery. Fermentation: Culture and scale-up of yeast and other expression systems for producing recombinant proteins. Qualifications: Ph.D. with relevant prior experience. Salary: Commensurate with qualifications. Please forward curriculum vitae and names of three references to: **Viral Therapeutics, Inc., 95 Brown Road, Ithaca, NY 14850**. Email: VTI@lightlink.com.

SMITHSONIAN INSTITUTION FELLOWSHIP PROGRAM

Graduate Student, Predoctoral, Postdoctoral, and Senior **FELLOWSHIPS** in animal behavior, ecology, and environmental science, including an emphasis on the tropics; earth sciences and paleobiology; evolutionary and systematic biology; history of science and technology. Tenable in residence at the Smithsonian facilities. Stipends and tenure vary.

Deadline: January 15 annually. Contact: **Office of Fellowships and Grants, 955 L'Enfant Plaza, Suite 7000, Desk S, Washington, D.C. 20560**. Telephone: 202-287-3271; Email: siof@si.edu. *An Equal Opportunity Employer.*

POSITIONS OPEN

INSTITUTE OF GENOMIC MEDICINE MOLECULAR BIOLOGIST/ GRANTS SCHOLAR

The Institute of Genomic Medicine (IGM), a nonprofit organization dedicated to understanding the genomic causes of human disease, seeks to hire a molecular biologist/geneticist with outstanding conceptualization and writing skills. This person will serve as the **GRANTS SCHOLAR** for a highly qualified team of scientists (M.D.'s and Ph.D.'s). Candidates must possess a Ph.D. degree in molecular biology with strong interests in the genetics and cell biology of human disease. Recent postdoctoral experience is essential. Scientific insight, dedication, achievement focus, and teamwork skills are musts.

The Institute of Genomic Medicine was founded by scientists from Harvard Medical School. The Institute is located in the greater Boston area, amidst strong academic institutions. The IGM offers a competitive salary and benefits package. The significant opportunities for professional growth in an environment of innovation and excellence makes this a very unique position.

Qualified candidates should submit a cover letter, their curriculum vitae, samples of scientific writing, and two letters of reference to: **Dr. George Scheele, Institute of Genomic Medicine, 260 West Cummings Park, Woburn, MA 01801**. *An Equal Opportunity Employer. Minorities/Females/Disabled/Veterans.*

RESEARCH SCIENTIST GYNECOLOGIC CANCER University of Pennsylvania

The Division of Gynecologic Oncology at the University of Pennsylvania Medical Center, an NCI-designated Comprehensive Cancer Center, seeks an individual (Ph.D. or M.D./Ph.D.) to direct a basic laboratory research program related to gynecologic cancer. Substantial start-up funding and state-of-the-art facilities provided. A broad range of interests can be accommodated. This is a tenure-track **FACULTY** position, with academic rank and salary commensurate with experience. Please direct inquiries to:

Stephen C. Rubin, M.D.
Professor and Director

Division of Gynecologic Oncology
University of Pennsylvania Medical Center
3400 Spruce Street
Philadelphia, PA 19104-4283

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

MOLECULAR MARKERS

Seminis Vegetable Seeds invites applications for a **RESEARCH SCIENTIST** position. The scientist will develop molecular markers in vegetable crops. Ph.D. in relevant field plus experience in molecular techniques and the development of molecular maps required. Incumbent will be expected to collaborate with marker group, breeders, and pathologists to incorporate new marker screens into existing breeding programs. Salary is commensurate with experience. Applicants should submit curriculum vitae and the names of three references to: **Seminis Vegetable Seeds, 37437 State Highway 16, Woodland, CA 95695**. Applications should be labeled Job Number 96-27 and should be received by November 8, 1996.

RESEARCH FELLOWSHIPS EPIDEMIOLOGY OF LUNG DISEASES

National Institutes of Health-supported stipends and tuition fees for a two-year program working in airways hyperactivity and/or natural history studies on chronic lung disease, along with didactic training in epidemiology leading to a Master's degree from Harvard University. Must be eligible in Internal Medicine or equivalent. Clinical training in pulmonary diseases preferred but not required. Available for *U.S. citizens or permanent residents*. Inquire: **Frank E. Speizer, M.D., Professor of Medicine, Harvard Medical School, Co-Director, Channing Laboratory, Department of Medicine, Brigham and Women's Hospital, 181 Longwood Avenue, Boston, MA 02115-5804**. *This program specifically encourages applications by minority group members. The Brigham and Women's Hospital is an Equal Opportunity Employer.*

POSITIONS OPEN

LABORATORY SUPERVISOR MOLECULAR DIAGNOSTICS

The Department of Pathology/Clinical Laboratories at Duke University Medical Center and Health System is currently seeking candidates for the position of laboratory **SUPERVISOR, Molecular Diagnostics**. The successful candidate will hold a Ph.D. degree in a clinical laboratory science or basic science, and will have a background in the application of molecular diagnostics principles to test development and implementation in clinical laboratory testing.

