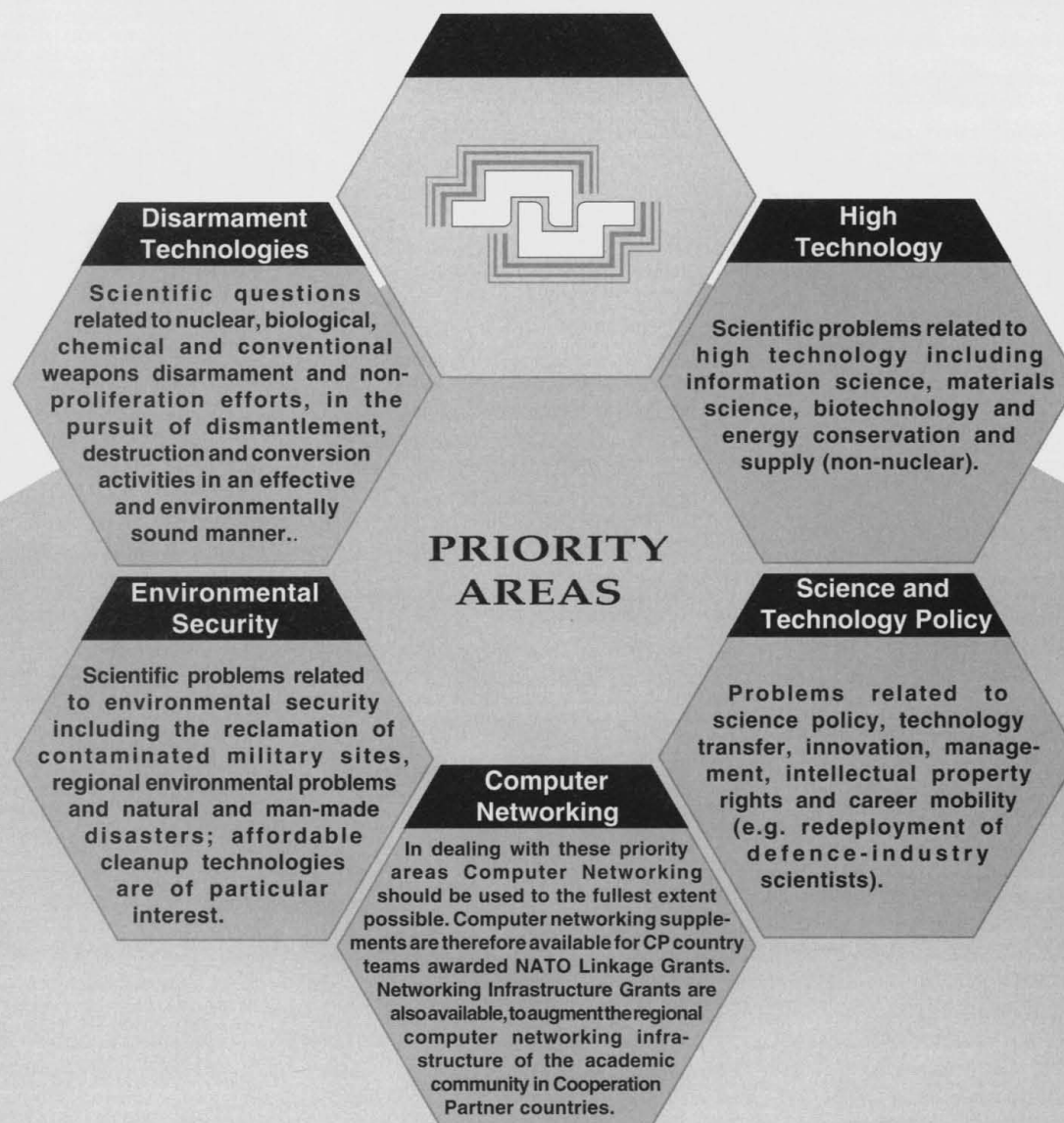


# NATO SCIENCE PROGRAMME

## 1996 CALENDAR OF MEETINGS

The NATO Science Programme provides assistance for scientific collaboration between NATO-country scientists and between NATO-country scientists and scientists in Cooperation Partner (CP) countries (the Commonwealth of Independent States and countries of Central and Eastern Europe).

Support is available for collaboration between NATO-country scientists in any scientific area for Collaborative Research Grants, or to organize Advanced Study Institutes. Support for collaboration between NATO-country and CP-country scientists is **primarily but not exclusively in the Priority Areas** outlined below. The possibilities of support for collaboration between NATO and CP-country scientists are for Collaborative Research Grants, Linkage Grants, Expert Visit Grants, and grants to organize Advanced Research Workshops and Advanced Study Institutes. Further information and application forms for these activities are available from the NATO Scientific Affairs Division at the address below.



Advanced Study Institutes (ASIs) and Advanced Research Workshops (ARWs) to be held in 1996 are given in the following pages. **Each meeting is held under the responsibility of its director(s): all requests for information, attendance or support should be addressed to the contact person listed.** Locations or dates may change. Participation or tuition fees are not required from participants; some participants from NATO countries or Cooperation Partner countries may obtain grants from the meeting director to assist with travel and living expenses. Those wishing to organize ASIs or ARWs should write to the address below for application forms and further information.

Further meetings will be supported during the year and the most recent information on upcoming meetings will be available on the NATO Web (URL: <http://www.nato.int/>) and also on gopher at [gopher.nato.int](mailto:gopher.nato.int). Updates will be posted on 15 May and 16 September.



Scientific Affairs Division (Ref. 96/2)  
NATO, 1110 Brussels, Belgium

# ADVANCED RESEARCH WORKSHOPS

Advanced Research Workshops (ARWs) are working meetings of about four days' duration, where scientists and engineers researching at the frontiers of a subject are able to engage in an intense but informal exchange of views, aiming at a critical assessment of existing knowledge and identification of directions for future action. Attendance at ARWs is mainly by invitation, but a few places are available for particularly well-qualified scientists of all nationalities upon application to the contact person listed below.

## JOINT NATO - COOPERATION PARTNER MEETINGS

### DISARMAMENT TECHNOLOGIES

#### CHEMICAL PROBLEMS ASSOCIATED WITH OLD ARSENICAL AND MUSTARD MUNITIONS

17-19 Mar 1996 : LODZ, POLAND

Contact: Prof. J.E. BUNNETT, UNIVERSITY OF CALIFORNIA, CHEMISTRY DEPT, SANTA CRUZ, CA 95064, USA  
(fax: 408 459 29 35 e-mail: bunnett@chemistry.ucsc.edu.)

Co-Director: Prof. M. MIKOLAJCZYK, POLISH ACADEMY OF SCIENCES, LODZ, POLAND 951038

#### THE TECHNOLOGY OF BIOLOGICAL ARMS CONTROL AND DISARMAMENT

28-29 Mar 1996 : BUDAPEST, HUNGARY

Contact: Mr. M. MOODIE, CHEMICAL AND BIOLOGICAL ARMS CONTROL INST, 2111 EISENHOWER AVE, SUITE 302, ALEXANDRIA, VA 22314, USA  
(fax: 1 703 739 1525)

Co-Director: Mr. T. TOTH, MINISTRY OF DEFENCE, BUDAPEST, HUNGARY 951024

#### CW AGENT NEUTRALIZATION : CHEMICAL AND BIOLOGICAL

##### INTEGRATION FOR AGENT DESTRUCTION

1-3 Apr 1996 : SUZDAL, RUSSIA

Contact: Prof. J.R. WILD, TEXAS A&M UNIVERSITY, BIOCHEMISTRY AND BIOPHYSICS DEPT, COLLEGE STATION, TX 77843-2128, USA  
(fax: 409 845 9274 e-mail: wild@bigraf.tamu.edu)

Co-Director: Prof. A.M. BORONIN, RUSSIAN ACADEMY OF SCIENCES, PUSHCHINO, RUSSIA 941410

#### ASSESSMENT OF MOBILE TECHNOLOGIES FOR REMEDIATING SITES CONTAMINATED WITH CHEMICAL WARFARE AGENTS

6-8 May 1996 : PRAGUE, CZECH REPUBLIC

Contact: Dr. F.V. HOLM, SAIC, 7102 MEADOW LANE, CHEVY CHASE, MD 20815, USA (fax: 1-410 273 1001 e-mail: bill.holm@neteast.com)  
Co-Director: Dr. R. MARKOSOVA, MIN. OF EDUCATION, PRAGUE, CZECH REPUBLIC 951502

#### MICROBIAL DEGRADATION PROCESSES IN RADIOACTIVE WASTE REPOSITORY AND IN NUCLEAR FUEL STORAGE AREAS

9-11 May 1996 : BUDAPEST, HUNGARY

Contact: Dr. J.H. WOLFRAM, IDAHO NATIONAL ENGINEERING LAB, POB 1625, IDAHO FALLS, ID 83415, USA (fax: 208 526 0828)  
Co-Director: Dr. L.G. GAZSO, NATIONAL RESEARCH INST, BUDAPEST, HUNGARY 950446

#### ANALYTICAL CHEMISTRY ASSOCIATED WITH THE DESTRUCTION OF CHEMICAL WEAPONS

19-22 May 1996 : PRAGUE, CZECH REPUBLIC

Contact: Dr. D.J. REUTTER, AMC TREATY LAB., US ARMY, DEPT OF DEFENSE, SCBRD-RT, APG, MD 21010-5423, USA (fax: 410 671 3384)  
Co-Director: Dr. V. STEIN, MILITARY TECHNICAL INSTITUTE OF PROTECTION, BRNO, CZECH REPUBLIC 951490

#### DEFENCE NUCLEAR WASTE DISPOSAL IN RUSSIA : IMPLICATIONS FOR THE ENVIRONMENT

24-26 Jun 1996 : KRASNYYARSK, RUSSIA

Contact: Dr. M.J. STENHOUSE, INTERA INFORMATION TECHNOLOGIES LTD, 47 BURTON ST, MELTON MOWBRAY, LEICESTERSHIRE, LE13 1AF, UK  
(fax: 44 1664 411 402 e-mail: mstenhouse@intera.co.uk)

Co-Director: Prof. V.I. KIRKO, KRASNYYARSK STATE UNIVERSITY, RUSSIA 951432

### ENVIRONMENTAL SECURITY

#### STRATEGIES FOR ENVIRONMENTAL SUSTAINABILITY : LESSONS FROM INTERNATIONAL COOPERATION

24-26 Apr 1996 : MOSCOW, RUSSIA

Contact: Dr. D. DUDEK, ENVIRONMENTAL DEFENSE FUND, 257 PARK AVE SOUTH, NEW YORK, NY 10010, USA (fax: 212 5052375)  
Co-Director: Prof. A. GOLUB, CENTRE FOR ENVIRONMENTAL ECONOMICS, MOSCOW, RUSSIA 950917

#### ATMOSPHERIC DEPOSITION AND FOREST MANAGEMENT

23-26 Apr 1996 : NORTH BOHEMIA, CZECH REPUBLIC

Contact: Dr. G.M.J. MOHREN, INST FOR FORESTRY AND NATURAL RESOURCES, PO BOX 23, 6700 AA WAGENINGEN, THE NETHERLANDS  
(fax: 31 8370 24988 e-mail: g.m.j.mohren@ibn.agro.nl)

Co-Director: Mr. M. CERNY, INST FOR FOREST ECOSYSTEM RESEARCH LTD, DAVLE NAD VLTAVOU, CZECH REPUBLIC 950625

#### QSAR BIODEGRADATION II

2-3 May 1996 : LUHAČOVICE, CZECH REPUBLIC

Contact: Dr. W. PEIJENBURG, NATIONAL INST OF PUBLIC HEALTH, ECOTOXICOLOGY LAB, PO BOX 1, 3720 BA BILTHOVEN, THE NETHERLAND  
(fax: 31-30-251925 e-mail: ecowp@rivm.nl)

Co-Director: Prof. I. HOLOUBEK, MASARYK UNIVERSITY, BRNO, CZECH REPUBLIC 951011

#### THE SCIENTIFIC ENVIRONMENTAL AND POLITICAL ISSUES IN THE CIRCUM-CASPIAN REGION

13-16 May 1996 : ELISTA, KALMYKIA, RUSSIA

Contact: Dr. M.H. GLANTZ, NAT. CENTER FOR ATMOSPHERIC RESEARCH, POB 3000, BOULDER, CO 80307-3000, USA (fax: 1 303 497 8125)  
Co-Director: Dr. I.S. ZONN, UNEP/COM, MOSCOW, RUSSIA 950549

#### CONTROVERSIES BETWEEN WATER RESOURCES DEVELOPMENT AND PROTECTION OF ENVIRONMENT

21-25 May 1996 : BUDAPEST, HUNGARY

Contact: Prof. V. YEYEVICH, 8837 S.B. BLUE MOUNTAIN PLACE, HIGHLANDS RANCH, CO 80126, USA (fax: 303 790 9509)  
Co-Director: Prof. O. STAROSOLSZKY, VITUKI, BUDAPEST, HUNGARY 951017

#### AN INTERNATIONAL DATA-SHARING PROGRAMME FOR THE EFFECTIVE MANAGEMENT OF DANUBE RIVER BASIN RESOURCES

27-30 May 1996 : BUDAPEST, HUNGARY

Contact: Dr. I.L. MURPHY, INT. SCHL FOR WATER RESOURCES, 2005 37TH ST NW, WASHINGTON, DC 20007, USA  
(fax: 1-202 342 64 34)

Co-Director: Dr. P. BAKONYI, VITUKI CONSULT RT, BUDAPEST, 951007

#### CONFLICT AND THE ENVIRONMENT

12-15 Jun 1996 : ZAPOLYARNI, RUSSIA

Contact: Prof. N.P. GLEDITSCH, INTERNATIONAL PEACE RESEARCH INSTITUTE, FUGLEHAUGGATA 11, 0260 OSLO, NORWAY  
(fax: 47 22 55 84 22 e-mail: npg@prio.no)

Co-Director: Dr. R. PERELET, RUSSIAN ACADEMY OF SCIENCES, MOSCOW, RUSSIA 951016

#### RECYCLING, REMEDIATION & RESTORATION STRATEGIES FOR CONTAMINATED CIVILIAN & MILITARY SITES IN THE ARCTIC FAR NORTH

25-29 Jun 1996 : KIRKENES, NORWAY

Contact: Dr. E.J. KIRK, AAAS, PROJECT ON EUROPE AND THE COUNTRIES OF THE FSU, 1333 H ST NW, WASHINGTON, DC 20005, USA  
(fax: 1 202 289 4958 e-mail: ekirk@aaas.org)

Co-Director: Dr. V.N. LYSTSOV, KURCHATOV INSTITUTE, MOSCOW, RUSSIA 951465

#### HISTORICAL AND PREHISTORICAL EARTHQUAKES IN THE CAUCASUS

28 Jun-2 Jul 1996 : YEREVAN, ARMENIA

Contact: Prof. D. GIARDINI, ISTITUTO NAZIONALE DI GEOFISICA, VIA DI VIGNA MURATA 605, 00143 ROMA, ITALY  
(fax: 39 6 504 11 81 e-mail: giardini@in8800.ingrm.it)

Co-Director: Prof. S.Y. BALASSANIAN, NATIONAL SURVEY OF SEISMIC PROTECTION, YEREVAN, ARMENIA 951521

#### SCIENCE AND TECHNOLOGY TO SAVE AND BETTER UTILIZE CENTRAL AND EASTERN EUROPE'S FORESTS

16-20 Jul 1996 : STRAUBING, GERMANY

Contact: Prof. R.M. GUTKOWSKI, COLORADO STATE UNIV, DEPT OF CIVIL ENGINEERING, FORT COLLINS, CO 80523, USA  
(fax: 970 491 7727 e-mail: gutkowski@vines.colostate.edu)

Co-Director: Prof. T. WINNICKI, WROCLAW TECH. UNIV., POLAND 951361

#### INTEGRATED APPROACH TO ENVIRONMENTAL DATA MANAGEMENT SYSTEMS

16-20 Sep 1996 : IZMIR, TURKEY

Contact: Prof. N.B. HARMANCIOLU, DOKUZ EYLUL UNIV., CIVIL ENGINEERING DEPT, BORNOVA 35100, IZMIR, TURKEY  
(fax: 90 232 388 78 64 e-mail: dmuns01@vm.3090.ege.edu.tr)

Co-Director: Dr. N. MIKHAILOV, NATIONAL OCEANIC DATA CENTER, OBNINSK, RUSSIA 951456

#### CONSERVATION OF BIOLOGICAL DIVERSITY AS A PREREQUISITE FOR SUSTAINABLE DEVELOPMENT IN THE BLACK SEA REGION

5-12 Oct 1996 : BATUMI, GEORGIA

Contact: Prof. M. UPPENBRINK, AGENCY FOR NATURE CONSERVATION, KONSTANTINSTRASSE 110, 53179 BONN, GERMANY (fax: 228 849 1250)  
Co-Director: Prof. G. SANADZE, NATIONAL ACADEMY OF SCIENCES, TBLISI, GEORGIA 951472

### HIGH TECHNOLOGY

#### THE PREPARATION OF NANOPARTICLES IN SOLUTIONS AND IN SOLIDS

08-13 Mar 1996 : SZEGED, HUNGARY

Contact: Prof. J.H. FENDLER, SYRACUSE UNIVERSITY, CHEMISTRY DEPT, ROOM 1-014 CST, SYRACUSE, NY 13244-4100, USA  
(fax: 315 443 4869 e-mail: BITNET: cmes@suvvm)

Co-Director: Prof. I. DEKANY, ATTILA JOZSEF UNIVERSITY, SZEGED, HUNGARY 950432

#### EARLY STAGES OF OXYGEN PRECIPITATION IN SILICON

26-29 Mar 1996 : EXETER, UK

Contact: Dr. R. JONES, UNIVERSITY OF EXETER, PHYSICS DEPT, EXETER, DEVON EX4 4QL, UK  
(fax: 44-1392 264111 e-mail: jones@excc.exeter.ac.uk)

Co-Director: Prof. P. DEAK, TECH. UNIV., BUDAPEST, HUNGARY 950709

#### CALIFORNIUM-ISOTOPE FOR 21ST CENTURY RADIOTHERAPY

24-27 Apr 1996 : DETROIT, USA

Contact: Dr. J.G. WIERZBICKI, HARPER HOSPITAL, GERSHENSON RADIATION ONCOLOGY CTR, 3990 JOHN R., DETROIT, MI 48201, USA  
(fax: 1-313 745 2314)

Co-Director: Dr. E. JANULONIS, LITHUANIAN ONCOLOGY CENTER, LILNUS, LITHUANIA 951528

#### ENGINEERING CERAMICS '96

12-15 May 1996 : SMOLENICE, SLOVAK REPUBLIC

Contact: Prof. G.N. BABINI, RES. INST FOR CERAMICS TECHNOLOGY, CNR, VIA GRANAROLO 64, 48018 FAENZA, ITALY  
(fax: 39 546 46381)