The laboratory supervisor will be responsible for the ongoing clinical laboratory operations and will work with faculty in new molecular-based test development. Applicants should have a solid base in molecular diagnostics and be certified in clinical laboratory science by a nationally recognized agency or have experience working in a molecular diagnostics laboratory. ABMG certification in clinical molecular genetics is highly desirable.

Applicants should submit current curriculum vitae with names and addresses of four references to: **Laboratory Supervisor Search, Gordon C. Edwards, Ph.D., Executive Director, Clinical Laboratories, Department of Pathology, Duke University Medical Center and Health System, Durham, NC 27710**. *Duke University is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH SPECIALIST

RESEARCH SPECIALIST for cellular immunology laboratory. Human and murine models to investigate the biology of T-cells and major histocompatibility complex molecules in viral infection and inflammation/autoimmunity. Candidates should have a Bachelor's in biology or closely related field; have experience with T-cell clones, protein chemistry, and/or molecular biology; and be willing to work with mice and tissue culture. For fullest consideration please submit résumé by October 28, 1996. Candidates should forward curriculum vitae to: **Dr. Neal Nygard and Dr. Mary Beth Graham, Section of Rheumatology (M/C 733), Department of Medicine, Room 1158 MBRB, University of Illinois at Chicago College of Medicine, 900 South Ashland Avenue, Chicago, IL 60607-7171**. FAX: 312-413-9271. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSOCIATE UNIVERSITY OF VIRGINIA Experimental High Energy Physics

The University of Virginia High Energy Physics group is seeking qualified applicants for a **RESEARCH ASSOCIATE** position to work on the physics of CP violation. In the short term, this work will focus on the KTeV experiment at Fermi National Accelerator Laboratory, and, on a longer time scale, on the LHC-B beauty physics experiment at CERN. This position is now open. The successful candidate is expected to play an important role in the KTeV experiment in the operation of an e^+e^- trigger based on a transition radiation detector and in the development of lepton detectors and triggers for the LHC-B experiment. Applications including curriculum vitae, a list of publications, and three letters of reference should be sent to: **Prof. B. Cox, Physics Department, McCormick Road, University of Virginia, Charlottesville, VA 22901**. Information concerning this position may be obtained through Email: Cox@UVAHEP.phys.virginia.edu.

CHIEF, SCIENTIFIC REVIEW OFFICE National Institute on Aging, GS 601/602-15

The National Institute on Aging (NIA), National Institutes of Health (NIH), Public Health Service, is seeking a **CHIEF** for the Scientific Review Office (GS 601/602-15, \$73,486 to \$95,531). Applications are invited from candidates with demonstrated strong scientific, management, and administrative skills. Experience with peer review of health research grant applications is essential. Broad knowledge of principles, theories, and practices related to the scientific fields of aging research is desirable.

U.S. citizenship is required. Send a résumé and/or the Optional Application for Federal Employment (OF-612, or the Application for Federal Employment (SF-171) to: **Christine Hartz, NIA Personnel Office, Building 31, Room 2C02, 31 Center Drive MSC 2292, Bethesda, MD 20892-2292**. Telephone: 301-496-5347. To receive a faxed copy of the complete vacancy announcement, call 1-800-728-5627, ID Number 1215.

NIH is an Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIPS at the WOODS HOLE OCEANOGRAPHIC INSTITUTION

Applied Ocean Physics & Engineering
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Marine Geology & Geophysics
Physical Oceanography

Applications are invited from new or recent doctorates in the fields of biology, molecular biology, microbiology, chemistry, engineering, geology, geophysics, mathematics, meteorology and physics, as well as oceanography. Recipients of awards are selected on a competitive basis, with primary emphasis placed on research promise.

Fellowships are awarded for 18 month appointments with a stipend of \$37,000 per year, a modest research budget and eligibility for group health insurance. Recipients are encouraged to pursue their own research interest in association with resident staff. Completed applications must be received by January 17, 1997 for the 1997-98 awards. Awards will be announced in March. Write for application forms to:

Dean of Graduate Studies, MS #31
Woods Hole Oceanographic Institution
Woods Hole, MA 02543-1541
Or call (508) 289-2219
or e-mail lcampbell@whoi.edu

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Pharmacopeia is a dynamic biopharmaceutical company that applies novel encoding technology to chemical combinatorial synthesis enabling production of large and diverse libraries of low molecular weight chemical compounds for use in drug screening and optimization programs. PHARMACOPEIA has exciting research opportunities in our expanding company for:

BIOLOGISTS

Seeking PhD level Molecular Biologists, Biochemists, Enzymologists, and Cell Biologists. Candidates should have at least 3 years of post-doctoral experience and a strong commitment to independent research.

Experience in 7-transmembrane receptors, intracellular signal transduction and implementation of high-throughput screens particularly desired.

SYNTHETIC/BIOCONJUGATE CHEMIST

Seeking a PhD level organic chemist with experience in multistep synthesis. Candidates should have post-doctoral experience and a strong commitment to innovative research at the interface between chemistry and biology. Experience with using fluorescent molecules to label biologically-active receptor ligands and enzyme substrates is particularly desirable.

Pharmacopeia is located in Princeton, NJ, an area known for its excellent educational and cultural environment. We offer a highly competitive salary and benefits package including a stock option plan. Qualified individuals should send a cover letter and resume to:

Pharmacopeia

Attn: Human Resources, Job Code B-1

101 College Road East, Princeton, NJ 08540

Fax: 609-452-2434

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Education and Training Division

Oak Ridge Institute for

Science and Education

P.O. Box 117

Oak Ridge, TN 37831-0117

(423) 576-9975

Deadline January 15, 1997

Biology Faculty

Salem State College is seeking to fill two tenure track positions and one temporary position in Biology for the fall of 1997. All faculty are expected to serve as role models and mentors for a diverse student body. Preferred are persons with experience in and/or commitment to working in a multicultural, multi-racial environment with students of diverse backgrounds and learning styles. Salary is competitive and commensurate with education and experience. Positions are advertised pending funding.

Anatomy and Physiology (Tenure Track) - Responsibilities include teaching general biology and courses in human anatomy and physiology for students in healthcare-related majors as well as non-majors; advising students interested in pursuing graduate degrees in such healthcare-related fields as physical therapy. Required qualifications include a Ph.D. in Biology, and two years of successful full-time college level teaching of both lectures and laboratories at an accredited institution. Preferred are two years of successful full-time college teaching in anatomy and physiology as well as general biology and experience advising students pursuing healthcare-related fields.

Fish Biologist/Aquaculture (Tenure Track) - Responsibilities include teaching general biology; developing upper division course(s) in fish biology (marine and freshwater) and marine vertebrate biology applicable to the Marine Biology concentration and Aquaculture programs; assisting in the development of new program(s) in Aquaculture; supervising independent projects by students in this area; advising students in any new Aquaculture program as well as existing Marine Biology program. Required qualifications include a Ph.D. in Biology or a related field and a minimum of two years of full-time successful college teaching of lectures and laboratories at an accredited institution. Preferred are two or more years of successful teaching of courses in general biology, fish biology and/or marine vertebrates, and aquaculture.

Cell and Molecular (One year temporary position) - Responsibilities include teaching general biology; developing upper division course(s) in molecular biology; assisting in possible development of new concentration in Cell and Molecular Biology; supervising independent projects by students in this area; and general student advising. Required qualifications include a Ph.D. in Biology or a related field; a minimum of two years of full-time successful college level teaching of lectures and laboratories at an accredited institution; and demonstrated experience using molecular biological techniques. Preferred are a minimum of two years of successful full-time college level teaching of courses in general biology, and molecular and cell biology.

Application review will begin December 1, 1996. Please send applications immediately.

To apply, send letter of application specifying department and position for which you are applying, resume, appropriate transcripts and three letters of reference to: Office of Equal Opportunity and Human Rights, Salem State College, 352 Lafayette St., Salem, MA 01970.

If applying for more than one position, a separate package must be submitted for each. Single applications for more than one position will not be considered.

SALEM STATE COLLEGE IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER. PERSONS OF COLOR, WOMEN AND PERSONS WITH DISABILITIES ARE STRONGLY URGED TO APPLY.

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POSITIONS OPEN

SENIOR FELLOW—GLOBAL CLIMATE WORLD RESOURCES INSTITUTE

The World Resources Institute (WRI), an independent policy research organization, invites applications for the position of **SENIOR FELLOW** to play a leadership role in developing and promoting policy options that best address the threats of climate change and in shaping WRI's overall strategy for achieving this end. The successful candidate will have a broad understanding of climate policy issues and will have undertaken cutting-edge research on this or related issues. Candidates should have a background in economic theory, demonstrated expertise with quantitative research methods, demonstrated achievement in the analysis of issues related to climate policy, and excellent written and oral communication skills. A Ph.D. or equivalent training plus at least five years of experience is desirable. Salary in the range of \$60,000 to \$100,000. Send curriculum vitae or inquiries by October 31, 1996, to: **Dr. Walt Reid, World Resources Institute, 1709 New York Avenue, NW, Washington, DC 20006. FAX: 202-662-2511. Equal Opportunity Employer. Women and minorities encouraged to apply.**

FELLOWSHIPS for Postdoctoral Training in Neural Development, Plasticity, and Regeneration at The Ohio State University. Systems, cellular, and molecular approaches are available for trainees supported by a NINDS training grant. Faculty include **M. Beattie, B. Bishop, J. Boulant, R. Boyd, J. Bresnahan, J. Bruno, R. Burry, H. Cooke, M. Hadjiconstantinou-Neff, C. Heesch, L. Horrocks, J. King, J. Lucas, G. Martin, J. Masters, N. Neff, R. Nordlander, J. Oberdick, R. Rogers, A. Rotter, B. Stokes, J. Wood, and A. Yates.** Fellows supported by the training grant must be U.S. citizens or permanent residents.