Co-Director: Dr. M. HAVIAR, SLOVAK ACADEMY OF SCIENCES, BRATISLAVA, SLOVAK REPUBLIC 950669

#### MICROELECTRONIC INTERCONNECTIONS AND MICROASSEMBLY

19-21 May 1996 : PRAGUE, CZECH REPUBLIC

Contact: Dr. G.C. HARMAN, NATIONAL INST OF STANDARDS AND TECHNOLOGY, 4719 DORSET AVE, CHEVY CHASE, MD 20815, USA  
(fax: 301 975 2128 e-mail: harman@apollo.eeel.nist.gov)

Co-Director: Dr. P. MACH, CZECH TECHNICAL UNIVERSITY, PRAGUE, CZECH REPUBLIC 951423

#### COMPUTER MODELLING OF ELECTRONIC AND ATOMIC PROCESSES IN SOLIDS (SPACE AND ELECTRONIC MATERIALS)

23-26 May 1996 : WROCLAW, POLAND

Contact: Prof. R.C. TENNYSON, UNIV. OF TORONTO, INST. FOR AEROSPACE STUDIES, 4925 DUFFERIN ST, DOWNSVIEW, ONTARIO M3H 5T6, CANADA  
(fax: 416 667 7799 e-mail: rcten@utias.utoronto.ca)

Co-Director: Prof. A.E. KIV, SOUTH-UKRAINIAN PEDAGOGICAL UNIV, ODESSA, UKRAINE 950919

#### PROTECTIVE COATINGS AND THIN FILMS : SYNTHESIS, CHARACTERIZATION AND APPLICATIONS

30 May-5 Jun 1996 : ALVOR, ALGARVE, PORTUGAL

Contact: Prof. Y.M. PAULEAU, NUCLEAR RESEARCH CENTER, CEA, CEREM-DEM-SGSA-LTS, 17 RUE DES MARTYRS, 38054 GRENOBLE CEDEX 2, FRANCE (fax: 33 76 88 51 30)

Co-Director: Prof. P.B. BARNA, RESEARCH INST FOR TECHN PHYSICS, BUDAPEST, HUNGARY 950730

#### POSITRON EMISSION TOMOGRAPHY: A CRITICAL ASSESSMENT OF RECENT TRENDS

Jun 1996 : DEBRECEN, HUNGARY

Contact: Prof. H.W. MUELLER-GAERTNER, FORSCHUNGSZ JULICH GmbH, INST. F. MEDIZIN, 52415 JULICH, GERMANY  
(fax: 49-2461 612 820)

Co-Director: Mr. B. GULYAS, HUNGARIAN ACADEMY OF SCIENCES, DEBRECEN, HUNGARY 951229

#### RELIABILITY ASSESSMENT OF CYCLIC LOADED ENGINEERING STRUCTURES

4-6 Jun 1996 : VARNIA, BULGARIA

Contact: Prof. R.A. SMITH, UNIV. OF SHEFFIELD, DEPT OF MECHANICAL & PROC ENGINEERING, MAPPIN ST, PO BOX 600, SHEFFIELD S1 4DU, UK  
(fax: 44 114 2753671)

Co-Director: Dr. S.B. VODENICHAROV, BULGARIAN ACADEMY OF SCIENCES, SOFIA, BULGARIA 951040

#### BIOLOGY AND BIOTECHNOLOGY OF THE PLANT HORMONE ETHYLENE

9-14 Jun 1996 : CHANIA, CRETE, GREECE

Contact: Dr. A.K. KANELIS, AGRICULTURAL RES. FOUNDATION, INST. OF VITICULTURE & VEGETABLE CROPS, POB 1841, 71110 HERAKLION, CRETE, GREECE  
(fax: 30 81 245858 e-mail: kanelis@nefeli.imbb.forth.gr)

Co-Director: Prof. A.E. KACPERSKA, UNIVERSITY OF WARSAW, 00927 WARSAW, POLAND 950509

#### DEVELOPMENT WITH SUSTAINABLE USE OF ELECTRICITY

17-21 Jun 1996 : KRAKOW, POLAND

Contact: Prof. J.S. NORGARD, TECHN. UNIV. OF DENMARK, PHYSICS DEPT, BLDG 309, 2800 LYNGBY, DENMARK (fax: 45 45 931 669)  
Co-Director: Prof. A. GULA, CENTRE OF KRAKOW, POLAND 951255

#### ERPOS-7: ELECTRICAL & RELATED PROPERTIES OF ORGANIC SOLIDS

18-22 Jun 1996 : POLANICA ZDR, POLAND

Contact: Prof. R.W. MUNN, UMIST, CHEMISTRY DEPT, MANCHESTER M60 1QD, UK  
(fax: 44 161 2004584 e-mail: r.w.munn@umist.ac.uk)

Co-Director: Prof. B. KUCHTA, TECHNICAL UNIVERSITY, WROCLAW, POLAND 951178

#### DIAMOND (AND OTHER WIDE BAND GAP) BASED COMPOSITES

20-21 Jun 1996 : SAINT PETERSBURG, RUSSIA

Contact: Prof. M.A. PRELAS, UNIVERSITY OF MISSOURI, E2435 ENGINEERING BUILDING EAST, COLUMBIA, MO 65211, USA  
(fax: 314 884 4801 e-mail: map@nxtmp.nuclear.missouri.edu)

Co-Director: Prof. V.I. IVANOV-OMSKII, IOFFE PHYSICS AND TECHN INST, ST PETERSBURG, RUSSIA 951247

#### FREE RADICALS IN BIOLOGY AND ENVIRONMENT

21-26 Jun 1996 : BARDOLINO (VR), ITALY

Contact: Prof. F. MINICSI, POLITECNICO MILANO, DIP.DI CHIMICA, V.MANCINELLI 7, 20131 MILANO, ITALY (fax: 02 23993080)  
Co-Director: Prof. G. NIKISHIN, RUSSIAN ACADEMY OF SCIENCE, MOSCOW, RUSSIA 950827

#### HIGH PERFORMANCE COMPUTING : TECHNOLOGY & APPLICATIONS

24-26 Jun 1996 : CETRARO, ITALY

Contact: Prof. J.S. KOWALIK, BOEING COMPANY, INFORMATION & SUPPORT SERV., POB 3707, 7L-44, SEATTLE, WA 98124-2207, USA  
(fax: 1-206 865 2965 e-mail: kowalik@espresso.r.t.cs.boeing.com)

Co-Director: Dr. M. VAJTERSI, SLOVAK ACADEMY OF SCIENCES, BRATISLAVA, SLOVAK REPUBLIC 951434

#### PHYSICS AND MATERIALS SCIENCE OF HIGH TEMPERATURE SUPERCONDUCTIVITY

21-27 Jul 1996 : STRBSKY PLESO, SLOVAK REPUBLIC

Contact: Dr. R. KOSSOWSKY, EMERGING TECHNOLOGIES INC, MATERIALS ENG. & SYS. DIV, 6327 BURCHFIELD AVE, PITTSBURGH, PA 15217, USA (fax: 1 412 421 4342 e-mail: wk02025@worldlink.com)

Co-Director: Prof. I.F. SCHEGOLEV, RUSSIAN ACADEMY OF SCIENCES, CHERNOGOLOVKA, RUSSIA 951039

#### ELECTROMAGNETICS OF CHIRAL, BI-ISOTROPIC AND BIANISOTROPIC MEDIA (CHIRAL '96)

24-28 Jul 1996 : MOSCOW, RUSSIA

Contact: Prof. A. PRIOU, PARIS X UNIVERSITY, DGA/DRET/STRDT, ANTENNAS AND RADAR SYSTEMS DIVISION, 26 BOULEVARD VICTOR, 00460 ARMEES, PARIS, FRANCE  
(fax: 33 1 45 52 65 20)

Co-Director: Prof. A. LAGARKOV, RUSSIAN ACADEMY OF SCIENCES, MOSCOW, 127412 MOSCOW, RUSSIA 951552

## ADVANCED RESEARCH WORKSHOPS (continued)

### LIGHT SCATTERING AND PHOTON CORRELATION SPECTROSCOPY

26-29 Aug 1996 : **KRAKOW, POLAND**

Contact: Prof. E.R. PIKE, KING'S COLLEGE, THE STRAND, LONDON

WC2R 2LS, UK (fax: 171 873 2420/e-mail: erp@uk.ac.kcl.ph.jpg)

Co-Director: Dr. I. YUDIN, OIL & GAS RES INST, MOSCOW, RUSSIA

951505

### REGULATION OF ENZYMIC SYSTEMS DETOXIFYING XENOBIOTICS IN PLANTS

22-28 Sep 1996 : **KALLITHEA, CHALKIDIKI, GREECE**

Contact: Prof. K.K. HATZIOS, STATE UNIVERSITY, POLYTECHNIC INST,

PLANT PATHOLOGY DEPT, PHYSIOLOGY AND WEED SCIENCE,

BLACKSBURG, VA 24061-0330, USA (fax: 703 231 5755)

Co-Director: Dr. T. KOMIVES, HUNGARIAN ACADEMY OF SCIENCES,

BUDAPEST, HUNGARY

950650

### PHYSICS AND APPLICATION OF NON-CRYSTALLINE SEMICONDUCTORS IN OPTOELECTRONICS

15-17 Oct 1996 : **KISHINAU, MOLDOVA**

Contact: Prof. M. BERTOLOTTI, UNIV. OF ROME "LA SAPIENZA",

ENERGETICS DEPT, VIA A. SCARPA 14/16, 00161 ROMA, ITALY

(fax: 396 4270183/e-mail: bertolotti@caspur.bitnet/vm.cnuce.cnr.it)

Co-Director: Prof. A. ANDRIE, ACADEMY OF SCIENCES, KISHINAU,

MOLDOVA

951542

## SCIENCE & TECHNOLOGY POLICY

### SCIENTIFIC AND TECHNOLOGICAL ACHIEVEMENTS RELATED TO THE DEVELOPMENT OF EUROPEAN CITIES

22-24 May 1996 : **KISHINEV, MOLDOVA**

Contact: Prof. G. PARISSAKIS, NATIONAL TECHNICAL UNIVERSITY,

CHEMICAL ENGINEERING DEPT, 9 HERON POLYTECHNIQ STR,

ZOGRAFOU CAMPUS, 15773 ATHENS, GREECE (fax: 30 1 775 87 759)

Co-Director: Prof. S.I. RADAUTSAN, ACADEMY OF SCIENCES, KISHINEV,

MOLDOVA

951519

### MANAGING AND MODELLING COMPLEX PROJECTS

Autumn 1996 : **KYIV, UKRAINE**

Contact: Dr. T.M. WILLIAMS, UNIV. OF STRATHCLYDE, DEPT.

MANAGEMENT SCIENCE, GALSOW G1 1QE, UK (fax: 44-141 552 6686)

Co-Director: Prof. S. BUSHUYEV, KYIV TECH. UNIV., UKRAINE

951491

## OTHER AREAS

### HUMAN DIMENSIONS OF GLOBAL ENVIRONMENTAL CHANGE : A STATE-OF-THE-ART ASSESSMENT OF INTEGRATED RESEARCH FRAMEWORKS

22-26 Apr 1996 : **SINAIA, ROMANIA**

Contact: Prof. M. WATERSTONE, UNIV. OF ARIZONA, GEOGRAPHY DEPT,

TUCSON, AZ 85721, USA (fax: 602 621 2889/e-mail: marwv@ccit.arizona.edu)

Co-Director: Dr. V.N. OANCEA, LAB OF HYDROM NETWORK MANAG,

BUCHAREST, ROMANIA

950440

### CONTRIBUTIONS OF NATIONAL PARKS AND PROTECTED AREAS TO HERITAGE CONSERVATION, TOURISM & SUSTAINABLE DEVELOPMENT

23-27 Apr 1996 : **KRAKOW, POLAND**

Contact: Dr. J.G. NELSON, UNIV. OF WATERLOO, HERITAGE

RESOURCES CTR, BLDG ES1, ROOM 356, WATERLOO, ONTARIO N2L

3G1, CANADA

(fax: 519 746 2031/e-mail: lisa@watservi.uwaterloo.ca)

Co-Director: Dr. R. SERAFIN, POLISH FOUNDATION FOR NATURE

CONSERVATION, KRAKOW, POLAND

951483

### THEORETICAL AND OBSERVATIONAL PROBLEMS RELATED TO SOLAR ECLIPSES

4-8 Jun 1996 : **BUCHAREST, ROMANIA**

Contact: Dr. Z. MOURADIAN, OBSERVATOIRE DE PARIS, DASOP, 92195

MEUDON PRINCIPAL CEDEX, FRANCE

(fax: 33 1 4507 7959/e-mail: mouradian@obspm.fr)

Co-Director: Dr. M. STAVINSCHI, ROMANIAN ACADEMY OF SCIENCES,

BUCHAREST, ROMANIA

950975

### PRIONS AND BRAIN DISEASES IN ANIMALS AND HUMANS

19-23 Aug 1996 : **ERICE, SICILY, ITALY**

Contact: Prof. J. COLLINGE, ST. MARY'S HOSPITAL MED. SCHOOL,

DEPT OF BIOCHEMISTRY & MOLEC. GENETICS, NORFOLK PLACE,

LONDON W2 1PG, UK

(fax: 44 171 7067094/e-mail: f.oliver@ic.ac.uk)

Co-Director: Prof. P. LIBERSKI, MEDICAL ACAD. OF LODZ, POLAND

951509

### BIOLOGICAL FIXATION OF NITROGEN FOR ECOLOGY AND SUSTAINABLE AGRICULTURE

11-13 Sep 1996 : **POZNAN, POLAND**

Contact: Prof. H. BOTHE, UNIV. OF KOLN, BOTANISCHES INSTITUT,

GYRHOFFSTR. 15, 50923 KOLN, GERMANY

(fax: 49 221 470 5181)

Co-Director: Prof. A.B. LEGOCKI, POLISH ACADEMY OF SCIENCES,

POZNAN, POLAND

951457

## GENERAL MEETINGS

## PHYSICS AND ASTRONOMY

### ATOMIC AND MOLECULAR WIRES

5-10 May 1996 : **LES HOUCHEs, FRANCE**

Contact: Prof. C. JOACHIM, CEMES/CNRS, 29 RUE JEANNE MARVIG,

31055 TOULOUSE CEDEX, FRANCE (fax: 33 62 25 79 99) (NANO) 950631

### NANOWIRES

23-27 Sep 1996 : **ALMEIRA, SPAIN**

Contact: Prof. P.A. SERENA, UNIVERSIDAD AUTONOMA DE MADRID,

DPTO DE FISICA DE LA MATERIA CONDENSADA, C-III, CANTOBLANCO,

28049 MADRID, SPAIN (fax: 34 1 397 3961) (NANO) 951436

## CHEMISTRY AND MATERIALS

### PHYSICAL SUPRAMOLECULAR CHEMISTRY

7-10 Jan 1996 : **MIAMI, FLORIDA, USA**

Contact: Prof. L. ECHOGUYEN, UNIVERSITY OF MIAMI, CHEMISTRY

DEPARTMENT, CORAL GABLES, FL 33124, USA

(fax: 1 305 284 4571)

(CHEM) 941404

### BIOLOGICAL ELECTRON-TRANSFER CHAINS : GENETICS, COMPOSITION AND MODE OPERATION

11-15 May 1996 : **LISBON, PORTUGAL**

Contact: Prof. G.W. CANTERS, LEIDEN UNIVERSITY, CHEMISTRY

INSTITUTE, GORLAUS LABORATORY, PO BOX 9502, 2300 RA LEIDEN,

THE NETHERLANDS

(fax: 31 71 274537/e-mail: adfcanter@rulg1.leidenuniv.nl)

(CHEM) 950938

### SELF-ASSEMBLY IN SYNTHETIC CHEMISTRY

16-21 May 1996 : **QUEBEC, CANADA**

Contact: Prof. J.D. WUEST, UNIVERSITE DE MONTREAL, DEPT DE

CHIMIE, MONTREAL, QUEBEC H3C 3J7, CANADA

(fax: 514 343 75 86)

(CHEM) 940786

### MANIPULATION OF ORGANISATION IN POLYMERS USING TANDEM MOLECULAR INTERACTIONS

29 May-2 Jun 1996 : **IL CIOCCO, ITALY**

Contact: Prof. R. ZENTEL, UNIVERSITY OF MAINZ, INSTITUT FUR

ORGANISCHE CHEMIE, BECHER-WEG 18-20, 55099 MAINZ, GERMANY

(fax: 49 6131 395423)

(CHEM) 941342

### NEW METHODS FOR THE STUDY OF MOLECULAR AGGREGATES

23-27 Jun 1996 : **MINAKI, ONTARIO, CANADA**

Contact: Prof. K.G. STANDING, MANITOBA UNIVERSITY,

PHYSICS DEPT, WINNIPEG, MANITOBA R3T 2N2, CANADA

(fax: 204 269-8489/e-mail: standing@cc.umanitoba.ca)

(CHEM) 950903

### CHEMOSENSORS OF ION AND MOLECULE RECOGNITION

1-4 Sep 1996 : **BORDEAUX, FRANCE**

Contact: Prof. A.W. CZARNIK, PARKE-DAVIS PHARMACEUTICAL

RESEARCH, BIOORGANIC CHEMISTRY, 2800 PLYMOUTH RD, ANN

ARBOR, MI 48105, USA

(fax: 313 996 5229/e-mail: czarnia@aa.wi.com)

(CHEM) 950902

## ENVIRONMENTAL AND EARTH SCIENCES

### GRAVITY WAVE PROCESSES AND THEIR PARAMETERIZATION IN GLOBAL CLIMATE MODELS

1-5 Apr 1996 : **SANTA FE, NEW MEXICO, USA**

Contact: Prof. K. HAMILTON, PRINCETON UNIVERSITY, GEOPHYSICAL

FLUID DYNAMICS LABORATORY, POB 308, PRINCETON, NJ 08542, USA

(fax: 609 9875063)

(SGEC) 941308

## ADVANCED STUDY INSTITUTES

Advanced Study Institutes (ASIs) are high-level tutorial courses of two weeks' duration where a subject is treated in depth by lecturers of international standing. Presentations are made to about 100 scientists or research students already specialised in the field, or who have an advanced general scientific background. Attendance at ASIs is open to all suitably-qualified applicants irrespective of nationality, upon application to the contact person listed below.

## JOINT NATO COOPERATION PARTNER MEETINGS

## ENVIRONMENTAL SECURITY

### CYTOTOXIC, MUTAGENIC AND CARCINOGENIC POTENTIAL OF HEAVY METALS INCLUDING METALS RELATED TO HUMAN ENVIRONMENT

15-26 Jun 1996 : **JELENIA GORA, POLAND**

Contact: Prof. N. HADJILIAS, UNIVERSITY OF JOANNINA,

DEPARTMENT OF CHEMISTRY/LABORATORY OF INORGANIC AND

GENERAL CHEMISTRY, JOANNINA, 45110 GREECE

(fax: 3-0651-44831/e-mail: nhadjil@cc.uoi.gr)

Co-Director: Prof. H. KOZLOWSKI, UNIVERSITY OF WROCLAW,

POLAND

950756

### HYDROINFORMATICS TOOLS FOR PLANNING, DESIGN, OPERATION AND REHABILITATION OF SEWER SYSTEMS

16-29 Jun 1996 : **HARRACHOV, CZECH REPUBLIC**

Contact: Dr. J. MARSALEK, NATIONAL WATER RESEARCH

INSTITUTE, 867 LAKESHORE ROAD, BURLINGTON, ONTARIO L7R

4A6 CANADA

(fax: 905 336 4420/e-mail: jjiri.marsalek@cciw.ca)

Co-Director: Dr. E. ZEMAN, CZECH TECHNICAL UNIVERSITY,

PRAQUE, CZECH REPUBLIC

950640

### MINERAL PROCESSING AND ENVIRONMENT: IMPROVING THE QUALITY OF OUR LIFE

18-29 Aug 1996 : **VARNA, BULGARIA**

Contact: Dr. G.P. GALLIOS, UNIVERSITY OF THESSALONIKI,

CHEMISTRY DEPARTMENT, THESSALONIKI, 54006 GREECE

(fax: 30 31 206 138/e-mail: gallios@olym.ccf.auth.gr)

Co-Director: Dr. Z. SADOWSKI, UNIV. OF WROCLAW, POLAND

951013

## HIGH TECHNOLOGY

### AMORPHOUS INSULATORS AND SEMICONDUCTORS

26 May-8 Jun 1996 : **SOZOPOL, BULGARIA**

Contact: Dr. M.F. THORPE, MICHIGAN STATE UNIVERSITY, DEPT. OF

PHYSICS AND ASTRONOMY, EAST LANSING, MI 48824-1116, USA

(fax: 517 353 0690/e-mail: thorpe@pa.msu.edu)

Co-Director: Dr. M.I. MITKOVA, BULGARIAN ACADEMY OF SCIENCES,

SOFIA, BULGARIA

951027

### GENOME STRUCTURE AND FUNCTION

13-23 Jun 1996 : **MARCIANA MARINA, ITALY**

Contact: Prof. C.A. NICOLINI, EL.B.A. FOUNDATION, VIA A. MORO 15, MARCIANA

MARINA 57033 (LI), ITALY (fax: 39 565 901283 e-mail: vakula@ibf.unige.it)

Co-Director: Prof. K.G. SKRYABIN, RUSSIAN ACADEMY OF SCIENCES,

MOSCOW, RUSSIA

951050

### ADVANCED ELECTRONIC TECHNOLOGIES AND SYSTEMS BASED ON LOW-DIMENSIONAL QUANTUM DEVICES

17-28 Sep 1996 : **SOZOPOL, BULGARIA**

Contact: Prof. M. BALKANSKI, UNIVERSITE P&M CURIE, LABO DE

PHYSIQUE DES SOLIDES, 4 PLACE JUSSIEU, TOUR 13/2, 75252 PARIS

CEDEX 05, FRANCE (fax: 33 1 44275896/e-mail: balkan@ccr.jussieu.fr)

Co-Director: Prof. N. ANDREEV, TECH. UNIV, SOFIA, BULGARIA

951271

## OTHER AREAS

### ACTINIDES AND THE ENVIRONMENT

7-19 Jul 1996 : **CHANIA, CRETE, GREECE**

Contact: Dr. P.A. STERNE, LAWRENCE LIVERMORE NAT.LAB., CHEM. &

MAT. SCIENCE, POB 808 L-268, LIVERMORE, CA 94551, USA

(fax: 1-510 422 7300/e-mail: sternel@lnl.gov)

Co-Director: Dr. A.A. BOROVIOI, RUSSIAN RESEARCH CTR., MOSCOW,

RUSSIA

950973

## GENERAL MEETINGS

## LIFE SCIENCES

### NEUROTRANSMITTER RELEASE AND UPTAKE

20-30 Apr 1996 : **KUSADASI, TURKEY**

Contact: Prof. S. POGUN, EGE UNIV, SCHOOL OF MEDICINE,

CENTRE FOR BRAIN RESEARCH, BORNova, 35100 IZMIR, TURKEY

(fax: 90-232 374 6597/e-mail: etifz03@vm3090.ege.edu.tr)

950566

### EXPERIMENTAL AND COMPUTATIONAL APPROACHES IN STRUCTURE BASED DRUG DESIGN

08-19 May 1996 : **ERICE, ITALY**

Contact: Prof. P.W. CODDING, UNIVERSITY OF CALGARY, CHEMISTRY

DEPT, CALGARY, AL T2N 1N4, CANADA (fax: 1-403 2841372)

950402

### VASCULAR ENDOTHELIUM: PHARMACOLOGIC AND GENETIC MANIPULATIONS

22 Jun-1 Jul 1996 : **LIMIN HERSONISSOU, CRETE, GREECE**

Contact: Prof. J.D. CATRAVAS, MEDICAL COLLEGE OF GEORGIA,

PHARMACOLOGY & TOXICOLOGY DEPT, AUGUSTA, GA 30912, USA

(fax: 1-706 721 9799)

951180

### VACCINE DESIGN : THE ROLE OF CYTOKINE NETWORKS

24 Jun-5 Jul 1996 : **CAPE SOUNION, GREECE**

Contact: Prof. G. GREGORIADIS, UNIVERSITY OF LONDON,

CENTER FOR DRUG DELIVERY RESEARCH, 29-39 BRUNSWICK

SQUARE, LONDON WC1N 1AX, UK

(fax: 44-171 753 5820)

950563

### TOPICS IN CELL BIOLOGY FOR THE DEVELOPMENT OF PHYSICAL APPROACHES: FROM CELL TO CENTRAL NERVOUS SYSTEM

8-26 Jul 1996 : **LES HOUCHEs, FRANCE**

Contact: Dr. G. ZACCAI, INST.DE BIOLOGIE STRUCTURALE,

41 AVENUE DES MARTYRS, 38027 GRENOBLE CEDEX 1, FRANCE

(fax: 76/88 54 94/e-mail: zaccai@ibs.fr)

951120

### THE ROLE OF THE HUMAN CORPUS CALLOSUM IN SENSORY/MOTOR INTEGRATION: INDIVIDUAL DIFFERENCES AND CLINICAL APPLICATIONS

10-19 Jul 1996 : **VALENCIA, SPAIN**

Contact: Prof. E. ZAIDEL, UNIV OF CALIFORNIA, PSYCHOLOGY DEPT,

1283 FRANZ HALL, LOS ANGELES, CA 90095-1563 USA

(fax: 310 206 58 95/e-mail: zaidel@psych.sscnet.ucla.edu)

951135

### MOLECULAR MECHANISMS OF SIGNALING AND TARGETING

18-30 Aug 1996 : **ISLAND OF SPETSAL, GREECE**

Contact: Prof. K

## MATHEMATICS

### ALGORITHMS FOR LARGE SCALE LINEAR ALGEBRAIC SYSTEMS : STATE OF THE ART AND APPLICATIONS IN SCIENCE & ENGINEERING

**23 Jun-6 Jul 1996 : GRAN CANARIA, SPAIN**  
**Contact:** Prof. G. WINTER-ALTHAUS, UNIV. OF LAS PALMAS DE GRAN CANARIA, EDIF. DE INGENIERIAS I, CAMPUS UNIVERSITARIO, 35017 LAS PALMAS, SPAIN

(fax: 34 28 451921/e-mail: gabriel@titan.ulpgc.es) 950477

### NONSTANDARD ANALYSIS AND ITS APPLICATIONS

**30 Jun-13 Jul 1996 : EDINBURGH, UK**  
**Contact:** Prof. N.J. CUTLAND, UNIVERSITY OF HULL, DEPT OF PURE MATHEMATICS & STATISTICS, HULL, HU6 7RX, UK

(fax: 44 1482 466218/e-mail: n.j.cutland@maths.hull.ac.uk) 950491

### GRAPH SYMMETRY : ALGEBRAIC METHODS AND APPLICATIONS

**1-12 Jul 1996 : MONTREAL, CANADA**  
**Contact:** Prof. A. DAIGNEAULT, UNIV DE MONTREAL, DEPT MATH & STATISTIQUE, CP 6128, SUCC CENTRE-VILLE, MONTREAL H3C 3J7, CANADA (fax: 514 343 5700/e-mail: daigneau@ere.umontreal.ca) 951435

### OPERATOR ALGEBRAS AND APPLICATIONS

**17-27 Aug 1996 : SAMOS, GREECE**  
**Contact:** Prof. A. KATAVLOS, UNIVERSITY OF ATHENS, MATHEMATICS DEPARTMENT, 15784 ATHENS, GREECE

(fax: 301 724 35 02/e-mail: akatavol@atlas.uoa.gr) 951128

### ALGEBRAIC MODEL THEORY

**19-30 Aug 1996 : TORONTO, CANADA**  
**Contact:** Prof. A. LACHLAN, SIMON FRASER UNIV, DEPT OF MATHS & STATISTICS, BURNABY, BRITISH COLUMBIA V5A 1S6, CANADA

(fax: 604 291 4947/e-mail: allstair@cs.sfu.ca) 951108

### MICROLOCAL ANALYSIS AND SPECTRAL THEORY

**23 Sep-3 Oct 1996 : IL CIOCCO, TUSCANY, ITALY**  
**Contact:** Prof. L. RODINO, UNIV DI TORINO, DIPLO DI MATEMATICA, VIA CARLO ALBERTO 10, 10123 TORINO, ITALY

(fax: 39 0 11 534497/e-mail: rodino@dm.unito.it) 951087

## PHYSICS AND ASTRONOMY

### THEORETICAL CHALLENGES IN COMPLEX FLUID DYNAMICS

**25 Mar-4 Apr 1996 : CAMBRIDGE, UK**  
**Contact:** Prof. T.C.B. MCLEISH, LEEDS UNIV, PHYSICS DEPT, LEEDS LS2 9JT, UK (e-mail: phytocbm@phys-irc.novell.leeds.ac.uk) 950496

### X-RAY AND NEUTRON DYNAMICAL DIFFRACTION : THEORY & APPLICATIONS

**9-21 Apr 1996 : ERICE, ITALY**  
**Contact:** Prof. A. AUTHIER, UNIV P&M CURIE, LABO DE MINERALOGIE-CRISTALLOGRAPHIE, 4 PLACE JUSSIEU, 75252 PARIS CEDEX 05, FRANCE

(fax: 33 1 44 273785) 950418

### HIGH ANGULAR RESOLUTION IN ASTROPHYSICS

**9-19 Apr 1996 : LES HOUCHEs, FRANCE**  
**Contact:** Dr. A.M. LAGRANGE, UNIVERSITE J. FOURIER, LABO D'ASTROPHYSIQUE, BP 53, 38041 GRENOBLE CEDEX 9, FRANCE

(fax: 33 76 44 88 21) 950570

### THE COSMOLOGICAL BACKGROUND RADIATION

**27 May-7 Jun 1996 : STRASBOURG, FRANCE**  
**Contact:** Prof. A. BLANCHARD, UNIV. LOUIS PASTEUR, OBSERVATOIRE DE STRASBOURG, 11 RUE DE L'UNIVERSITE, 67000 STRASBOURG, FRANCE

(fax: 33 8825 0160) 941112

### MICRO/NANOTRIBOLOGY AND ITS APPLICATIONS

**16-28 Jun 1996 : SESIMBRA, PORTUGAL**  
**Contact:** Prof. B. BHUSHAN, OHIO STATE UNIV, MECHANICAL ENGINEER, DEPT. 206 W 18TH AVE, COLUMBUS, OH 43210-1107, USA

(fax: 614 292 0325/e-mail: blushan.2@osu.edu) 950401

### MAGNETIC HYSTERESIS IN NOVEL MAGNETIC MATERIALS

**23 Jun-5 Jul 1996 : RHODES, GREECE**  
**Contact:** Prof. G.C. HADJIPANAYIS, UNIVERSITY OF DELAWARE, PHYSICS AND ASTRONOMY DEPT, NEWARK, DE 19716-2570, USA

(fax: 302 831 1637/e-mail: hadji@straus.udel.edu) 951029

### MESOSCOPIC ELECTRON TRANSPORT

**24 Jun-5 Jul 1996 : SONESTA BEACH HOTEL, CURACAO**  
**Contact:** Prof. G. SCHON, UNIV KARLSRUHE, INST F. THEORETISCHE FESTKORPERPHYSIK, 76128 KARLSRUHE, GERMANY

(fax: 49 721 69850 e-mail: schoen@tfp.physik.uni-karlsruhe.de) (NANO) 951289

### NEW DIRECTIONS IN TERAHERTZ TECHNOLOGY

**1-11 Jul 1996 : BONAS, FRANCE**  
**Contact:** Prof. T. ITOH, UCLA, ELEC. ENG. DEPT, 405 HILGARD AVE, LOS ANGELES, CALIFORNIA 90024-1594, USA (fax: 1 310 206 4819) 950463

### MIXING, CHAOS AND TURBULENCE

**7-20 Jul 1996 : CARGESE, CORSICA, FRANCE**  
**Contact:** Mr. H. CHATE, ECOLE POLYTECHNIQUE, LADHYX, LABORATOIRE D'HYDRODYNAMIQUE, 91128 PALAISEAU CEDEX, FRANCE

(fax: 33 1 69 33 30 30/e-mail: chate@ladhyx.polytechnique.fr) 951167

### TECHNIQUES AND CONCEPTS OF HIGH ENERGY PHYSICS

**10-23 Jul 1996 : ST. CROIX, USA**  
**Contact:** Prof. T. FERBEL, ROCHESTER UNIV, PHYSICS DEPT, ROCHESTER, NY 14627, USA

(fax: 716/275-8527/e-mail: ferbel@urhep.pas.rochester.edu) 950455

### QUANTUM FIELDS AND QUANTUM SPACE TIME

**22 Jul-3 Aug 1996 : CARGESE, FRANCE**  
**Contact:** Prof. G. MACK, HAMBURG UNIV, INST FUR THEORET PHYSIK, LURUPER CHAUSSEE 149, 22761 HAMBURG, GERMANY

(fax: 40 8998 2267/e-mail: i02mac@dsybm.desy.de) 950505

### MASSSES OF FUNDAMENTAL PARTICLES

**5-17 Aug 1996 : CARGESE, FRANCE**  
**Contact:** Prof. M. LEVY, UNIV P&M CURIE, IES/BOITE 230, TOUR 15 - 1ER ETAGE, 4 PLACE JUSSIEU, 75252 PARIS CEDEX 05, FRANCE

(fax: 43 29 82 13/e-mail: polibois@parthe.lpthe.jussieu.fr) 950522

### PROBLEM SOLVING IN COMPUTATIONAL MOLECULAR SCIENCE:

**MOLECULES IN DIFFERENT ENVIRONMENTS**  
**12-22 Aug 1996 : BAD WINDSHEIM, GERMANY**  
**Contact:** Dr. S. WILSON, SERC RUTHERFORD APPLETON LAB, CHILTON, OXFORDSHIRE OX11 0QX, UK

(fax: 44 112 35 44 5808) 951169

### GENERATION AND APPLICATION OF HIGH POWER MICROWAVES

**18-31 Aug 1996 : ST ANDREWS, SCOTLAND, UK**  
**Contact:** Prof. R.A. CAIRNS, ST. ANDREWS UNIV, MATHEMATICAL INST, NORTH HAUGH, ST. ANDREWS KY16 9SS, UK

(fax: 0334 46 3707/e-mail: rac@st-and.ac.uk) 950492

### SURFACE DIFFUSION : ATOMIC AND COLLECTIVE PROCESSES

**26 Aug-6 Sep 1996 : RHODES, GREECE**  
**Contact:** Prof. M.C. TRINGIDES, IOWA STATE UNIVERSITY, AMES LAB, PHYSICS DEPT, AMES, IOWA 50011, USA

(fax: 515 294 0689/e-mail: tringides@ameslab.gov) 950512

### FUNCTIONAL INTEGRATION : BASICS AND APPLICATIONS

**1-14 Sep 1996 : CARGESE, FRANCE**  
**Contact:** Prof. C. DEWITT-MORETTE, TEXAS UNIV, PHYSICS DEPT, CENTER FOR RELATIVITY, AUSTIN, TEXAS 78712-1081, USA

(fax: 512 471 0890/e-mail: cdewitt@utaphy.ph.utexas.edu) 950542

### QUANTUM DOT MATERIALS FOR NONLINEAR OPTICAL APPLICATIONS

**Sep 1996 : BRESSANONE, ITALY**  
**Contact:** Prof. R.F. HAGLUND, VANDERBILT UNIVERSITY, PHYSICS & ASTRONOMY DEPT, NASHVILLE, TN 37235, USA

(fax: 615 343 72 63/e-mail: haglund@ctrvac.vanderbilt.edu) 951019

### CORRELATIONS AND CLUSTERING PHENOMENA IN SUBATOMIC PHYSICS

**5-8 Aug 1996 : DRONTEN, THE NETHERLANDS**  
**Contact:** Prof. M.N. HARAKEH, KERNFYSISCH VERSNELLER INST. ZERNIKELAAN 5, 9747 AA GRONINGEN, NETHERLANDS (fax: 31-50 6 40 03/e-mail: harakeh@kv.nl) 951099

### OPTICAL SPECTROSCOPY OF LOW DIMENSIONAL SEMICONDUCTORS

**9-20 Sep 1996 : ANKARA, TURKEY**  
**Contact:** Prof. G. ABSTREITER, TECH. UNIV. MUNCHEN, WALTER SCHOTTKY INSTITUT, 85748 GARCHING, GERMANY

(fax: 49 89 32082770) 951118

### THE MANY FACES OF NEUTRON STARS

**1-10 Oct 1996 : VULCANO ISLAND, ITALY**  
**Contact:** Dr. R. BUCCHIERI, AREA DELLA RICERCA CNR DI PALERMO, PIAZZA G. VERDI 6, 90138 PALERMO, ITALY

(fax: 39 91 6110141) 950502

### GENERATION OF COSMOLOGICAL LARGE-SCALE STRUCTURE

**3-13 Nov. 1996 : ERICE, SICILY, ITALY**  
**Contact:** Prof. D.N. SCHRAMM, UNIVERSITY OF CHICAGO, DEPT. OF ASTRONOMY AND ASTROPHYSICS, 5640 SO. ELLIS AVE-AAC 140, CHICAGO IL 60637 USA

(fax: 1312 7028212/e-mail: dns@oddjob.uchicago.edu) 951117

## CHEMISTRY AND MATERIALS

### PHYSICAL ADSORPTION : EXPERIMENT, THEORY AND APPLICATIONS

**28 Apr-10 May 1996 : LA COLLE SUR LOUP, FRANCE**  
**Contact:** Prof. J.P. FRAISSARD, UNIV P&M CURIE, LABO DE CHIMIEDES SURFACES/CASE 196, 4 PLACE JUSSIEU, 75252 PARIS CEDEX 05, FRANCE

(fax: 1 4427 5536/e-mail: jfr@jussieu.fr) 950484

### PLASMA TREATMENTS AND DEPOSITION OF POLYMERS

**19 May-2 Jun 1996 : MARATEA, ITALY**  
**Contact:** Prof. R. D'AGOSTINO, BARI UNIV, CHEMISTRY DEPT, VIA ORABONA 4, 70126 BARI, ITALY