Applications, including curriculum vitae, statement of research interests, and three letters of recommendation, should be sent to: **Dr. M. S. Beattie and Dr. G. F. Martin, Department of Cell Biology, Neurobiology and Anatomy, The Ohio State University, 333 West 10th Avenue, Number 4072, Columbus, OH 43210. Telephone: 614-292-1781; Email: beattie.2@osu.edu.** Potential applicants are encouraged to contact the program directors and prospective faculty sponsors for detailed information (<http://www.med.ohio-state.edu/Neuro/Neurohome.html>). The Ohio State University is an Affirmative Action/Equal Opportunity Employer and encourages women and minorities to apply.

POSTDOCTORAL POSITION Graft vs Host/Leukemia

Available immediately to study the mechanisms of graft vs host/leukemia using transgenic and knockout mice. Goal is to model induction and control of clinically relevant graft vs leukemia. Experience with murine cellular immunology required. Send curriculum vitae and three references to: **Dr. Mark Shlomchik, Laboratory Medicine, Yale-New Haven Hospital, CB465, 20 York Street, New Haven, CT 06504. FAX: 203-737-2748.**

POSTDOCTORAL RESEARCH ASSOCIATE Position Available Immediately

To study neurotrophin action on the somatosensory system with special emphasis on pain. Some electrophysiology experience highly desirable. Competitive salary based on experience and seniority. Please contact: **Imendell@brain.bio.sunysb.edu** or send curriculum vitae and names of three referees to: **Lorne Mendell, Ph.D., Professor and Chairman, Department of Neurobiology and Behavior, State University of New York at Stony Brook, Stony Brook, NY 11794-5230. Equal Opportunity/Affirmative Action Educator and Employer.**

THE NEUROSCIENCES INSTITUTE SAN DIEGO Cellular and Molecular Neurobiology

Applications are invited for the **POSTDOCTORAL** position of Junior Fellow in Experimental Neurobiology to study the formation and function of synapses using molecular, cell biological, and fluorescence imaging techniques. Applicants should have a background in molecular and cellular neurobiology, preferably with some experience in neuronal *in vitro* systems. Fellows will receive stipends appropriate to their qualifications and experience. Submit a curriculum vitae, statement of research interests, and names of three references to: **Dr. Olaf Sporns, The Neurosciences Institute, 10640 John J. Hopkins Drive, San Diego, CA 92121. FAX: 619-626-2099.**

POSITIONS OPEN

POSTDOCTORAL MOLECULAR BIOLOGY position is available to study how the [Fe-S] protein FdI interacts with Sox R/S to regulate the expression of NADPH: ferredoxin reductase (FPR) in *Azotobacter vinelandii*. The position may additionally involve study of nitrogenase and ferredoxin structure and function by construction of site-directed mutants. The successful candidate must have a Ph.D. and have training primarily in molecular biology. Send, fax, or Email curriculum vitae and have three letters of recommendation sent directly to:

**Dr. Barbara K. Burgess
Molecular Biology and Biochemistry
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POSTDOCTORAL RESEARCH POSITION AIDS Immunopathogenesis

A **POSTDOCTORAL POSITION** is available to study virologic and immunologic responses to human immunodeficiency virus in the SHARP Program, an NIH-supported training program at the University of Pittsburgh. Candidates should have a recent Ph.D. or equivalent, experience in molecular virology and/or immunology, and interest in studies of AIDS pathogenesis. *Candidates must be American citizens or possess an immigrant card.* Send curriculum vitae and the names of three references to: **Charles R.inaldo, Ph.D., Director, SHARP Program, A-416 Crabtree Hall, University of Pittsburgh, Pittsburgh, PA 15261. FAX: 412-624-4953; Email: rinaldo+@pitt.edu.**

POSTDOCTORAL RESEARCH ASSOCIATE

Candidates are sought by the Massachusetts General Hospital (MGH) Cancer Center to examine the function of neurofibromin. Applicants should have a background in molecular and cellular immunology with direct experience in recombinant DNA techniques, the study of lymphocyte proliferation, the analysis of cytotoxic T cells, and the reconstitution of immunodeficient mice. Please send curriculum vitae and names and addresses of three referees to: **Elin Woodger, MGH Cancer Center, Building 149, 13th Street, Charlestown, MA 02129-2060.**

POSTDOCTORAL POSITION available immediately in an NIH-funded project to study aging-associated alterations in antigen-specific responses by T lymphocytes using transgenic mouse models. The candidate should have training in immunology. Experience in tissue culture and flow cytometry is desirable. Interested candidates should send their curriculum vitae and the names of three references to: **Dr. Phyllis-Jean Linton, Sidney Kimmel Cancer Center, 11099 North Torrey Pines Road, Suite 250, La Jolla, CA 92037. Email: Linton1@ix.netcom.com.**

POSTDOCTORAL POSITION is available immediately to study molecular mechanisms of leukocyte chemotactic receptor regulation. Experience in cellular/molecular biology is essential. Please send curriculum vitae and a statement of research interest to: **Hydar Ali, Ph.D./Ralph Snyderman, M.D., Duke University Medical Center, Department of Medicine, Room 201C MSRB, Box 3680, Research Drive, Durham, NC 27710. Email: ali00001@mc.duke.edu. Duke University is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS: To study regulation of gene expression during fat synthesis and adipogenesis. Research areas include 1) mode of action and down-regulation of an inhibitor of adipocyte differentiation, and 2) nuclear factors that interact with the response elements of lipogenic enzyme genes for insulin regulation and its signal transduction pathway. Send curriculum vitae and names of references to: **Dr. Hei Sook Sul, Department of Nutritional Sciences, University of California, Berkeley, CA 94720.**