(fax: 39 80 544 20 24) 950582

### BIOMOLECULAR STRUCTURE AND DYNAMICS :

**RECENT EXPERIMENTAL AND THEORETICAL ADVANCES**  
**27 May-6 Jun 1996 : LOUTRAKI, GREECE**  
**Contact:** Prof. G. VERGOTEN, UNIV OF SCIENCE & TECHNOLOGY, CHEMISTRY DEPT, CRESIMM, 59655 VILLENEUVE D'ASCO, FRANCE

(fax: 33 20 33 72 79/e-mail: vergoten@pop.univ-lille1.fr) 951177

### RECENT ADVANCES IN POLYMERIC DISPERSIONS

**23 Jun-5 Jul 1996 : NAVARRA, SPAIN**  
**Contact:** Prof. J.M. ASUA, UNIVERSIDAD DEL PAIS VASCO, FACULTAD DE CIENCIAS QUIMICAS, APDO 1072, 20080 SAN SEBASTIAN, SPAIN

(fax: 34 43 212236/e-mail: qpasgoj@sq.ehu.es) 950472

### MASS SPECTROMETRY IN BIOMOLECULAR SCIENCES

**7-18 Jul 1996 : ALTAVILLA MILICIA (PA), ITALY**  
**Contact:** Prof. G. SINDONA, UNIV DELLA CALABRIA, DIPLO DI CHIMICA, 87030 ARCAVACATA DI RENDE (CS), ITALY

(fax: 39 984 49 2044) 951110

### CHEMISORPTION & REACTIVITY ON SUPPORTED CLUSTERS & THIN FILMS: TOWARDS AN UNDERSTANDING OF MICROSCOPIC PROCESSES IN CATALYSIS

**15-24 Jul 1996 : ERICE, ITALY**  
**Contact:** Dr. R.M. LAMBERT, UNIVERSITY OF CAMBRIDGE, DEPT OF CHEMISTRY, LENSFIELD ROAD, CAMBRIDGE CB2 1EW, UK

(fax: 01223 336362/e-mail: rml1@cus.cam.ac.uk) 950478

### MATERIAL ASPECTS OF HIGH TC SUPERCONDUCTIVITY: 10 YEARS AFTER THE DISCOVERY

**19-31 Aug 1996 : DELPHI, GREECE**  
**Contact:** Dr. E. LIAROKAPIS, NATIONAL TECHNICAL UNIVERSITY, PHYSICS DEPT, ATHENS 15780, GREECE

(fax: 0301 778 4541/e-mail: eliaro@central.ntua.gr) 951138

### CRYSTAL ENGINEERING : THE DESIGN AND APPLICATION OF FUNCTIONAL SOLIDS

**8-20 Sep 1996 : DIGBY, NOVA SCOTIA, CANADA**  
**Contact:** Prof. K.R. SEDDON, QUEEN'S UNIVERSITY, SCHOOL OF CHEMISTRY, BELFAST BT9 5AG, UK

(fax: 44 1232 665297/e-mail: chg0023@qub.ac.uk) (CHEM) 950943

## ENVIRONMENTAL AND EARTH SCIENCES

### THE PHYSIOLOGICAL ECOLOGY OF HARMFUL ALGAL BLOOMS

**27 May-6 Jun 1996 : BERMUDA**  
**Contact:** Dr. D.M. ANDERSON, WOODS HOLE OCEANOGRAPHIC INST, BIOLOGY DEPT, WOODS HOLE, MA 02543-1049, USA

(fax: 508 457 2169/e-mail: danderson@whoi.edu) 950532

### THE PHYSICS AND PARAMETERIZATION OF MOIST ATMOSPHERIC CONVECTION

**4-14 Aug 1996 : KLOSTER SEEN, GERMANY**  
**Contact:** Prof. R.K. SMITH, MUNICH UNIV, METEOROLOGICAL INST, THERESIENSTR. 37, 80333 MUNICH, GERMANY (fax: 49 89 23944182 e-mail: roger@server.meteo.physik.uni-muenchen.de) 950481

### SOILS AND GLOBAL CHANGE: CARBON CYCLE, TRACE GAS EXCHANGE AND HYDROLOGY

**9-20 Sep 1996 : BONAS, TOULOUSE, FRANCE**  
**Contact:** Dr. E.A. HOLLAND, NATIONAL CENTER FOR ATMOSPHERIC RESEARCH, 1850 TABLE MESA DRIVE, BOULDER, COLORADO 80303, USA

(fax: 303 497 1477/e-mail: eholland@ncar.ucar.edu) 951136

## APPLIED SCIENCES AND ENGINEERING

### PLASMA PROCESSING OF SEMICONDUCTORS

**17-28 Jun 1996 : BONAS, FRANCE**  
**Contact:** Prof. F. WILLIAMS, UNIVERSITY OF NEBRASKA, ELECTRICAL ENG. DEPT, LINCOLN, NE 68588-0511, USA (fax: 1 402 472 4732) 941117

### CRASHWORTHINESS OF TRANSPORTATION SYSTEMS: STRUCTURAL IMPACT AND OCCUPANT PROTECTION

**7-20 Jul 1996 : TROIA, PORTUGAL**  
**Contact:** Prof. J.A.C. AMBROSIO, IDMEC/IST, AVE ROVISCO PAIS 1, 1096 LISBOA, PORTUGAL (fax: 351 1 84 74 045) 951020

### DESULFORIZATION OF HOT COAL GAS WITH REGENERABLE METAL OXIDE SORBENTS: NEW DEVELOPMENTS

**14-27 Jul 1996 : KUSADASI, IZMIR, TURKEY**  
**Contact:** Prof. A.T. ATIMTAY, MIDDLE EAST TECHNICAL UNIV, ENVIRONMENTAL ENGINEERING DEPT, 06531 ANKARA, TURKEY

(fax: 90 312 210 1260/e-mail: altimtay@orqual.cc.metu.edu.tr) 951126

### MATHEMATICAL METHODS IN PROGRAM DEVELOPMENT

**30 Jul-11 Aug 1996 : MARKTOBERDORF, GERMANY**  
**Contact:** Prof. M. BROY, TECHNISCHE UNIVERSITAET MUENCHEN, INSTITUT F. INFORMATIK, 80290 MUENCHEN, GERMANY

(fax: 89 2105 8183/e-mail: broy@informatik.tu-muenchen.de) 950541

### LOW POWER DESIGN IN DEEP SUBMICRON ELECTRONICS

**12-25 Aug 1996 : IL CIOCCO, ITALY**  
**Contact:** Dr. J. MERMET, IMAGE/ARTEMIS, BP 53, 38041 GRENOBLE CEDEX 9, FRANCE

(fax: 33-76 42 87 87/e-mail: mermet@imag.fr) 951139

### SOFT COMPUTING AND ITS APPLICATIONS

**21-31 Aug 1996 : ANTALYA, TURKEY**  
**Contact:** Prof. O. KAYNAK, BOGAZICI UNIVERSITY, UNESCO CHAIR ON MECHATRONICS, BEBEK, 80815 ISTANBUL, TURKEY

(fax: 90 212 257 5030/e-mail: kaynak@boun.edu.tr) 950564

### LEARNING IN GRAPHICAL MODELS

**27 Sep-7 Oct 1996 : ERICE, SICILY, ITALY**  
**Contact:** Prof. M.I. JORDAN, MIT, DEPT OF BRAIN & COGNITIVE SC., E10-034D, CAMBRIDGE, MA 02139, USA

(fax: 1-617 253 9767) 951174

### SOCIAL AND BEHAVIOURAL SCIENCES BIOSOCIAL BASES OF VIOLENCE: THEORY AND RESEARCH

**12-21 May 1996 : RHODES, GREECE**  
**Contact:** Dr. A. RAINE, S. CALIFORNIA UNIV, SOCIAL SC.RES.INST., LOS ANGELES, CA 90089-1111, USA (fax: 213 740 7778) 940530

### RECOLLECTIONS OF TRAUMA : SCIENTIFIC RESEARCH AND CLINICAL PRACTICE

**15-25 Jun 1996 : PORT DE BOURGENAY, FRANCE**  
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Note: The codes CHEM, SGE, NANO indicate meetings supported under the Special Programmes on Supramolecular Chemistry; Science of Global Environmental Change; and Nanoscale Science.

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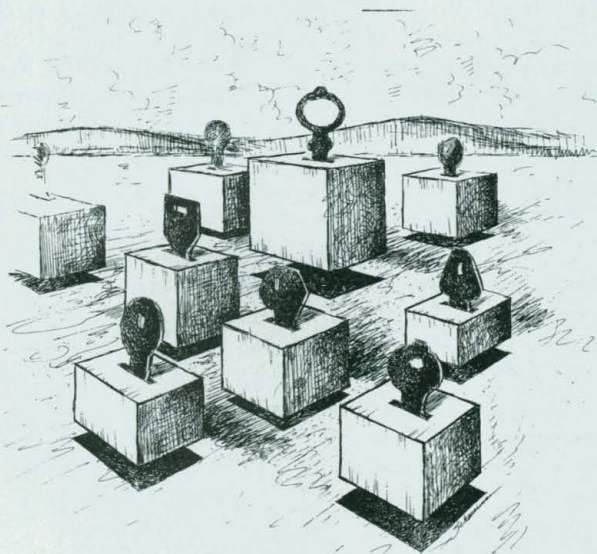
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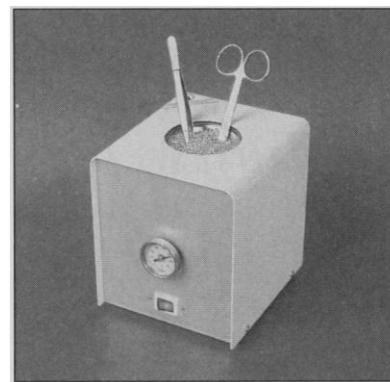
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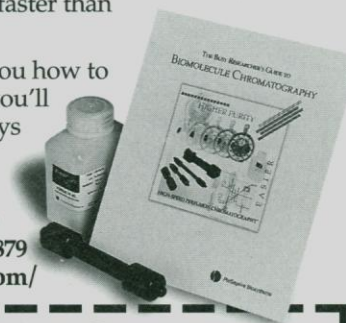
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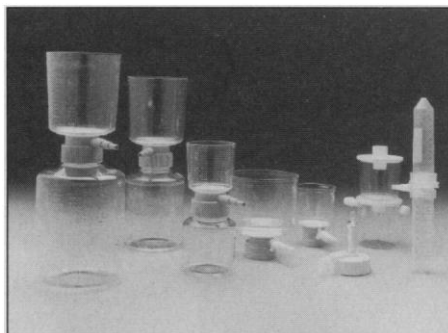
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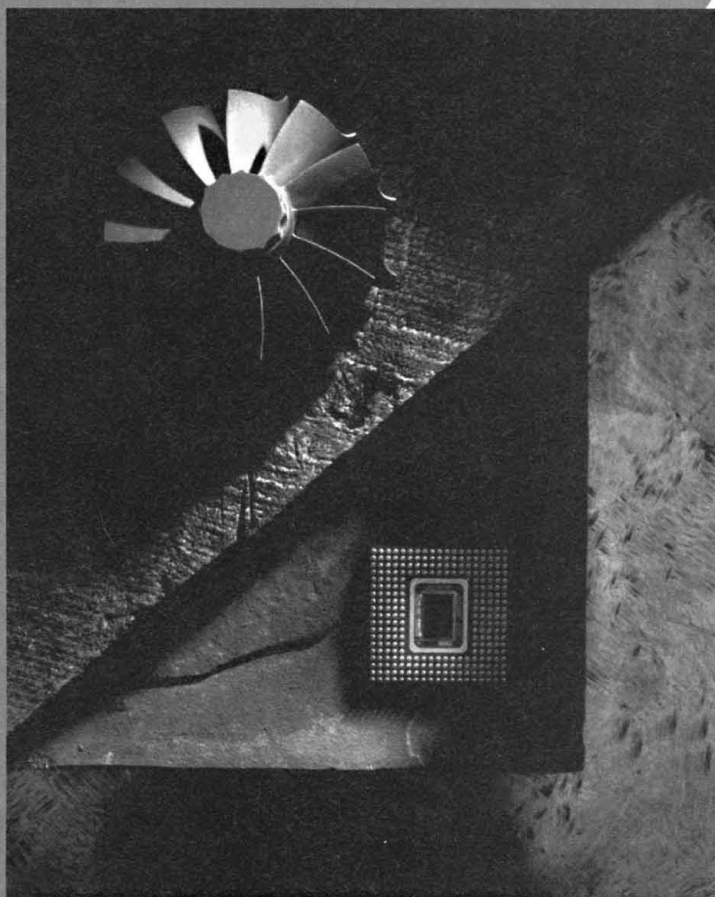
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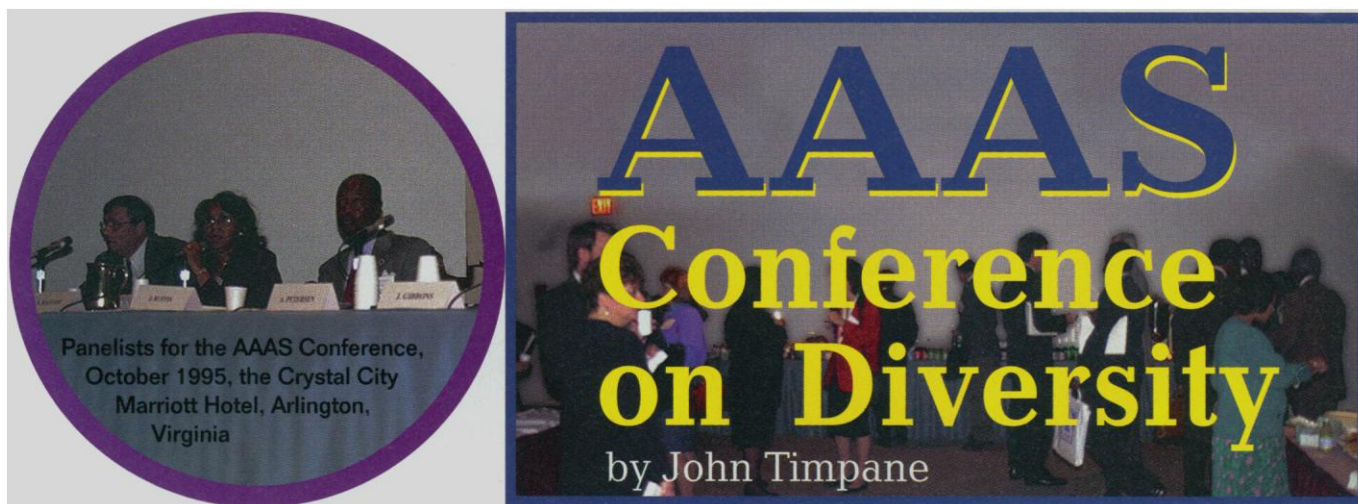


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Arlington, Virginia—"This is a complex issue that will take complex solutions. The problem will be solved, not by women and minorities acting alone, but by everyone, in a concrete networking effort, a new paradigm in which we go to the community and ask them to be partners with us."

Shirley Malcom, head of the directorate for education and human resources programs for AAAS, spoke these words to a gathering of government officials, recruiters, business representatives, and minority scientists. The AAAS-sponsored conference, entitled "Fostering Diversity in the Scientific Workforce in the Pharmaceutical and Biomedical Industries," took place October 26-27, 1995, at the Crystal City Marriott Hotel. The "problem" Malcom referred to is one of the most pressing now facing industrial science: how to recruit and retain minority scientists.

On the first day of the conference, keynote speakers addressed the federal role in promoting diversity in the scientific workforce. The morning of the second day featured three panels: one on the status of minority scientists in the biopharmaceutical industry, another on federal investment in building the science and engineering workforce, and a third on university efforts to set up partnerships with industry. After a gala lunch, the final and much-awaited session focused on the efforts of biopharmaceutical companies to attract and keep minority scientists.

### The Value of Diversity

John Gibbons, assistant to the president for science and technology and director of the White House office of science and technology policy, spoke eloquently of the value of American diversity: "Our diversity creates a talent pool of unprecedented breadth and width. Creativity, the very heart of creativity, comes from merging these differences and having them rub up against one another. That's why we must capture this diversity in its fullest, most positive form, increasing the proportion of women, minorities, and people with disabilities in the work force."

Clearly, the problem is multifaceted and multileveled. Many participants spoke of a situation in which everyone is willing but no one seems networked. Beverly Bujanowski, from the human resources office of Johnson & Johnson, said, "From the perspective of industry, we've made the commitment. We have to, in view of the way our future population base is changing.

Our biggest problem is how do we find these people?" Conversely, one questioner said, "College minority students interested in science can't find the right information—they don't know where the good companies are."

Several speakers addressed the persistence of dropout gaps—the tendency of minority scientists who have completed one degree not to go on to the next. Norman L. Fortenberry, executive director of the National Consortium for Graduate Degrees for Minorities in Science and Engineering (GEM), recited the too-familiar statistics: "While minorities make up 22 percent of the US population and 19 percent of the workforce, that drops to 16 percent of undergraduate enrollment in the sciences, 10 percent of undergraduate degrees, and then between 3 and 4 percent of enrolled graduate students and graduate degrees."

Sheila Pyfrom, associate director for human resources at Bristol-Myers Squibb, spoke of the lack of role models for minority scientists: "Many minority kids have never known anyone in the sciences other than the doctor or the dentist." Speaker after speaker talked of the importance of a mentor at crucial stages of a scientist's career. And once the minority scientist lands the job, there is still considerable resistance to overcome. One working scientist took the microphone to say, "It hurts when you're on the job, doing the science, getting paid, and the person next to you perceives you as someone for whom special corners were cut."

Whatever outreach industry makes, it will have to reach from one culture to another. Norbert S. Hill of the American Indian Science and Engineering Society presented a bracing challenge to the biopharmaceutical industry. "Do you want a handshake or an embrace?" he asked. "Before you even consider recruitment and retention, you must look at the human investment you intend to make. This will be a long-term relationship with people from different contexts and cultures, and if you're not willing to make that investment, there's no relationship there."

Tim Seifritz of Promega Corporation said that industry definitely has a role: "We should work to get students excited about science. Who else is going to show people just how interesting a scientific career could be?" And almost everyone agreed that the time-window for this generation is very narrow. Jean Jackson-Swopes, manager of college relations at Abbott Laboratories, spoke of the need to identify promising minority students as early as possible in the educational process: "If we don't get them between the fourth and seventh grade, they're gone."

*continued...*



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## What Industry Is Doing

Industry and its needs were the focus of the conference, so interest was high when representatives from SmithKline Beecham, Abbott Laboratories, and Bristol-Myers Squibb discussed their companies' efforts to attract and keep minority and women scientists. David Wheadon, vice president and director, CNS/GI, clinical research, development and medical affairs at SmithKline Beecham (SKB), had two messages: one, that SKB and other companies have in place many programs to attract and encourage minority scientists; and two, that all scientists have to accept personal responsibility for their career trajectories.

Like many other companies, SKB has outreach programs with high schools, colleges, and universities. These programs send SKB scientists out to discuss their work with students. Summer internship and cooperative programs give prospective scientists a taste of the work life. Within the company, a mentoring program brings together minority protégés and mentors, who meet five times a year one-on-one. "The satisfaction level is very high with this mentoring process," Wheadon said. "The scientist gains greater insight into the company and his or her place in it, and he or she now has a built-in contact."

In an internal development program open to women and minorities, scientists leave their present jobs and work at another position within the company. They may stay in their new positions as a permanent replacement, if possible, or return to their previous jobs. A diversity council within the R&D department pays the rather high bill for a temporary replacement while the scientist explores the new position.

Accountability is both an extremely controversial issue and an absolute necessity in industry. "Sometimes a system indeed hinders your rise up the ladder—but you also have to accept personal responsibility," Wheadon said. "That translates into realizing that it's not always someone else's fault that you didn't get promoted. You have to ask some serious questions of yourself before you point the finger at someone else. Ask yourself, 'What have I done? What is my role in this? What am I willing to do?'"

Jean Jackson-Swopes of Abbott Laboratories also had two messages: "Our goal is a technically strong, fiercely competitive, and fully diverse workforce" and "We recognize that the future quality of our bench strength will determine our future success." In attaining both goals, recruitment and retention of minority scientists is crucial.

"The question we always get is, 'How did you get started?'" Jackson-Swopes said. In this case, the starting-point was a common-sense one: ask the students. Abbott participated with 13 other companies in a survey of more than 200 college-level minority students interested in science. "We wanted to target the practices that were best attuned to the needs of these students," she said.

Comments were often enlightening. They learned that minority would-be scientists had a poor image of the health care industry in general and knew little about Abbott. They tended not to use job fairs but instead preferred to rely on family, friends, and faculty connections. And they preferred to see minority executives at presentations. A student from Michigan University said, "It shows how you can advance at the company."

By and large, it turned out that these students had practical concerns about company culture and the real status of minority

scientists in industry. As Jackson-Swopes put it, "One of the most frequently asked questions was, 'What's it like to work for your company?'" A UCLA scientist said, "Do minorities get promotions at your company? That's what matters." Many students wanted honesty and openness. One student from Howard University said, "Companies need to be honest about minority representation. Don't give me funny numbers." A student from Spelman College concurred: "Let me see the real minority representation and culture of your company—let me see whether I 'click.'"

To gain access to larger numbers of minority students, Abbott has established a partnership program with historically black colleges and universities (HCBUs). The program, involving most senior level executives at Abbott, has now established significant technical partnerships with 8 HCBUs. Abbott has further sought to strengthen its ties to the minority academic community in general. These efforts included targeting engineering schools with high minority enrollments, becoming sponsors of and advisors to key minority groups and conferences, and participating in key journals targeting minorities for science and engineering careers.

Sheila Pyfrom of Bristol-Myers Squibb (BMS) detailed her company's efforts, alone and in partnership with other companies, to encourage positive role modeling and mentoring, establish cooperative programs, and help minority scientists stay in science. "We became active members in a variety of organizations concerned with minority science," she said. "We got heavily into networking and newsletters. We established an in-company mentoring program."

BMS is using an in-house communications system to make sure that all employees, minorities included, are in touch. An on-line system named CATHY allows people to set expectations for themselves and discuss how to meet those expectations, and another named DAVE helps them quantify their expectations and measure their performance. A third system allows all employees to access any job posting throughout the company. A large number of grants, awards, and stock option plans ensure that employees stay involved in and committed to their work and that the company in turn recognizes excellence.

Community outreach programs send BMS scientists out into the schools to talk about their jobs and working conditions. Internships for minority scientists and medical students, as well as a national minority medical fellowship program, encourage promising careers. BMS is also a major player in the Inroads program, and it has established postdoctoral and graduate student exchange programs.

All these are efforts to attract promising minority scientists and give them a clear sense of their role and importance in the company. Even the face of BMS advertising has changed. "We've put together a series of image advertisements featuring real people with real jobs, including minorities, women, and people with disabilities," Pyfrom said. "These ads deliver two messages: we want as diverse a workforce as we can get, and we know that our people are our greatest asset."

At a spirited question-and-answer session that closed the conference, the same point was made in many ways: the biopharmaceutical industry is doing a great deal to diversify its workforce, and the future of the industry depends on continuing and improving those efforts. As Pyfrom puts it, "We can never say, 'Okay, we've made it, we've reached the goal.' We always need to be taking our own pulse." As David Wheadon of SmithKline Beecham put it, "Retention means not just getting people into the jobs but getting them to be the decision-makers of the next generation."

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**SCIENCE Global Career Network:** Unless otherwise instructed, every classified advertisement submitted for publication in SCIENCE is automatically posted on SCIENCE's on-line classified advertising service, SCIENCE Global Career Network, at no additional charge. SCIENCE Global Career Network address:

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**Mail, FAX or Email materials to:**  
SCIENCE Classified Advertising  
1333 H Street, N.W., Room 814  
Washington, DC 20005  
FAX: 202-289-6742

Internet Email: [science\\_classifieds@aaas.org](mailto:science_classifieds@aaas.org)  
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SCIENCE reserves the right, at its discretion, to edit or decline to publish advertisements submitted to it.

## PRINCIPAL RESEARCH BIOLOGIST

**Your clinical research skills  
will help us bring new products to market.**

At Unilever, commercial success begins with a commitment to innovation and integrity in scientific research. Since 1902, this commitment has resulted in a steady stream of innovative products and an environment where there is continual challenge to enhance and improve some of the world's best known brands.

As we plan for the future, we are seeking a Biologist to play a key role in supporting our efforts in the development of new personal wash products. We'll look to you to develop standardized clinical methods for evaluating skin benefits delivered from skin cleansers; establish clinical methodologies for determining efficacy; identify new technologies and techniques, and coordinate the execution and analysis of internal and external clinical studies.

To qualify, you should possess a PhD in the biosciences, preferably with some experience in skin and/or clinical research, but we will consider candidates with a related BS or MS and proven skin research experience. As a leader, you will also be expected to bring with you the motivation and training skills necessary to establish a research team which provides significant advances in personal washing clinical research.

If you're looking for a company committed to seeking out new ideas, new products and new ways of thinking, we invite you to consider Unilever Research. For more information, forward your resume to: Ms. Jane Goodwin, Human Resources, Unilever Research U.S., 45 River Road, Edgewater, NJ 07020. We are an equal opportunity employer.



**Unilever**

Unilever Research U.S.

*Full page recruitment advertisements in the special  
advertising supplement in this issue of SCIENCE  
begin on page 537.*

## AAAS Conference on Diversity: Biomedical and Pharmaceutical Industries

Abbott Laboratories page 541

Bristol-Myers Squibb page 539

Oak Ridge National Laboratory page 537

# SCIENCE

# P PATHOGENESIS

PathoGenesis Corporation is dedicated to the discovery, diagnosis and treatment of infectious agents associated with chronic disease. Our Molecular Microbiology department is currently seeking a full-time

## Senior Research Associate or Postdoctoral Scientist

### Job Description:

- Work involves development of novel molecular approaches to identify new drug targets with the aim of developing new compound screening assays for important bacterial pathogens.
- Duties could also include *in vivo* studies with infectious bacteria.

### Requirements:

- Experience with gram positive genetics including transformation, transduction, transposition, allelic replacement and other molecular methods, particularly on the mycobacterium *Staphylococci* or *Streptococci*, is highly desired.
- Qualified candidate will join a multidisciplinary group working in laboratories specifically designed to support this research effort.

### For More Information

PathoGenesis is an innovative company located on the Seattle waterfront and offers competitive salaries plus a benefits program that includes insurance and stock options. Send, fax or e-mail your resume to:

PathoGenesis Corporation  
201 Elliott Avenue West, Suite 150  
Seattle, WA 98119  
FAX: (206) 270-3330

EMAIL: [jduggan@bart.path.com](mailto:jduggan@bart.path.com)

PathoGenesis is an Equal Employment Opportunity Employer

# Research Associate Reproductive Toxicology

Sanofi Winthrop, Inc. is a major multinational developer and marketer of ethical pharmaceuticals. The Sanofi Research Division (SRD) is dedicated to the development of innovative new therapies, and we anticipate significant future growth within the industry. We currently have an opportunity available at our suburban Philadelphia facility for a Research Associate.

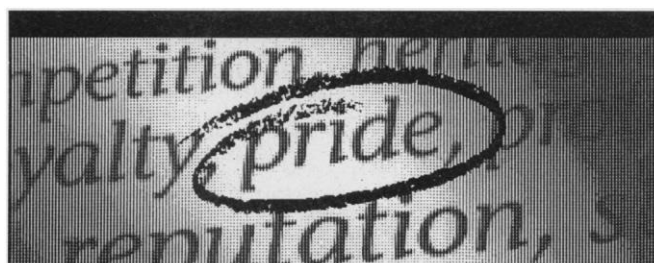
The successful candidate will assist the Assistant Research Director in designing, conducting, and reporting toxicology studies as well as managing/administering the Reproductive Toxicology section. You will also participate in as well as act as the Study Director/Monitor for GLP reproductive toxicology studies in support of the toxicological evaluation of SR Compounds.

Requirements include a Ph.D. with 6 months - 2 years, M.S. with 4-6 years, or B.S. with 8-10 years Reproductive Toxicology Industry or related experience.

At Sanofi Winthrop, you'll enjoy a highly competitive salary and benefits package. For confidential consideration, forward your resume and salary requirements to:

Human Resources, Position #V039/95/JRC  
Sanofi Winthrop, Sanofi Research Division  
9 Great Valley Parkway, P.O. Box 3026, Malvern, PA 19355  
Equal Opportunity Employer, M/F/D/V.

sanofi  WINTHROP



## Another ingredient of a great career.

All the right elements in combination make for great careers labeled "the best." At Miller Brewing Company, one essential ingredient is pride. Our people take pride in every facet of what we do. In our exceptional products. In an environment that is supportive and at the same time challenging. In a work force that is diverse, talented and driven always towards quality. It's a feeling shared by everyone at Miller. Now we'd like you to be a part of our pride. If you have the ingredients to feel right at home, join us.

## RESEARCH SCIENTIST

### Yeast Physiology

We are searching for a creative research scientist who will provide expertise in yeast physiology and fermentation. The selected candidate will participate in designing and conducting laboratory and pilot scale experiments related to fermentation performance, novel fermentations, capacity improvement, process flexibility, and product quality. You will be a member of a dynamic, self-directed work group in Yeast Physiology and Fermentation.

The successful candidate must possess expertise in yeast physiology and fermentation as it relates to the brewing industry (i.e. amino acid, carbohydrate metabolism, and anaerobic fermentations). Three to five years of research experience is required. A knowledge of brewing is desired and computer literacy is essential. Emphasis will be placed on communication and interpersonal skills and the ability to work in a team-based research environment.

If you have the ingredients to succeed here, send your resume for consideration to: Miller Brewing Company, Corporate Staffing, Dept. SB/SM22, P.O. Box 482, Milwaukee, WI 53201-0482.



**Miller.**

Miller welcomes diversity's potential for excellence, and encourages interest from all candidates. EOE, M/F/D/V.

## NEW ENGLAND BIOLABS Positions Available

New England Biolabs, a world leader in the production of restriction endonucleases and other related products for the recombinant DNA field, seeks applicants for:

**Phospho-Antibody Development:** Responsibilities include characterization and development of phospho-specific antibodies. Minimum requirements include a B.S. or M.S. in Molecular Biology/Biochemistry. Experience in antibody characterization, western blotting, ELISA and production of proteins in mammalian cells is essential. Send a resume and three references to: Dr. Michael Comb, Cell Signaling Laboratory.

**Research Associate:** At least 2 years' experience in Molecular Biology, a B.S. or M.S. in Biochemistry/Physical Chemistry and experience in protein purification and characterization are essential. Send a resume and three references to: Dr. Chudi Guan, Dept. of Molecular Biology.

NEB offers competitive salaries, benefits and a bonus plan.

New England Biolabs, Inc.  
32 Tozer Road  
Beverly, MA 01915

An Equal Opportunity Employer





**Executive Director  
Foundation for Research Development of the  
Medical University of South Carolina**

A new position is available for a scientist-entrepreneur manager to direct the recently established MUSC Foundation for Research Development, a not-for-profit corporation designed as an innovative and flexible foundation to enhance research on the MUSC campus. This includes development of new relationships between the Medical University of South Carolina (MUSC) and businesses, corporations and other agents of entrepreneurship and economic development. Located in historic Charleston with convenient access to major business and financial centers on the East Coast, MUSC is South Carolina's only free-standing academic health center, with over 1000 full-time faculty on campus and a \$66 million per year biomedical research program. The mission of the MUSC Foundation for Research Development is to:

- support the research mission of MUSC by fostering creativity and innovation
- initiate and sustain cooperation and collaboration between MUSC and business and industry
- act as an intellectual property management and technology transfer and marketing arm for MUSC
- advance health-related economic development in South Carolina and the nation

**Responsibilities:** The Executive Director reports to the Board of Directors of the Foundation for Research Development. He or she is responsible for developing and implementing an aggressive and comprehensive strategic plan. The plan will include a program for expanding effective relations with potential private sector sponsors, linking potential sponsors with university researchers, marketing existing technologies, evaluating and creating action plans for university-based inventions and technology developments, developing networks to increase faculty-industry linkages, negotiating, signing and managing agreements with industry that optimize the position of the university, and counseling faculty and staff on principles involved in negotiating with industry and agents of free enterprise and entrepreneurship. It is anticipated that the range of foundation activities will include licensing, facilitating the start-up of new companies, coordinating the development of incubator space, and interfacing with potential sources of venture capital.

An important aspect of the job is to manage and moderate the inherent differences between academic and commercial values, educating both sides in the process.

**Qualifications:** Preferred qualifications are an appropriate combination of the following: Advanced degree in an area of the physical or life sciences, an MBA or equivalent, significant experience in a business or academic setting, significant experience in technology or invention evaluation and licensing, experience with start-up companies or venture capital, familiarity with patents and patent management. All candidates must have exceptional oral/written communications and interpersonal skills. Personal experience in biomedical technology transfer and/or start-up management is essential.

**Salary:** Commensurate with education and experience, with opportunity for incentive income.

**Application:** The deadline for receipt of applications for this position is **March 15, 1996**. Candidates should submit a letter of application and a curriculum vitae, along with the names, addresses and phone numbers of at least three references to: **John N. Vournakis, Ph.D., Chair, Search Committee, Foundation for Research Development, Medical University of South Carolina, Hollings Cancer Center, Room 334, 171 Ashley Avenue, Charleston, SC 29425, Tel: 803-792-1484 Fax: 803/792-3940**

## SENIOR STAFF SCIENTIST

A position(s) is available immediately for a senior staff scientist for the design and development of recombinant vaccines for cancer immunotherapy, in the Laboratory of Tumor Immunology and Biology (Dr. Jeffrey Schlom, Chief), National Cancer Institute, National Institutes of Health, PHS, Bethesda, MD. Non-replicating and replicating pox viruses as well as other vectors are being employed to induce specific T-cell responses to oncogene and tumor associated gene products, both in experimental systems and in clinical trials. Studies also involve the construction of recombinant vaccines expressing multiple gene products. **A background in molecular biology/virology is required.** This is an appointment for two years with an option for renewal for two additional years. Salary range is \$60,925 to \$93,166. If interested, please call Nancy Bagley (301) 496-1771 to request the mandatory application/CV requirements for position #CA-95-0233.

NIH is an Equal Opportunity Employer



## Vice Provost for Research

The University of Pennsylvania invites applications and nominations for the position of Vice Provost for Research. The Vice Provost is responsible to the Provost for the development and implementation of policies and procedures that promote excellence in research across the University. In this capacity the Vice Provost explores potential new areas for research and oversees long-range planning efforts with respect to research and to facilities and support at the University, advises the Provost on all such efforts, provides leadership and coordination of multi-disciplinary research programs, and represents Penn to federal and other funding agencies. The Vice Provost is responsible for administering and coordinating a wide variety of activities supporting research at Penn, including the Provost's Council on Research, the Research Foundation, and the Research Facilities Development Fund. In addition, the Vice Provost has direct supervisory responsibility for five administrative entities: the Office of Research Administration, the Center for Technology Transfer, the University Laboratory Animal Resources, the Office of Radiation Safety and the Office of Environmental Health and Safety.

Candidates for the position must have a strong record of research and scholarship sufficient to merit appointment as a full professor in an academic department of the University, knowledge of the operations and practices of a comprehensive research-oriented university, and proven administrative competence.

The position is available in July, 1996. Applications should include a curriculum vitae and other information which will help the search committee in evaluating the application. The review of applications will begin February 1, 1996. All nominations, applications, and supporting materials should be mailed to:



**Vice Provost for Research Search Committee  
Office of the Provost  
University of Pennsylvania  
110 College Hall  
Philadelphia, PA 19104-6303.**

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

## POSITIONS OPEN

### MOLECULAR VIROLOGIST

A tenure-track (ASSISTANT OR ASSOCIATE PROFESSOR) position is available for a broadly trained Ph.D. with demonstrated expertise in molecular virology. While the specific area of research is open, the development of an independent research program focused on poultry viruses or a member of a viral family which includes important poultry pathogens is required. Applicants at the Associate Professor level must have an established research program with evidence of external research support. The successful applicant will be expected to actively participate in the training of graduate and undergraduate students. Competitive salary and start-up. Candidates must submit a letter of application, current curriculum vitae with bibliography, transcripts, statement of proposed research, statement of graduate and undergraduate education philosophy, and three letters of reference. Review of applications will begin March 4, 1996 and continue until a suitable candidate is identified. For information contact: Gisela Erf, Ph.D. at Telephone: 501-575-8664 or Email: gferf@comp.uark.edu. All materials should be sent to:

Molecular Virology Search Committee  
Dr. James Denton, Head  
Department of Poultry Science, Room 0114  
University of Arkansas  
Fayetteville, AR 72701

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

### TENURE-TRACK ASSOCIATE ASSISTANT PROFESSOR Human Molecular Genetics

The Department of Human Genetics at the Medical College of Virginia/Virginia Commonwealth University is currently seeking applications for a tenure-track position at the rank of ASSOCIATE/ASSISTANT PROFESSOR. The successful candidate will be expected to establish and direct an independent research program in human molecular genetics and to participate in the teaching activities of the Department. The candidate must hold a doctoral degree and must have at least two years of postdoctoral training and research experience in the relevant area. Interested candidates should send curriculum vitae, three letters of reference, and a description of their research interest by April 30, 1996 to: Dr. Barry Wolf, Search Committee Chair, Department of Human Genetics, Medical College of Virginia/Virginia Commonwealth University, P.O. Box 980033, Richmond, VA 23298-0033.

*Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer. Women, minorities and persons with disabilities are encouraged to apply.*

### MICROBIOLOGY Assistant Professor (Tenure-Track)

The Department of Microbiology at the Medical College of Ohio invites applications for a tenure-track, full-time position at the ASSISTANT PROFESSOR level. Applicants should have a doctoral degree, postdoctoral experience, and a record of research productivity. The successful candidate will be expected to teach and develop an independent research program in immunology related to host response to infection, which could include vaccine development. Competitive salary, space, and start-up funds will be provided. Applicants should send a statement of research goals, a curriculum vitae, and have three letters of recommendation forwarded to: Garry T. Cole, Ph.D., Chairman, Department of Microbiology, Medical College of Ohio, 3000 Arlington Avenue, Toledo, OH 43699-0008. Deadline is February 29, 1996. *Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT PROFESSOR.** Community/Systems Plant Ecologist. The Department of Biological Sciences at Florida Atlantic University invites applications for a tenure track position. Particular interest will be shown to marine/freshwater plant ecologists. Teaching duties will include both undergraduate and graduate courses. The Department currently offers degrees through the Masters level. Applicants should send résumé, pertinent reprints, a statement of teaching and research interests and the names of three references to: Dr. Alex Marsh, Department of Biological Sciences, Florida Atlantic University, Boca Raton, FL 33431-0991. The closing date will be March 4, 1996. *Florida Atlantic University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN



### FRIEDRICH MIESCHER INSTITUTE Junior Group Leader Position in Plant Cell and Molecular Biology

Applications are invited for a **TENURE-TRACK POSITION** in plant cell and molecular biology to begin in January 1997. Candidates should have postdoctoral experience in the plant sciences and demonstrate the ability to develop a vigorous, independent research program focussed on molecular signaling in plants. Possible topics include, but are not limited to, growth regulation, molecular physiology, cell-to-cell communication, and plant-microbe interactions. The successful candidate will be expected to lead a group consisting of postdoctoral fellows, graduate students, and technical staff. The Friedrich Miescher Institute is a foundation devoted to basic research in the area of cell and molecular biology of both plants and animals. It offers excellent facilities in a stimulating scientific environment. Applications including curriculum vitae, list of publications, a description of present research and research plans, and three letters of recommendation should be sent to: Dr. Werner Reber, Friedrich Miescher Institute, P.O. Box 2543, CH-4002 Basel, Switzerland by April 1, 1996.

### FACULTY POSITION IN PROSTATE CANCER RESEARCH

The University of Iowa, Department of Urology is seeking to fill an endowed **PROFESSORSHIP** to participate in a research program on prostate cancer. The individual will join the University of Iowa's Prostate Cancer Research Program. The applicant must hold the Ph.D. or M.D. degree or both with a demonstrated expertise in molecular biology and the use of molecular biological and/or genetic techniques that can be applied to problems in prostate cancer research. The applicant will be an established investigator with current peer-reviewed support and a record of publications in quality journals. To be considered, the applicant must be willing to extend his or her research to prostate cancer.

The investigator will be expected to develop and maintain a high quality research program in prostate cancer, to collaborate with other faculty in the area, and to participate in teaching of students, fellows, and residents.

Interested individuals should forward a letter, curriculum vitae, a statement of research interests, and the names of three references to: Andersen-Hebbeck Prostate Cancer Research Professorship Search Committee, c/o David M. Lubaroff, Ph.D., 423 MRC or c/o Gary Koretsky, M.D., Ph.D., 540 EMRB, 200 Hawkins Drive, Iowa City, IA 52242-1089.

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

### ASSISTANT, ASSOCIATE FULL PROFESSOR Biochemistry/Molecular Biology

The Department of Biochemistry at the F. Edward Hébert School of Medicine, Uniformed Services University of the Health Sciences (USUHS) in Bethesda, Maryland, invites applications for **TWO FULL TENURE-TRACK FACULTY POSITIONS** available in 1996. Outstanding candidates in the areas of biochemistry, molecular and cell biology are encouraged to apply. Candidates at the Assistant Professor level must have postdoctoral experience and will be expected to develop a vigorous basic research program. Applicants for Associate/Full Professor should have an ongoing extramurally funded research program, and have teaching experience. The successful candidates will participate in training of students in medical school and in a graduate program. Please send curriculum vitae, reprints of three to five recent publications, a one page statement of future research plans, and the names of at least three preferred references by March 15, 1996, to: Department of Biochemistry, Search Committee, Uniformed Services University of the Health Sciences, F. Edward Hébert School of Medicine, 4301 Jones Bridge Road, Bethesda, MD 20814-4799. *Foreign nationals will only be considered if qualified United States citizens are not available. USUHS is an Equal Opportunity Employer with a strong commitment to racial, cultural, and ethnic diversity.*

## POSITIONS OPEN

### UNIVERSITY OF ILLINOIS AT CHICAGO COLLEGE OF MEDICINE DIRECTOR

#### Immunobiology Initiative/Program

Applications are invited for the position of **DIRECTOR** of a new program in immunobiology within the College of Medicine of the University of Illinois at Chicago. Candidates for this position should possess the Ph.D. and/or M.D. degree, a distinguished record of scholarly activity and a nationally recognized research program in immunobiology. The candidate should also have the ability to administer and foster interdisciplinary research endeavors with both basic and clinical scientists. The University and College of Medicine will commit considerable resources to this initiative as part of its strategic planning process. The incumbent will have the opportunity to plan and develop the program inclusive of the remodeling of new space, equipment acquisition, and the recruitment of additional faculty and key personnel. The nationally respected animal Biological Resources Facility as well as a newly constructed 150,000 square foot Molecular Biology Facility will be integral components of the research program. The Director will be appointed at an appropriate faculty rank.

Interested individuals should submit a letter of application and a curriculum vitae which includes a summary of their research program and accomplishments to:

Raymond Pollak, M.D., Chair  
Immunobiology Program Search Committee  
Professor and Chief  
Division of Transplantation  
University of Illinois at Chicago  
801 South Paulina, Room 411 (M/C 960)  
Chicago, IL 60612

*University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### THE UNIVERSITY OF KANSAS-LAWRENCE

The Department of Pharmaceutical Chemistry (Pharmaceutics), School of Pharmacy, invites applications and nominations for the Takeru and Aya Higuchi Distinguished **PROFESSORSHIP**. Applicants should be nationally and internationally recognized scholars in pharmaceutics or a related scientific discipline whose research programs directly impact on the formulation, delivery, and development of drugs to treat human diseases particularly in the elderly. Candidates must also have a doctorate degree in pharmaceutics or a related discipline; a reputation of scholarly achievement and academic leadership sufficient to qualify for the rank of **DISTINGUISHED PROFESSOR**; evidence of the ability to secure financial resources to support their research program; and a strong commitment to excellence in both undergraduate and graduate education. Applications will be accepted until the position is filled. Screening of applications will begin March 1, 1996. A full job description is available upon request. Applications, including a letter of interest, names and addresses of three references, or nominations should be submitted to: Dr. Ronald T. Borchardt, Department of Pharmaceutical Chemistry, 2095 Constant Avenue, The University of Kansas, Lawrence, KS 66047. *The University of Kansas is an Equal Opportunity/Affirmative Action Employer.*

### EAST CAROLINA UNIVERSITY SCHOOL OF MEDICINE

The Department of Pharmacology invites applications for a tenure-track **ASSISTANT PROFESSOR** position. Successful applicants are expected to have a minimum of two years postdoctoral experience, an excellent record of scholarship and either research support or the potential to develop and maintain an active, independent research program. Preference will be given to applicants with training and postdoctoral experience in molecular biology and the ability to apply these to the solution of pharmacological problems. Participation in the teaching of medical and graduate students is also required. Please send curriculum vitae, statement of research interests, and at least three letters of recommendation to: Dr. Wallace R. Woofes, Chairman, Department of Pharmacology, School of Medicine, East Carolina University, Greenville, NC 27858. Applications will be received until April 15, 1996. Federal law requires proper documentation of identity and employability at the time of employment. *East Carolina University is an Affirmative Action/Equal Opportunity Employer and invites applications from women and minority scientists.*

University of California, San Diego  
School of Medicine

Two Tenure Track or  
Tenured Positions in Immunology

Applications are invited for two available positions at the assistant professor or full professor rank in basic immunology. Areas of interest should include: signal transduction in immunological functions, protein trafficking related to receptor assembly and antigen presentation, structure related to function in immuno-specific molecules, the role of cytokines, cell adhesion molecules and inflammatory reactions in immune responses, mechanisms of host-pathogen interactions, development of immune systems, functional organization of immunity-relevant organs and mechanisms and genetics of autoimmune responses. Rank and salary commensurate with experience and based on UC scale.

Applicants should have a M.D. or Ph.D. degree with relevant postdoctoral experience and demonstrated ability to conduct an independent research program using modern techniques. They should also have skills and interest in teaching. Submit curriculum vitae, bibliography, statement of professional goals and research interests and names and addresses of 5 references to:

Immunology Search Committee  
c/o Gordon N. Gill, M.D.  
University of California, San Diego  
9500 Gilman Drive, #119 CMM Bldg.  
La Jolla, CA 92093-0650

Application deadline: April 15, 1996  
EOE/AA



Rosenstiel School of Marine  
and Atmospheric Science

Rosenstiel School of Marine  
and Atmospheric Science

TRITIUM LABORATORY

is seeking a  
Research Assistant/Associate/Professor

With interest in Oceanography or  
Groundwater Hydrology

Ph.D. in math or a natural science required.

The Tritium Laboratory does low-level tritium measurements in oceanographic and hydrological projects in cooperation with US and foreign institutions. Funding for the operations and staff of about five, is derived from semi-commercial measurement service to institution and businesses, and from regular research grants and contracts from US agencies.

The applicant should have research interests in Hydrology or Oceanography, a strong background in measurement techniques and basic knowledge in chemistry. Previous experience in low-level beta counting is very desirable, and an undergraduate degree in nuclear engineering would be a plus. We envision that the scientist would pursue their own fundable research interests, improve and modernize the present measurement system, and oversee routine laboratory operations.

Send resume and three references to:

Search Committee Chair, TL  
UM/RSMAS/MAC  
4600 Rickenbacker Cswy.  
Miami, FL 33149

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Opportunity/Affirmative Action Employer,  
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RADIATION ONCOLOGY/MOLECULAR BIOLOGY  
FACULTY POSITION

The Division of Radiation Oncology of the Mayo Clinic at Rochester, Minnesota is seeking a BC/BE Radiation Oncologist with demonstrated clinical and basic science research skills. The successful candidate will devote time to clinical activities, teaching and basic investigation (preferably in a research area that would complement our existing group of oncology scientists who are interested in the mechanisms of action of multiple chemotherapeutic agents, radiation and the interaction of radiation and chemotherapy). The successful candidate will have the opportunity to participate in the clinical research activities of the North Central Cancer Treatment Group. This group and other Mayo Cancer Center Clinical activities could serve as a source to implement translational research endeavors that arise as a result of the investigators basic investigations. The successful candidate's division of time will be dependent upon the candidate's previous experience and extramural funding. Please forward curriculum vitae to:

James A. Bonner, M.D.  
Research Chair, Division of Radiation Oncology  
Mayo Clinic  
200 First St. S.W.  
Rochester, MN 55905

or

Leonard L. Gunderson, M.D.  
Chairman, Division of Radiation Oncology  
Mayo Clinic  
200 First St. S.W.  
Rochester, MN 55905

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

## Group Leader Sample Processing

Becton Dickinson, a Fortune 500 health care conglomerate, has a challenging opportunity for a Group Leader on its Sample Processing team for projects associated with its DNA Diagnostic Systems Unit, located in Sparks, Maryland.

Reporting to the Senior Manager, you will lead our team through the current instrumented product development schedule and into novel, next-generation methodologies for preparing clinical samples to be compatible with nucleic acid amplification. A potential outlet for methodologies could be automation.

To qualify, we require a PhD in Molecular Biology, Microbiology or Biochemistry and 5 years' industrial experience. Proven expertise in nucleic acid amplification and/or in sample processing essential. We also require a track record of accomplishments as evidenced by any of the following: patents, publication and/or team leadership.

In exchange for your skills, we offer competitive salary and comprehensive benefits. For prompt, confidential consideration, please send your resume, and salary requirements, to: **Becton Dickinson, Human Resources, Diagnostic Instrument Systems, P.O. Box 999, Sparks, MD 21152.** We are an equal opportunity employer.

*Superior quality is the only way.*

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DICKINSON**



## POSITIONS OPEN

### FACULTY POSITION CANCER RESEARCH

The Eppley Institute for Research in Cancer of the University of Nebraska Medical Center (UNMC) is seeking applicants for a **TENURE-LEADING POSITION** in the general area of Molecular and Cellular Cancer Research. The Eppley Institute is involved in a multidisciplinary effort focused on basic research in cancer and is part of the NCI-designated UNMC/Eppley Cancer Center. In addition to directing an independent research program, the successful applicant is expected to interact with other faculty, and be involved in the training of graduate students and postdoctoral fellows through Eppley's NCI-supported Cancer Research Training Program.

Applicants should send their résumé, names of three references, and a letter detailing their research goals to: **Dr. Raymond Ruddon, Director, Eppley Institute, University of Nebraska Medical Center, 600 South 42 Street, Omaha, NE 68198-6805.**

*The University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR MOLECULAR BIOLOGY

The University of Southern Maine (USM) invites applications for a tenure-track Molecular Biology **ASSISTANT PROFESSOR** position starting August 1996 which will complement the ongoing teaching and research activities in the M.S. program in Applied Immunology and Molecular Biology and the B.S. program in Biological Sciences. The successful candidate must be committed to excellence in teaching at a public comprehensive university that serves both traditional and non-traditional students, and to develop a research program that actively involves graduate and undergraduate students. Relationships with area hospitals, research organizations, and industry provide opportunities for interaction.

We seek candidates with a Ph.D., preferably with postdoctoral training, in any area of contemporary molecular biology, preferably with a background in molecular immunology and hands-on experience in gene cloning, DNA sequencing and gene expression.

Candidates should send a curriculum vitae, description of research interests and accomplishments, recent publications, a statement of teaching philosophy, and names and addresses of references to: **Chairperson, Applied Medical Sciences, RE: 101, John Mitchell Center, University of Southern Maine, Gorham, ME 04038.** Review of applications will begin immediately and continue until position is filled. *USM is an Equal Employment Opportunity/Affirmative Action Employer committed to diversity, quality, and reasonable accommodations.*

### BIOMEDICAL ENGINEERING FACULTY

The Department of Biomedical Engineering of Case Western Reserve University (CWRU) invites applications for **TENURE-TRACK FACULTY POSITIONS** in biomedical engineering starting July/August 1996. These positions require a Ph.D. with significant postdoctoral research experience. Teaching undergraduate and graduate biomedical engineering students is essential. Only those candidates with specific expertise in at least one of the following areas will be considered: 1) Mathematical modeling of excitable cells and tissues. Electromagnetic fields, inverse problems, neural networks, nonlinear dynamics, stochastic processes, numerical methods. 2) Cardiac cell electrophysiological measurements and quantitative analysis. Patch-clamp and voltage-clamp techniques for the single channel and whole cell. Cell isolation and tissue culture. Gap-junction function of cell pairs. Imaging intracellular calcium and pH. 3) Electrophysiology of single neurons and neural networks. Patch-clamp recording and electrical activity imaging of dissociated neurons, in-vitro brain slices, and cultured neural networks. Quantitative analysis of experimental data. 4) Nanoscale measurements and instrumentation development for biomaterials analysis. Cell-molecular force-distance relations and imaging. Optical, microscopic, and spectroscopic techniques. 5) Biomolecular design and engineering of protein-based biomaterials. Glyco-protein (oligosaccharide) engineering for biomaterial architectures. Self-assembling macromolecular systems. Applicants should send a curriculum vitae and names of at least three references to: **Prof. Gerald M. Sidel, Chairman, Department of Biomedical Engineering, Wickenden 504, Case Western Reserve University, Cleveland, OH 44106-7207.** *CWRU is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

The Department of Biology invites applications for the following tenure-track **ASSISTANT PROFESSOR** level positions to begin August 1996. An appropriate Ph.D. degree is required with preference given to candidates with postdoctoral research experience. Applicants must have a strong commitment to teaching and supervision of undergraduate research projects. Research interests should be in the areas of ecology, biochemistry or molecular approaches to vertebrate evolution and systematics.

Introductory Biology: Responsibilities will include teaching freshman major and nonmajor biology courses and coordinating multi-section laboratories. **Dr. John Kupinski, Search Chairman.**

Anatomy and Physiology: Duties will include teaching freshman biology, anatomy and physiology, comparative anatomy and kinesiology laboratory courses. **Dr. George Lapennas, Search Chairman.**

Applicants should submit letter that contains a statement describing teaching and research interests together with a curriculum vitae including names and telephone numbers of three professional references to: **Search Chair, Department of Biology, St. Bonaventure University, St. Bonaventure, NY 14778.** One position is currently scheduled for the fall 1996 semester and the other is pending approval depending on budgetary and fall of 1996 enrollment constraints. Applicant review will begin March 1, 1996. *Equal Opportunity Employer.*

The Center for Drug Evaluation and Research (CDER) announces an opening for the position of **DIRECTOR**, Office of New Drug Chemistry. Applications must be received by March 15, 1996. The Office of New Drug Chemistry performs the chemistry and manufacturing controls as well as the microbiology reviews associated with Investigational New Drug Applications (INDS), New Drug Applications (NDAS), and their supplements and amendments for the purpose of determining the acceptability of such submissions. This opening is a civil service position in the Senior Biomedical Research Service (SBRS). The SBRS salary range is \$67,941 to \$148,400. Applicants employed by institutions of higher learning who are appointed to the SBRS have the option of participating in the Federal Employees Retirement System or, subject to certain limitations, continuing to participate in the retirement program of their institution. Applicants must have a doctorate in chemistry or related sciences; demonstrated skills and expertise to command the respect of professionals in the chemistry field in the medical and scientific community, and strong managerial experience or potential. It is desirable that applicants have experience conducting and administering a chemistry or pharmaceutical program in either the Federal government, academia or industry and that the applicant have national or international recognition as a chemist. Submit application material to: **John Anderson, Office of Human Resources and Management Services, Food and Drug Administration, Room 7B-32, HFA-408, Parklawn Building, 5600 Fishers Lane, Rockville, MD 20857.** For further information contact Mr. Anderson, Telephone: 301-443-1755 or FAX: 301-443-6703.