POSTDOCTORAL RESEARCH POSITION

Available immediately to study the molecular virology and pathogenesis of hepatitis C virus infection in man. Applicants should have a strong background in molecular biology and prior research experience in virology. Send curriculum vitae and names of three references to: **Dr. David Gretsch, University of Washington Viral Hepatitis Laboratory, Pacific Medical Center, 1200 12th Avenue South, 9th Floor, Seattle, WA 98144.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH POSITION IN SYSTEMATICS

Appropriate fields: anthropology, aquatic biology, botany, diatoms, entomology, geology, herpetology, ichthyology, invertebrate zoology, mammalogy, ornithology, and paleontology. Must have received Ph.D. within last five years. Stipend \$27,000, plus \$1000 expenses. Begins as early as 1 January 1997; normally a one-year appointment. Provide résumé; plan for collections-based research; and names, addresses, and telephone numbers of three references by 1 February 1997 to: **Tilton Fellowship Committee, Research Administration, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118.** For additional information, look at <http://www.calacademy.org/research>.

THE NEUROSCIENCES INSTITUTE SAN DIEGO Cellular Neurophysiology

Applications are invited for the **POSTDOCTORAL POSITION** of Junior Fellow in Experimental Neurobiology to study cellular and synaptic physiology in mammalian neocortex. Applicants should have a background in electrophysiology, preferably with brain slice and patch-clamp experience. Fellows will receive stipends appropriate to their qualifications and experience. Submit a curriculum vitae, statement of research interests, and names of three references to: **Dr. Ronald B. Langdon, The Neurosciences Institute, 10640 John J. Hopkins Drive, San Diego, CA 92121. FAX: 619-626-2099.**

A **POSTDOCTORAL POSITION** to study imaging reporter gene expression in living animals is available immediately. We are developing procedures to image the expression of reporter genes in living animals, using positron emission tomography. The techniques have application to problems in basic biology, through transgenic animals, and to clinical problems in gene therapy. A strong background in molecular biology and/or transgenic animal studies would be desirable. Send a curriculum vitae and the names, addresses, telephone numbers, and Email addresses of three references to: **Dr. Harvey Herschman, University of California, Los Angeles, 341 Molecular Biology Institute, 611 Circle Drive East, Los Angeles, CA 90095-1570. Email: Harvey@lbs.med.sch.edu.ucla.**

POSTDOCTORAL POSITIONS

Position available for a protein chemist to study structure/function relationships of exocrine anti-microbial proteins and for a molecular biologist to study gene expression, site-directed mutagenesis, and recombinant production of exocrine proteins. Send curriculum vitae and three letters of recommendation to: **Dr. Frank Oppenheim, Chairman, Department of Periodontology and Oral Biology, Boston University Medical Center, 100 East Newton Street, Room G-217, Boston, MA 02118.**

POSTDOCTORALS IN MEDICAL MYCOLOGY

Two **POSTDOCTORAL POSITIONS** are available to study how acyclic polyol metabolism in *Candida* (*J. Bacteriol.*, 175:6314, 1993 and 177:2971, 1995) and *Cryptococcus* (*Microbiol.*, 142:937, 1996; *J. Immunol.*, 156: 3836, 1996) relates to stress tolerance and animal virulence. Biochemistry/enzymology and molecular biology experience is desirable. Send curriculum vitae and three references to: **Brian Wong, Department of Internal Medicine, Yale University School of Medicine, VA Medical Center, 950 Campbell Avenue (111-I), West Haven, CT 06516. FAX: 203-937-3476; Email: wongbr@biomed.med.yale.edu.**

POSTDOCTORAL POSITION available immediately to participate in ongoing study of molecular changes in schizophrenic brain. Individuals with knowledge of neuroscience and experience in molecular biological techniques are preferred. Send curriculum vitae to: **Dr. Michael S. Lidow, OCBS Department, Room 5-A-12, University of Maryland at Baltimore, 666 West Baltimore Street, Baltimore, MD 21201-1586.**

Carnegie Mellon's Department of Engineering and Public Policy (EPP) has **POSTDOCTORAL POSITIONS** in: risk ranking (requires background in risk and experimental social science); uncertainty analysis (requires background in applied decision analysis); climate change impacts; regulatory reform. Résumé to: **Granger Morgan, EPP—BH 129, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213.**

POSITIONS OPEN

POSTDOCTORAL POSITION TBP and TAF Structure-Function Studies

An NIH-funded **POSTDOCTORAL POSITION** is available to examine the role of the TATA-Box Binding Protein TBP and its associated factors (TAFs) in transcription initiation complex formation in *Saccharomyces cerevisiae* (see *J. Biol. Chem.*, 269:23135; 269:28335; *Proc. Natl. Acad. Sci. USA*, 92:8224; *Biochemistry*, 34:8005; *Nature*, 383:188). We are currently using a combination of biochemical, genetic, and biophysical methods to study the interactions of these proteins with TBP, DNA, and other transcription factors. Interested parties should send a curriculum vitae and arrange to have three letters of reference sent directly to:

Dr. Tony Weil
Department of Molecular Physiology and Biophysics
Vanderbilt University
School of Medicine
Nashville, TN 37232-0615
FAX: 615-322-7236
Email: tony.weil@mcmail.vanderbilt.edu

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POSTDOCTORAL RESEARCH ASSOCIATE

The University of Florida Department of Biochemistry and Molecular Biology has a position to work in conjunction with an ongoing project regarding the mechanism of glutamine amide transfer enzymes. This person will conduct independent research on the kinetic mechanism of asparagine synthetase. Applicants must have extensive experience in the kinetics of multisubstrate enzymes, data analysis techniques, protein purification, protein blotting, and column chromatography. Basic molecular biology skills including PCR, DNA sequencing, and gene expression would be desirable.

Send curriculum vitae, statement of interest, and three letters of recommendation to: **Dr. Sheldon M. Schuster, Professor and Program Director, ICBR, University of Florida, Box 110580, Gainesville, FL 32611-0580.**

POSTDOCTORAL POSITION Growth Factor Signal Transduction

POSTDOCTORAL RESEARCH FELLOW position available immediately. Candidates should have a Ph.D. and/or M.D. and a strong background in molecular and cellular biology. Experience preferred in studying the mechanisms of PDGF-stimulated transcription of immediate-early genes (see *MCB*, 12:5288; *MCB*, 15:315; *JBC*, 271:17417). Projects involve gene cloning, DNA transfections, and RNA purification/quantitation. Send curriculum vitae, summary of research experience, and names and telephone numbers of three references to: **Rolf Freter, M.D., Ph.D., Columbia University, P&S Room 8-512, 630 West 168th Street, New York, NY 10032. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS Endocrine Transgenic Mouse Research

POSTDOCTORAL positions are available immediately in the Departments of Physiology and Biochemistry to work on transgenic mice that overexpress IGFBP-1 and -3 and IGFBP-3 knockout mice and expression of estrogen receptor variants in transgenic mice. Applicants should have a Ph.D., M.D., or equivalent and experience in molecular biology. Preference will be given to applicants with previous research experience in the IGF or estrogen receptor field. Suitable candidates should send their curriculum vitae to: **Dr. L. Murphy, University of Manitoba, Department of Physiology, Room 435, 730 William Avenue, Winnipeg, Manitoba R3E 3J7 Canada. FAX: 204-774-7751.**

POSTDOCTORAL POSITION available for basic experimental work on the protein folding problem. Research involves investigating conformational preferences of amino acids to form a beta strand as a function of solvent. Starting date is after November 15, 1996, and is flexible. Ph.D. required; experience with beta structures, circular dichroism, and computers desirable. For full consideration apply by November 1, 1996; position shall remain open until filled. Send curriculum vitae and arrange for three letters of reference to be sent to: **Prof. W. Curtis Johnson, Biochemistry and Biophysics, 2011 ALS Building, Oregon State University, Corvallis, OR 97331-7305. Telephone: 541-737-4511. Oregon State University is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to dual-career needs.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP in molecular biology available immediately for work on signal transduction mechanism in bone cells involving MAP kinase. Salary and benefits competitive. Send letter of interest, curriculum vitae, and names of three references to: **Dr. Lau, Min. Met. Lab., P.O. Box 7210, Loma Linda, CA 92354.**

RESEARCH ASSOCIATE and POSTDOCTORAL TRAINING opportunities are periodically available with the College of Biological Sciences at the University of Minnesota. Positions may be available in the Departments of Biochemistry; Ecology, Evolution and Behavior; Plant Biology; and Genetics and Cell Biology. Positions may also be available in the following research programs: the Biological Process Technology Institute, the Lake Itasca Forestry and Biological Station, and the Plant Molecular Genetics Institute. The Research Associate positions are for independent research. To be considered, applicants must hold a Ph.D. degree or foreign equivalent and at least two years of postdoctoral experience. Applicants are encouraged to secure salary support from an external granting agency. Multiple positions may be available, depending upon space and facilities, availability of funding, as well as faculty research interests. The postdoctoral training positions require a Ph.D. or foreign equivalent and appointments are limited to three years. Applications must indicate which position is of interest and must include a personal curriculum vitae; a brief statement of research interests and experience; and names, addresses, and telephone numbers of three references. Closing date for applications is June 30, 1997. Direct applications to: **Administrator, {Department Name}, College of Biological Sciences, 123 Snyder Hall, 1475 Gortner Avenue, St. Paul, MN 55108. The University of Minnesota is an Equal Opportunity Educator and Employer.**

Two **POSTDOCTORAL POSITIONS** in cellular and molecular hematology. To study: adhesion-coupled signal transduction, cell biology and assembly of platelet adhesion receptors and mouse models of adhesion deficiency disorders. Background in gene knockout and transgenic mice, molecular and cell biology, and protein chemistry are desirable. Must have M.D., Ph.D., or equivalent degree.