**ASSISTANT or ASSOCIATE PROFESSOR** of Pharmacology, tenure-track position. Scientist with training in Pharmacology and research interests that complement department research programs in cellular, molecular, and behavioral pharmacology. Send nominations/applications including curriculum vitae, a statement of research goals, teaching interest and names of three references to: **Search Committee, Department of Pharmacology, University of North Texas Health Science Center at Fort Worth, 3500 Camp Bowie Boulevard, Fort Worth, TX 76107-2699.** *An Equal Opportunity/Affirmative Action Employer/Educator.*

**ASSISTANT PROFESSOR.** Molecular Biologist. The Department of Biological Sciences at Florida Atlantic University invites applications for a tenure-track position. Particular interest will be shown to an individual with environmental research interests in the area of virology. Teaching duties will include both undergraduate and graduate courses. The Department currently offers degrees through the Master's level. Applicants should send résumé, pertinent reprints, a statement of teaching and research interests and the names of three references to: **Dr. James Hartmann, Department of Biological Sciences, Florida Atlantic University, Boca Raton, FL 33431-0991.** The closing date will be March 4, 1996. *Florida Atlantic University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### VERTEBRATE PHYSIOLOGIST

The Biology Department, Indiana University (IU) Southeast, invites applications from qualified Ph.D.s with excellent teaching credentials for a **TENURE-TRACK POSITION** to begin fall of 1996. The successful candidate will teach a core comparative animal physiology course with laboratory, introductory physiology sections, and courses in related areas, and supervise individual undergraduate student research. The applicant will maintain an ongoing research program with extramural support. Individual research space, small animal facilities, and research start-up funds are available. Postdoctoral research experience at the organ/system level and field experience are desirable. Send statement of interest including teaching philosophy/professional goals, curriculum vitae, academic transcripts, and three letters of recommendation by March 15, 1996 to: **Human Resources, IU Southeast, Box 95-22, ATTN: Dr. Carl Christenson, Chair Physiology Search Committee, 4201 Grant Line Road, New Albany, IN 47150.**

*Indiana University Southeast is an Equal Opportunity/Affirmative Action Employer.*

The Department of Pathology at Memorial Sloan-Kettering Cancer Center invites applications for a position at the rank of **ASSISTANT ATTENDING** in the area of Clinical and Investigative Molecular Pathology. Applicants should be board-certified in Anatomic Pathology and have substantial training and experience regarding the application of molecular techniques. Candidates are expected to take part in the development of a multidisciplinary investigative molecular pathology program. Emphasis will be placed on research regarding the development of molecular technologies which can be applied to diagnostic laboratory medicine. This includes the expectation that the individual will apply for external funding to help support this work. Please address applications to: **Juan Rosai, M.D., Chairman, Department of Pathology, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.** *Memorial Sloan-Kettering is an Equal Opportunity/Affirmative Action Employer and complies with all applicable federal and state laws regarding non-discrimination and affirmative action.*

### RESEARCH FACULTY POSITION Yale University School of Medicine

The Section of Pulmonary and Critical Care Medicine of the Department of Internal Medicine of Yale University School of Medicine invites applications for a research faculty position at the **ASSOCIATE RESEARCH SCIENTIST** level. Outstanding candidates with a Ph.D. or M.D. degree will be considered. Experience in molecular and cell biology is essential. Interest in inflammation, cytokine biology and virology is highly desirable. The chosen candidate will work closely with scientists in the Pulmonary Immunobiology Laboratory on research projects focusing on cytokines, viruses and asthma. Please respond with curriculum vitae and three letters of recommendation to: **Jack A. Elias, M.D., Professor of Medicine, Chief of Pulmonary and Critical Care Medicine, Yale University School of Medicine, Section of Pulmonary and Critical Care Medicine, Department of Internal Medicine, 333 Cedar Street, 105 LCI, New Haven, CT 06520-8057.** Telephone: 203-785-4163; FAX: 203-785-3826. *Yale University School of Medicine is an Equal Opportunity/Affirmative Action Employer.*

**PREDOCTORAL AND POSTDOCTORAL TRAINING** in Developmental Neuroscience. The University of Arizona has established an interdisciplinary training program in basic and clinical aspects of developmental neuroscience, with support from the Flinn Foundation and NINDS. A broad range of cellular, molecular, genetic, and systems-level approaches are represented in research areas that include: molecular mechanisms of neurogenesis, development of synaptic connectivity and neuronal morphology, the neuronal basis for behavioral plasticity, neuron-glia interactions, hormone action, and ion channel/receptor expression and function. Trainees may work on collaborative projects or with one of the 15 members of the training faculty. *Postdoctoral applicants must be U.S. citizens or permanent residents of the U.S.* Review of applications begins February 12, 1996 and will continue through December 31, 1996. For information contact: **Richard B. Levine, Division of Neurobiology, University of Arizona, P.O. Box 210077, Tucson, AZ 85721-0077.** Email: [rbl@neurobio.arizona.edu](mailto:rbl@neurobio.arizona.edu). *The University of Arizona is an Equal Opportunity/Affirmative Action/ADA Compliance Employer.*

**RESEARCH SCIENTIST IN JUVENILE DIABETES  
FACULTY OF MEDICINE  
UNIVERSITY OF WESTERN ONTARIO**

Applications are invited for the position of the Alan Thicke Scientist in Juvenile Diabetes Research at the University of Western Ontario. This is a joint initiative of the Alan Thicke Centre for Juvenile Diabetes Research and the Faculty of Medicine, University of Western Ontario.

The successful candidate will be a full-time investigator whose research will advance knowledge of the processes involved in insulin-dependent diabetes and its complications, and will be committed to the development and application of improved understanding of the biology of pancreatic  $\beta$ -cells, mechanisms and prevention of  $\beta$ -cell destruction, or amelioration of the excessive morbidity and early mortality. The Scientist will be recruited to an established and expanding Diabetes Research Group at The University of Western Ontario including two Professors of Diabetes Research, a group funded by a Medical Research Council development award to study the immune and molecular basis of type-1 diabetes, a human islet transplantation laboratory, and a scientist working on the physiology of islet growth and function, insulin action and sensitivity, and diabetes and pregnancy. The scientist will have her/his laboratories based within either a Department of the Faculty of Medicine at the University, or at one of its associated Research Institutes, and will have a pivotal role in the future development of clinical and basic research initiatives in juvenile diabetes. The successful applicant will be expected to establish an independent research program, and to apply for external operating and personnel awards. There may be minimal teaching responsibilities attached to this appointment.

Applicants must have an M.D. or Ph.D. and necessary post-doctoral experience with a strong background in cellular and/or molecular biology. Salary will be commensurate with qualifications and experience. The initial appointment will be for a five year period at the level of Assistant or Associate Professor. Applicants should fax or mail curriculum vitae and names of three referees to Dr. Paul Harding, Associate Dean, Research, Health Sciences Addition, University of Western Ontario, London, Ontario, Canada N6A 5C1. Fax: (519) 661-3797. **Closing date is February 28, 1996.**

*In accordance with Canadian immigration requirements this advertisement is directed to Canadian Citizens and Permanent Residents of Canada. The University is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.*

## Stanford University Ocean Margins Initiative Faculty Positions

A major component of future research and teaching in the School of Earth Sciences at Stanford will be improved understanding of ocean margins from the coastal plain to the base of the continental slope. The Stanford University Ocean Margins Initiative opens three tenure-line faculty positions to establish a new program focused on the geology, physics, chemistry, and engineering science of the ocean margins and the record of environmental change preserved within coastal sediments. Research areas which might fit well into the new program include, but are not limited to: coastal geochemical/bio-geochemical cycles, with an emphasis on the fluxes between human sources and sinks (organisms) and repositories (sediments); coastal paleoclimatology; ocean margin tectonic processes; subsurface fluids (water, oil, gas and associated clathrates) and flows across the coastal interface; and fluid dynamics along ocean margins.

The Stanford Ocean Margins Initiative seeks scientists with demonstrated records of excellence in research. Candidates must be committed to quality in undergraduate and graduate teaching. An interest in applying new technologies to the continental margin setting is particularly important. Special opportunities exist for collaborations with the Monterey Bay Aquarium Research Institute, which has remarkable experimental access to the coastal ocean, and with Stanford's Hopkins Marine Station.

We plan to begin filling the three positions in the Autumn Quarter of 1996. Appointments will be made at the Assistant Professor level for at least two of the three appointments. Senior scientists or engineers may also be considered for the other appointment. Applications, including a curriculum vitae, a statement outlining research interests that would materially contribute to the Stanford Ocean Margins Initiative, and names and addresses of three referees, should be sent by 31 March 1996 to:

**Dr. Franklin M. Orr, Jr., Dean, School of Earth Sciences  
101 Mitchell Building  
Stanford University  
Stanford, CA 94305-2210**

*Stanford University has a strong institutional commitment to the principle of diversity. In that spirit, we particularly encourage applications from women, members of ethnic minorities, and individuals with disabilities.*

**Faculty Position in  
Advanced Healthcare Technology  
Department of Applied Science  
University of California, Davis  
and Lawrence Livermore  
National Laboratory**

Applications are invited for a tenured, senior faculty position in the area of Advanced Healthcare Technology. This position will be a joint appointment with the Department of Applied Science, University of California, Davis and the Lawrence Livermore National Laboratory (LLNL). The applicant is expected to build and direct a vigorous program of research in the development of high technology solutions to health care problems, in collaboration with the new LLNL Center for Healthcare Technologies. Individuals with programs and research interests in, but not limited to, the areas of biomedical imaging, tissue engineering, biosensors, micro-instrumentation, medical photonics and physics-based therapies are invited to apply. As a member of the faculty of the Department of Applied Science, he/she will teach and supervise graduate students at both the Davis and Livermore campus sites. Qualifications include a Ph.D. degree and a strong research record in relevant areas. Previous university experience in teaching and administration is desirable. Send resume, list of references, and research plan to *Chair, Search Committee, Advanced Healthcare Technology, Department of Applied Science, P.O. Box 808, L-794, Livermore, CA 94550*. A decision for filling the position will be made after April 1, 1996. Applications will be accepted until such a decision is made. The University of California is an affirmative action/equal opportunity employer and encourages applications from women and minority groups.



UNIVERSITY OF  
PENNSYLVANIA  
HEALTH SYSTEM

**UNIVERSITY OF PENNSYLVANIA**

**INSTITUTE FOR  
HUMAN GENE THERAPY  
DEPARTMENT OF MEDICINE**

The Institute for Human Gene Therapy is recruiting an Associate Professor or Professor in the area of AIDS research at the University of Pennsylvania, who will report directly to Dr. James Wilson, Institute Director. This individual will direct a multidisciplinary program in basic and translational research of gene therapy for AIDS. Research experience in immunobiology and/or hematopoiesis is preferred. Candidates should have an M.D. +/- Ph.D. with clinical training in hematology/oncology, immunology or infectious diseases. We invite applications for an Associate Professor or Professor with tenure at the University of Pennsylvania Health System.

Interested individuals should send their CV, along with 3 references, to:

**James M. Wilson, M.D., Ph.D.**

Director

**Institute for Human Gene Therapy  
204 Wistar Institute  
3601 Spruce Street  
Philadelphia, PA 19104-4268**

*Equal Opportunity/Affirmative Action  
Employer. We encourage minority and  
women candidates.*

**CHAIR  
DEPARTMENT OF  
PHARMACOLOGY  
AND TOXICOLOGY**

**WRIGHT STATE UNIVERSITY  
SCHOOL OF MEDICINE  
DAYTON, OHIO**

We seek a Ph.D. or M.D. with an established record of external funding, and a commitment to scholarly achievement in research and teaching. We participate in the University's Biomedical Sciences Ph.D. Program and have teaching responsibilities for medical and nursing students.

The combined chair/faculty position has a 12 month salary commensurate with experience, start-up funds, new positions, and an opportunity to build and shape the direction of the department. Opportunities exist for collaboration with basic and clinical scientists at a nearby toxicological research center, local hospitals, and at the Dayton VA Medical Center. The Chair will be expected to maintain excellence in medical and graduate teaching in pharmacology and to develop externally supported faculty research programs.

The School of Medicine has 292 full-time faculty and over \$10 million in extramural research support. It is a model for community-based medical education and is a leader in recruiting and retaining minority students.

Submit curriculum vitae, three references with telephone numbers, and a letter of interest to **Jerald Kay, M.D., Chair, Search Committee, Wright State University School of Medicine, P.O. Box 927, Dayton, Ohio 45401-0927, (FAX 513-275-2817).**

Review of applications will begin February 15 and will continue until the position is filled.

*Wright State University is an EO/AA employer.*

## POSITIONS OPEN

### POSTDOCTORAL TRAINING PROGRAM RHEUMATOLOGY/IMMUNOLOGY DIVISION Tufts/New England Medical Center

**POSTDOCTORAL RESEARCH POSITIONS** available. Focus: studies of molecular mechanisms of *B. burgdorferi* attachment to host cells. T cell responses in Lyme disease, and immune regulation in inflammatory arthritis. Mentors: A. C. Steere, J. C. Coburn, L. Glickstein, R. Roubenoff, R. R. Isberg, B. T. Huber. Funding: NIH training grant (*permanent U.S. resident*). Applications (curriculum vitae, three reference letters) to: **Allen Steere, New England Medical Center, Box 406, 750 Washington Street, Boston, MA 02111. Equal Opportunity Employer.**

**POSTDOCTORAL POSITION:** (visiting, one-to-three years) available for microbiologist to study plant/microbe interactions in trace element uptake and Se volatilization by plants in wetlands. Required: Ph.D. in microbiology. Desired: experience in rhizosphere microbiology, isolation and identification of microbes. Salary: \$27,000 to \$30,000. Send curriculum vitae and three recommendations to: **Professor Norman Terry, Department of Plant Biology, 111 Koshland Hall, University of California, Berkeley, CA 94720-3102. Email: nterry@nature.berkeley.edu. Equal Opportunity Employer.**

### POSTDOCTORAL POSITION

**POSTDOCTORAL POSITIONS** are open for work on host-bacterium interactions, control of virulence factors, drug sensitivity, and oxidative stress in *Mycobacterium tuberculosis* or *Pseudomonas aeruginosa*. Applicants should have a Ph.D. in microbiology or in a related field. Candidates with experience in mycobacterial physiology, drug resistance, molecular biology, or work with macrophages or infection models are highly encouraged. Send curriculum vitae, bibliography, and names of three references to: **Dr. Vojo Deretic, University of Michigan Medical School, Department of Microbiology and Immunology, 5641 Medical Science II, Ann Arbor, MI 48109-0620 or FAX to Dr. Deretic at 313-764-3562. Deadline for applications is March 31, 1996. The University of Michigan is an Affirmative Action/Equal Opportunity Employer and encourages the application of qualified women and underrepresented minorities.**

### POSTDOCTORAL POSITION CELL BIOLOGY/BIOCHEMISTRY

**POSTDOCTORAL POSITION** available to study protein and lipid traffic and glycosylation in cultured cystic fibrosis cells. Experience in cell biology or carbohydrate/lipid analysis desirable. Send letter of application, curriculum vitae and names of three references to: **Ora A. Weisz, Ph.D., Renal-Electrolyte Division, University of Pittsburgh, 3550 Terrace Street, Pittsburgh, PA 15261. FAX: 412-383-8956; Email: weisz@novell1.dept-med.pitt.edu.**

**POSTDOCTORAL POSITION** available in fall 1996 to study the molecular biology of vascular growth with special emphasis on the role of the renin-angiotensin system and nitric oxide. The position requires a recent Ph.D. and experience in the above fields. Please send curriculum vitae, name of references and a key publication to: **Nabil Andrawis, M.D., Ph.D., Division of Clinical Pharmacology, Georgetown University, Med-Dent Building, NE403, 3900 Reservoir Road, Washington, DC 20007. Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available for studies of human melanoma and melanocyte-specific genes. Experience in molecular biology/genetics or molecular immunology is desirable. Interested candidates should send their curriculum vitae and the names of three references to: **Dorothea Becker, Ph.D., Department of Medicine, University of Pittsburgh, BST E1050, 211 Lothrop Street, Pittsburgh, PA 15213-2582.**

### YALE UNIVERSITY

**POSTDOCTORAL POSITION** to study the mechanism of immunoglobulin gene somatic hypermutation, using molecular genetic and biochemical approaches. Please send curriculum vitae, statement of research accomplishments and interests, and three letters of reference to: **Dr. Nancy Maizels, Department of Molecular Biophysics and Biochemistry, Yale University, 266 Whitney Avenue, New Haven, CT 06520-8114.**

## POSITIONS OPEN

### RENSELAER POLYTECHNIC INSTITUTE Postdoctoral Position in Solid State Physics Troy, New York 12180-3590

A **POSTDOCTORAL POSITION** in the Department of Physics, Applied Physics, and Astronomy is available for a period of up to three years. The work is in the area of solid state physics, and involves the synthesis and study of new semiconductor compounds for thermoelectric refrigerator and generator applications. A combination of interests in inorganic chemistry and semiconductor physics is required. An understanding of electrical and thermal transport properties of solids is desirable. Expected start date is early 1996. Applications should be addressed to: **Kate Spilker, Solid State Postdoctoral Position, Department of Physics, Applied Physics, and Astronomy, Rensselaer Polytechnic Institute, Troy, NY 12180-3590. An application must include a curriculum vitae and a list of three professional references. Rensselaer Polytechnic Institute is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.**

### PLANT DEVELOPMENT AND EVOLUTION

**POSTDOCTORAL POSITION** available to study evolution of fertilization patterns in seed plants (particularly basal angiosperms). Strong background in developmental morphology and/or cell biology with thorough grounding in phylogenetic theory is required. Send curriculum vitae and names of three references to: **William E. Friedman, Department of EPO Biology, University of Colorado, Boulder, CO 80309. Email: ned@colorado.edu.**

### POSTDOCTORAL POSITION

To investigate the mechanism and consequences of Ty element retrotransposition in *S. cerevisiae*. These transposable elements are structurally and functionally similar to retroviruses and are widely dispersed in nature. We seek an individual with experience in genetics, microbiology, molecular biology or biochemistry. Excellent benefits and work environment; competitive salary. Please send curriculum vitae, brief description of research and contact information for three references to: **Dr. D. Garfinkel, c/o Personnel, ABL-Basic Research Program, P.O. Box B, Building 428, Frederick, MD 21702-1201. Equal Opportunity Employer/Minorities/Females/Disabled/Veterans.**

**POSTDOCTORAL POSITION** in Cell and Molecular Biology/Biochemistry Growth factors/receptors and signal transduction pathways involved in cell proliferation and apoptosis, including the Jak-Stat pathways. Documented molecular expertise including publications in PCR, cloning, expression and characterization of recombinant protein, and cDNA library construction required. Experience with tissue culture, yeast two-hybrid system and receptor characterization is a plus. Send curriculum vitae to: **Dr. Steven E. Wilson, M.D., The Cleveland Clinic Foundation, Eye Institute/A31 and Department of Cell Biology, 9500 Euclid Avenue, Cleveland, OH 44195. Email: wilsons@cesmtp.ccf.org.**

**POSTDOCTORAL ASSOCIATES**—Individuals trained in pharmacology, cell or molecular biology to work in the area of chemotherapy of brain-tumors with an emphasis on targeted drug delivery or cellular pharmacodynamics. Excellent opportunity to contribute to novel research initiatives and work in an interactive environment. Please send complete curriculum vitae to: **J. M. Gallo, c/o Human Resources Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**

Winona State University has an **ASSISTANT PROFESSOR**, tenure-track Plant Biologist opening. Teaching may include: introductory biology, cell biology, genetics, molecular techniques and plant physiology. Ph.D. required. For a complete job description, check out our web page: <http://www.winona.msus.edu/affirmativeaction/home.htm> or call 507-457-5639. Application deadline is March 18, 1996. Position available pending budgetary approval. *Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** are available in two areas of Fox Chase Cancer Center's Molecular Oncology Program: signal transduction by tyrosine kinases and molecular basis of cellular resistance to cytotoxic drugs. Please send curriculum vitae and two to three letters of recommendation to: **Dr. Gary Kruh, c/o Human Resources Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS CANCER METABOLISM Baylor College of Medicine, Houston VA Medical Center