Send curriculum vitae, summary of research interest and experience, and names of three references to:

José A. López, M.D.
VA Medical Center
Hematology-Oncology Section (111H)
2002 Holcombe Boulevard
Houston, TX 77030-4298
FAX: 713-794-7578

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POSTDOCTORAL POSITION available to study the binding sites of tRNA, antibiotics, and other ligands on the ribosome, and the topography of other ribonucleoprotein complexes, by site-directed photochemical crosslinking. This interdisciplinary project includes use of recombinant RNA techniques for the preparation of photoreactive RNA molecules, design and synthesis of modified nucleosides for photo-crosslinking, and the development of new strategies for analyzing protein-RNA and RNA-RNA crosslinks at the molecular level. Salary commensurate with experience. Review of applications begins 15 November 1996 and will continue until a suitable candidate is identified. Send curriculum vitae and three letters of recommendation to: **Dr. Robert A. Zimmermann, Department of Biochemistry and Molecular Biology or Dr. Stephen S. Hixson, Department of Chemistry, University of Massachusetts, Amherst, MA 01003. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE position available immediately for a cell biologist/molecular biologist to work on a collaborative project led by toxicologist **L. Bjeldanes** and molecular endocrinologist **G. Firestone** to study mechanisms of chemical-mediated growth inhibition of breast tumor cells in culture. Experience with estrogen-dependent breast tumor lines desirable. Deadline for applications is November 1, 1996. Send curriculum vitae and names of two references to: **Dr. Leonard Bjeldanes, Department of Nutritional Sciences, University of California, Berkeley, CA 94720. Email: lfb@nature.berkeley.edu. FAX: 510-642-0535.**

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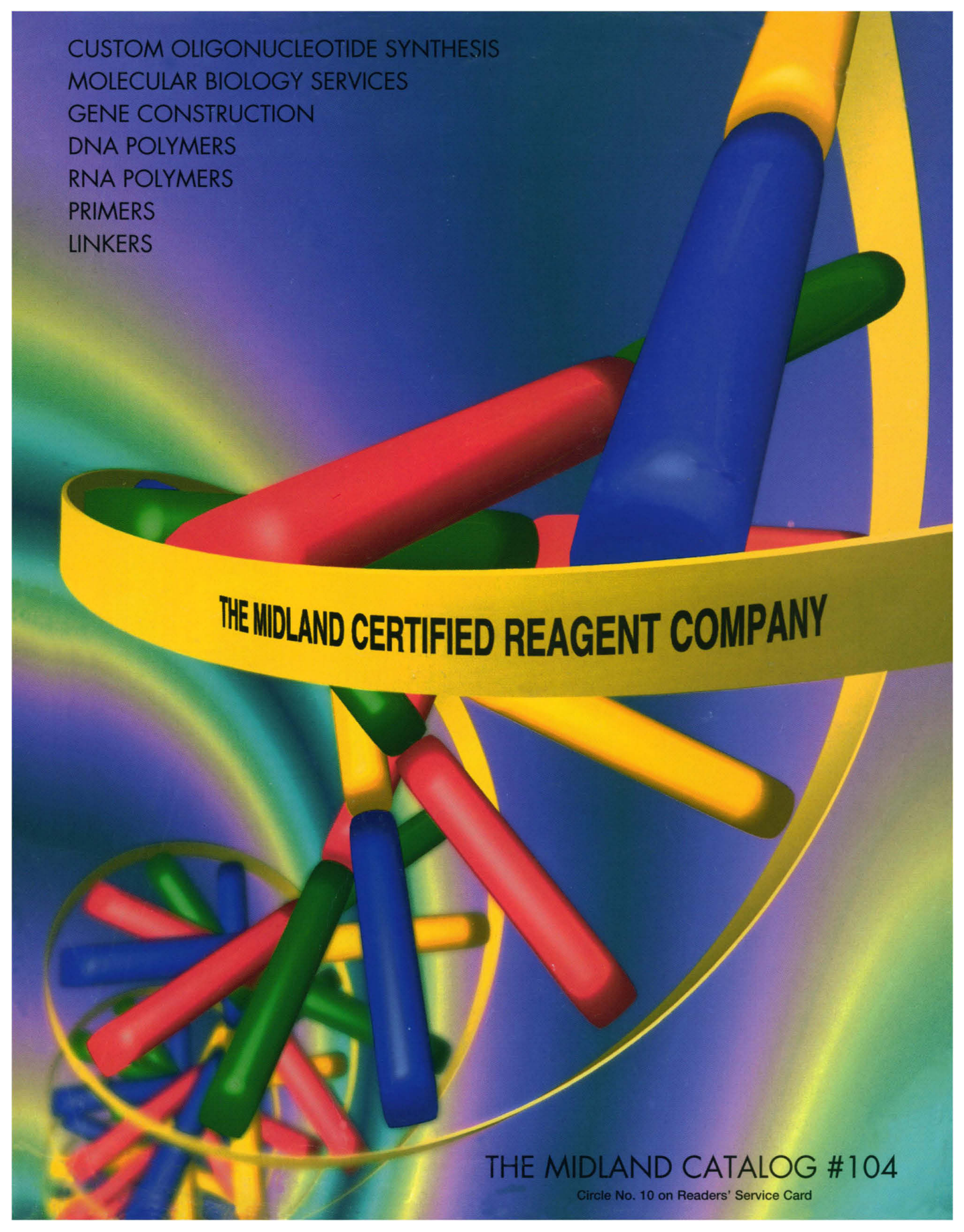
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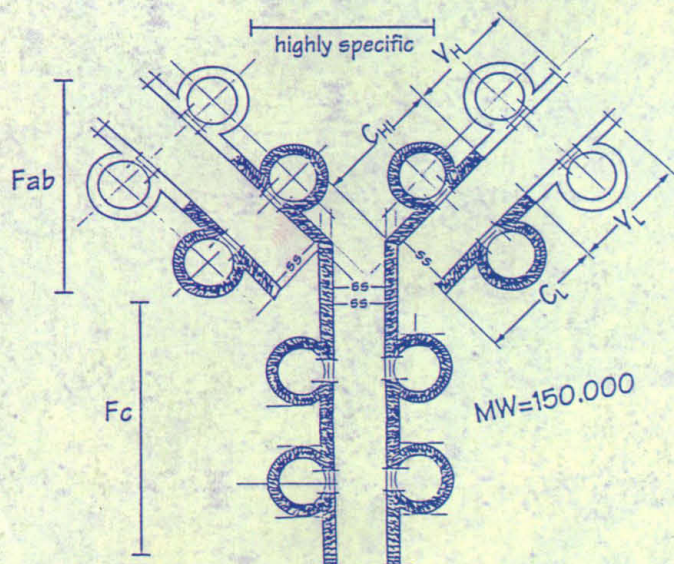
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BUILD YOUR OWN ELISA

WITH MATCHED ANTIBODY PAIRS

R&D Systems is pleased to introduce matched antibody pairs for construction of two site immunoassays. Each pair has been tested for its ability to "sandwich" successfully. The capture antibody is usually a monoclonal antibody. The detection antibody is an antigen-affinity purified goat polyclonal. Both antibodies are purified and tested in the same strict standards as all R&D Systems' reagents.

MONOCLONAL ANTIBODY



Our monoclonal antibodies are purified by protein A affinity chromatography. Many are also suitable for neutralization of bioactivity and western blot applications.

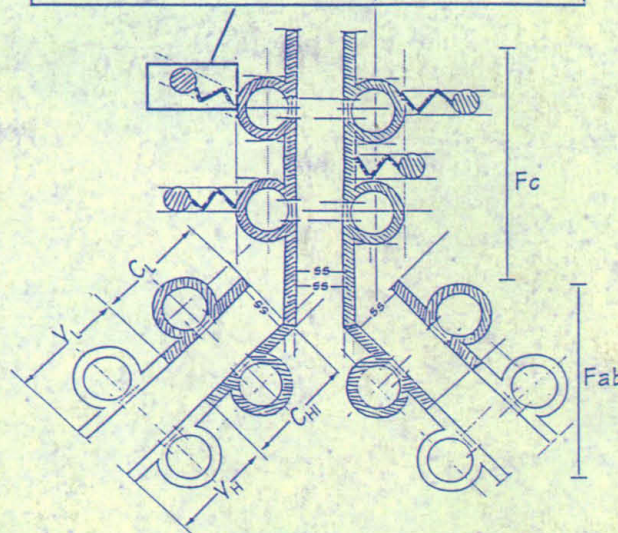
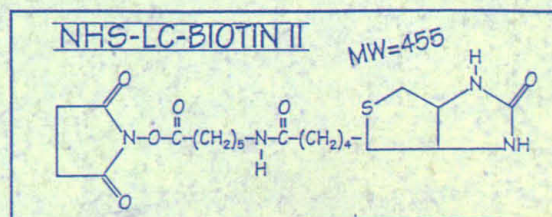
PAIRS ARE AVAILABLE FOR THE FOLLOWING HUMAN ANALYTES

IL-1 β	IL-10	IL-13	MIP-1 β
IL-2	IL-11	IL-15	RANTES
IL-4	IL-12 (p40)	MIF	TNF- α
IL-6	IL-12 (p70)	MIP-1 α	TGF- β 1
IL-8			


LIMITATIONS

A basic understanding of immunoassay development is required for the successful use of these reagents in immunoassays. The protocol provided is for demonstration purposes only. The type of enzyme and substrate and the concentrations of capture/detection antibodies used can be varied to create an immunoassay with a different sensitivity and dynamic range.

BIOTINYLATED POLYCLONAL ANTIBODY



Our polyclonal antibodies are antigen affinity purified and biotin conjugated. These antibodies contain little or no non-specific immunoglobulin. Many of our biotinylated antibodies have been found to be suitable for western blot and immunohistochemistry applications.

For more information on our Matched Antibody Pairs or additional cytokine reagents, visit our website or telephone us.  www.rndsystems.com

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES.

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