**POSTDOCTORAL POSITIONS** are available immediately to study the relationship between cancer cell energy metabolism, cell motility, and growth factor signaling. Projects will involve close collaboration with Biomedical Engineering, Rice University. A strong background in cell biology, biochemistry, and computer science is required. Background in molecular biology is desirable. Send curriculum vitae, brief summary of research interests, and names of three references to: **Dr. Daniel Epner, VA Medical Center, Medical Service (111H), 2002 Holcombe Boulevard, Houston, TX 77030. Telephone: 713-794-7980; FAX: 713-794-7578; Email: depner@bcm.tmc.edu.**

**POSTDOCTORAL POSITION** will be open July 1996 at East Carolina University School of Medicine (ECU-SOM). Successful candidate will participate in research in gastrointestinal epithelial cell proliferation utilizing techniques in cell culture, molecular technology, and cell biology. Minimum requirements: Ph.D. with some experience in molecular biology; must be U.S. citizen or have green card. Starting annual salary \$27,500 with paid medical insurance. Send curriculum vitae and names of three references to: **Edward R. Seidel, Ph.D., Department of Physiology, ECU-SOM, Greenville, NC 27858. Telephone: 919-816-2775; FAX: 919-816-3460; Email: Seidel@Brody.med.ecu.edu. Closing date February 28, 1996.**

The University of Minnesota (UM), invites applications for a two-year **POSTDOCTORAL FELLOW-SHIP** beginning August 1, 1996 as part of a NSF research and training grant focused on historical, philosophical, and scientific issues related to the natural historical sciences. Individuals with a Ph.D. and interdisciplinary training in conservation biology, ecology, environmental history, or the history and philosophy of biology are strongly encouraged to apply. Send a detailed letter of application, curriculum vitae, and three letters of recommendation by March 15, 1996 to: **John Beatty, Ecology, Evolution and Behavior, 100 Ecology Building, UM, St. Paul, MN 55108. FAX: 612-624-6777. Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL POSITIONS Washington University, St. Louis

Two **POSTDOCTORAL POSITIONS** available for mechanistic studies of DNA motor proteins (helicases) and SSB protein-DNA interactions using transient kinetics (stopped-flow, quenched-flow), biochemical and biophysical approaches. Send curriculum vitae and have three letters of reference sent to: **Professor Timothy M. Lohman, Biochemistry and Molecular Biophysics, Washington University School of Medicine, Box 8231, 660 South Euclid Avenue, St. Louis, MO 63110.**

**POSTDOCTORAL POSITIONS** are available to study the enzymology and physiology of acetotrophic methane-producing *Archaea* for projects funded by the NIH, NSF and DOE. Background in biochemistry and/or molecular biology preferred. Contact: **James G. Ferry, Professor of Microbiology, Department of Biochemistry and Molecular Biology, Penn State University, University Park, PA 16802-4500; Telephone: 814-863-5721; FAX: 814-863-7024; Email: jgf3@psuvm.psu.edu.**

A **STAFF RESEARCH SCIENTIST** position is available to continue and push forward the development of novel extended-resolution modes of 3D widefield optical microscopy. Requirements include a Ph.D. in physics or applied physics and a demonstrated thorough understanding of the theory of 3D spatial information transfer in widefield optical systems having two opposing objective lenses. The candidate must have experience in optical engineering, microscope design, and the practical use of computational deconvolution methods for wide field microscopy. Independent candidates with a track record of substantive advances in the field should send their curriculum vitae and references to: **David Agard, Ph.D., Department of Biochemistry and Biophysics, University of California, San Francisco, CA 94143. UCSF is an Equal Opportunity Employer.**





## CENTER FOR IMMUNOLOGY - FACULTY POSITIONS

The Center for Immunology integrates basic immunology research and educational programs in ten departments at Washington University Medical Center. Faculty positions at the Assistant and Associate Professor levels are currently available in the Departments of Pathology, Pediatrics, and Internal Medicine (Divisions of Allergy & Immunology and Rheumatology) for candidates interested in basic immunology research. Assistant Professors will be expected to develop independent tenure-track research programs. Associate Professor candidates must demonstrate established, funded research programs. For M.D. applicants, board eligibility in the appropriate subspecialty is desirable. Minority and women applicants are especially encouraged to apply.

Each applicant should forward his or her c.v., bibliography, and names and addresses of three references to one of the following individuals:

David D. Chaplin, M.D., Ph.D. (Medicine, Allergy & Immunology),  
Jonathan D. Gitlin, M.D. (Pediatrics, Rheumatology & Immunology),  
Emil R. Unanue, M.D. (Pathology), or  
Wayne M. Yokoyama, M.D. (Medicine, Rheumatology)

Washington University School of Medicine  
660 South Euclid Avenue, Box 8045  
St. Louis, MO 63110

*Washington University is an equal opportunity employer.*

## COURSES AND TRAINING

### YALE UNIVERSITY SCHOOL OF MEDICINE Fellowship Training in Academic Rheumatology

The training program in rheumatology is designed to prepare M.D. or M.D./Ph.D. fellows for careers in academic investigation. Following one year of training, fellows will pursue two to four years of basic research in immunology, microbiology, and/or inflammation. Training is supported in part by a grant from the NIH. Current research includes:

**Philip W. Askenase, M.D.** - *Mechanisms of initiation and regulation of T cell mediated reactions.*

**Linda K. Bockenstedt, M.D.** - *Host immune responses to *Borrelia burgdorferi*.*

**Joe E. Craft, M.D.** - *T-B cell collaboration in autoimmunity.*

**I. Nicholas Crispe, Ph.D.** - *Activation-induced cell death of T lymphocytes.*

**Erol Fikrig, M.D.** - *The molecular immunobiology of Lyme disease.*

**Richard A. Flavell, Ph.D.** - *Tolerance induction and its breakdown in autoimmune diseases.*

**Adrian C. Hayday, Ph.D.** - *Development and function of T lymphocytes.*

**Charles A. Janeway, Jr., M.D.** - *CD4 T cell activation.*

**Fred S. Kantor, M.D.** - *The immunologic basis for immunity against tick bites.*

**Stephen E. Malawista, M.D.** - *The phagocytic functions of leukocytes, and the cell biology of Lyme disease.*

**Mark J. Mamula, Ph.D.** - *B and T cell responses to intracellular autoantigens.*

**Joel L. Rosenbaum, Ph.D.** - *Chlamydomonas as a model for studying the assembly of cell organelles.*

**Mark J. Shlomchik, M.D., Ph.D.** - *The basis for autoantibody production in autoimmune disease.*

Applicants should submit a brief statement of research interests and curriculum vitae and arrange to have three letters of reference sent to:

**Joe E. Craft, M.D.**  
Chief, Section of Rheumatology  
Yale University School of Medicine  
P.O. Box 208031  
New Haven, CT 06520-8031  
Telephone: (203) 785-7063 or (203) 785-2454  
Fax: (203) 785-7053

*An Equal Opportunity Employer*

## MEETINGS

### MESENCEPHALIC DOPAMINERGIC CELL CULTURES

**Two-day meeting, March 11-12, 1996**  
Natcher Conference Center, Bldg. 45  
National Institutes of Health  
Bethesda, MD

#### Preliminary Program

#### Monday, March 11, 1996

##### Session I: METHODS

Cultures of human cells	Spenger (Switzerland)
Postnatal cultures	Nakajima (USA)
Explant cultures	Ostergaard (Denmark)
Role of serum in dopaminergic cell cultures	Takeshima & Shimoda (Japan)
Long-term cultures	Heller (USA)
Micro-island cultures	Commissiong (USA)

##### Session II: NEUROTROPHIC FACTORS

Dopaminergic neurotrophic factors	Unsicker (Germany)
Glia-derived neurotrophic factors	Dreyfus (USA)
Glial cell line-derived neurotrophic factor	Lin (USA)
Plasticity of the dopaminergic neuronal phenotype	Iacovitti (USA)
Molecular mechanisms in the ontogeny of dopaminergic neurons	Hynes (USA)

##### Special lecture:

**Dopamine function in the basal ganglia** Gerfen (USA)

#### Tuesday, March 12, 1996

##### Session III: MOLECULAR AND FUNCTIONAL CORRELATES

Very early expression of tyrosine hydroxylase	Joh (USA)
Transcriptional regulation of tyrosine hydroxylase	Chikaraishi (USA)
Function of tyrosine hydroxylase during development	Zhou (Canada)
Cloning and cellular expression of the Weaver gene: links to Parkinson's disease?	Patil (USA)
Dopaminergic neurons in the Weaver mutant mouse	Ghetti (USA)

##### Special lecture:

**Molecular approaches to Parkinson's disease** McKay (USA)

#### POSTER SESSION

Twenty posters will be on display on Monday, March 11. Posters will be manned and discussed from 11:30 am - 1:00 pm.

##### Organizing Committee:

John Commissiong (Chairman)  
Cheryl Dreyfus  
Charles Gerfen  
Ron McKay  
Klaus Unsicker

##### INFORMATION:

There is no registration fee. However, to attend the meeting, you must pre-register. Registration will be limited to 250 people. To register, please include the following information on a single sheet of paper:

"MESENCEPHALIC DOPAMINERGIC CELL CULTURES"  
March 11-12, 1996

Name:

Institutional address:

Fax No:

Tel No:

e-mail address:

Send this information by fax to: 301-402-4526

or by e-mail to: commjw@helix.nih.gov

**The deadline for receipt of the registration form is February 16, 1996**

Rooms have been reserved for the meeting at the Holiday Inn (Tel 301 652-2000), Hyatt Regency (Tel 301 657-1234), and Marriott Hotel (Tel 301 897-9400) in Bethesda. There are also several small motels in the immediate area. The final program for the meeting, together with information about hotels and motels, transportation and restaurants, will be sent by Friday, February 23, 1996.

**Sponsored by the National Institute of Neurological Disorders and Stroke (NINDS), NIH.**

## POSITIONS OPEN

### PALEOECOLOGY POSITIONS

**PALEOLIMNOLOGIST. POSTDOCTORAL RESEARCH ASSOCIATE** position to investigate the effects of terrestrial ecosystem change on lake ecosystems and the physical, geochemical, and biological properties of lake sediments. This position will work within an interdisciplinary project comprising palynologists, archaeologists, and historical and community ecologists investigating the impact of human and natural disturbances on forest ecosystems. Experience in stratigraphic analysis relating to lake history and development, strong quantitative skills, and desire to work in an interdisciplinary ecological group are essential.

**PALEOECOLOGIST. RESEARCH ASSISTANT POSITION** to undertake palynological and stratigraphic analysis of lake and wetland sediments in a project examining forest dynamics and wetland development over the last 2,000 years. Responsibilities include field work, stratigraphic and pollen analysis, sample and data management, and quantitative analysis using multivariate and other techniques. B.S. with background in palynology, paleoecology, and quantitative analysis and an interest in working in an interdisciplinary environment required. Experience in forest ecology is highly desirable.

Please send résumé, cover letter, supporting documentation, and three letters of recommendation to: **Dr. David Foster, Harvard Forest, P.O. Box 68, Petersham, MA 01366** by March 1, 1996.

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

**POSTDOCTORAL POSITION(S)** available for recent Ph.D. in Chemistry or Biochemistry with experience in the chemical synthesis of purine nucleotides/nucleosides or protein chemistry and molecular biology and an interest in enzymology and transmembrane signal transduction. Projects involve the development and use of ligands that target specific binding domains for studies of structure/function relationships in recombinant wild type and mutant forms of several adenylyl cyclase isozymes. Send curriculum vitae, including evidence of experience in organic chemistry and/or protein chemistry, a statement of research interests, and the names of three references to: **Roger A. Johnson, Ph.D., Department of Physiology and Biophysics, SUNY/Health Sciences Center, Stony Brook, NY 11794-8661** or via Email to [rjohnson@povfax.pnb.sunysb.edu](mailto:rjohnson@povfax.pnb.sunysb.edu). *An Affirmative Action/Equal Opportunity Employer.*

### BLOOD COAGULATION ENZYMOLOGY VANDERBILT UNIVERSITY

A **POSTDOCTORAL RESEARCH POSITION** is available to investigate the mechanisms and regulation of blood coagulation reactions with protein chemistry, enzyme kinetics, and fluorescence spectroscopy approaches. Interested individuals who are recent Ph.D. degree graduates in biochemistry, biophysics, chemistry, or biology should send a copy of their curriculum vitae and arrange for two letters of recommendation to be sent to: **Dr. Paul Bock, Vanderbilt University School of Medicine, Department of Pathology, C-3321 Medical Center North, Nashville, TN 37232-2561**. *Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.*

### JUNIOR FELLOW EXPERIMENTAL NEUROSCIENCE

Senior **POSTDOCTORAL POSITION** available to study aspects of developmental neurobiology using molecular, cellular, and transgenic animal systems. Candidates should have a background in molecular or cellular approaches to nervous system development. Experience with transgenic technology and neuroanatomy is useful. Send curriculum vitae and the names of three references to: **Dr. W. Einar Gall, Research Director, The Neurosciences Institute, 10640 John Jay Hopkins Drive, San Diego, CA 92121**.

**POSTDOCTORAL POSITIONS** available to study synaptic structure, function, and plasticity in the hippocampus. Must have experience in brain slice physiology and/or ultrastructural immunocytochemistry. Will be trained in serial electron microscopy and three-dimensional analysis. Please send curriculum vitae, reprints, brief statement of interests, names and telephone numbers of three references to: **Dr. Kristen M. Harris, Division of Neuroscience, Children's Hospital, Enders 260, 300 Longwood Avenue, Boston, MA 02115**. *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### TWO POSTDOCTORAL POSITIONS Slow Virus/Neurodegenerative Disease

Established and new rodent models of human Creutzfeldt-Jakob Disease are being used 1) to understand fundamental mechanisms of pathogenesis, 2) to investigate diagnostic and therapeutic strategies that can be applied to human disease, and 3) to determine the essential molecular structure of the infectious agent. Self-motivated individuals with a strong background in either molecular virology or neuroscience/cell biology will have the opportunity to pursue cross-disciplinary projects. This program includes five experienced faculty with excellent technical facilities, e.g. transgenic, molecular biology and *in-situ*/structural resources.

Send letter, curriculum vitae, and names of three references to: **Dr. Laura Manuelidis, Head, Section of Neuropathology, Yale Medical School, New Haven, CT 06510**. FAX: 203-785-6381.

**POSTDOCTORAL POSITION**, Johns Hopkins School of Medicine. Position available June 1, 1996 for the study of the structure, function, and regulation of mitochondrial ATP synthase. The successful candidate will have a chemical/biochemical background, laboratory experience in the rudiments of molecular biology (cloning, sequencing, and mutational analysis), and a strong desire to obtain both structural and functional information and relate the two. Highly motivated students who will soon obtain the Ph.D. degree and who have published or *In Press* at least two first authored papers in a refereed journal will be given preference. Send curriculum vitae, a brief description of research experience, and names of three references to: **Dr. Peter L. Pedersen, Department of Biological Chemistry, Johns Hopkins University, School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205-2185**. *An Equal Opportunity/Affirmative Action Employer.*

## ANNOUNCEMENTS

### CAENORHABDITIS GENETICS CENTER (CGC)

The CGC acquires, maintains, and distributes genetic stocks of *Caenorhabditis elegans* for use by investigators initiating or continuing research on this nematode. The CGC's collection of more than 2,350 strains includes one allele of each mapped gene, all available chromosome rearrangements, and selected multiply mutant stocks for genetic mapping. Requests for strains should include a brief statement of the research or training activity for which the stocks are intended. Recipients are asked to acknowledge the CGC, which is supported by NIH's National Center for Research Resources, in publications resulting from use of the strains and to provide the CGC with reprints of those publications. The CGC also provides information about *C. elegans*, largely through the publication and distribution of a newsletter, the *Worm Breeder's Gazette*. Inquiries should be addressed to:

Theresa L. Stiernagle, Curator  
Caenorhabditis Genetics Center  
250 Biological Sciences Center  
University of Minnesota  
1445 Gortner Avenue  
St. Paul, MN 55108-1095

### CALL FOR PAPERS

The Fourth Conference  
on the Extracellular Matrix of  
the Reproductive Tract  
June 24 to 27, 1996  
Bad Waldeck, Germany

Registration and Conference Fee: \$750.00. To register, please contact: **R. Osmers, M.D., Department of Obstetrics/Gynecology, University of Göttingen, Robert-Koch-Strasse 40, 37075 Göttingen, Germany**.

**P. C. Leppert, M.D., Ph.D.**, U.S. liaison to organizing committee.

### CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain the Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Dr. D. Chauncey, Program Director, Accelerated Program, The New England College of Optometry, Room S, 424 Beacon Street, Boston, MA 02115**.

## POSITIONS OPEN

### UNIVERSITY OF TORONTO Fellowship Opportunities in Immunology Pathology and Transplantation

**POSTDOCTORAL POSITIONS** available immediately with a multidisciplinary group investigating inflammatory mechanisms of organ injury. We offer an excellent environment for training in cell biology and molecular biology as applied to the study of cytokines, leukocyte, and endothelial cell adhesion and coagulation in inflammation. Please send curriculum vitae with names of three references to: **Dr. Thomas B. Issekutz, The Toronto Hospital, Conacher Research Wing 2-855, 101 College Street, Toronto, Ontario M5G 2C4 Canada**. FAX: 416-597-9749. Email: [tissekutz@torhosp.toronto.on.ca](mailto:tissekutz@torhosp.toronto.on.ca).

A **POSTDOCTORAL POSITION** in the Department of Cell Biology and Medicine is available to study the molecular basis for intestinal epithelial differentiation and transformation (*Cell* 83, 493-501, 1995). Experience in cell culture, advanced molecular biology techniques and eicosanoid biochemistry is preferred. Send a letter delineating your research interests with curriculum vitae and have three letters of reference sent to: **Raymond N. DuBois, M.D., Ph.D., Department of Medicine/MCN C-2104, Vanderbilt University Medical Center, Nashville, TN 37232-2279**. Email: [duboisrn@ctr.vax.vanderbilt.edu](mailto:duboisrn@ctr.vax.vanderbilt.edu).

### RESEARCH ASSOCIATE

A world leading biotechnology company seeks the following professional to work in California.

Qualified candidates will have an A.A. degree with a background in Animal Science and one to three years of experience in the pharmaceutical industry working with *in vivo* models. Animal handling techniques are required. Knowledge of biochemistry, basic bench top skills and experience in haematopoiesis are preferred.

For immediate consideration, please send résumé including salary history to: **Personnel Department, Job Code: LAB2, 1524G Cloverfield Boulevard, Santa Monica, CA 90404**. Principals only, please.

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### RESEARCH ASSOCIATE LANDSCAPE ECOLOGY

Opening available for a landscape ecologist (M.S. or Ph.D. level) with expertise in GIS, remote sensing, and/or simulation modeling of primary productivity and population viability to do studies in Greater Yellowstone. Position is contingent upon funds. Contact: **Dr. Andrew Hansen, Biology Department, Montana State University, Bozeman, MT 59717**. Telephone: 406-994-6046; Email: [UBIAH@msu.oscs.montana.edu](mailto:UBIAH@msu.oscs.montana.edu).

## COURSES & TRAINING

### GRADUATE STUDIES IN MOLECULAR BIOPHYSICS AND BIOCHEMISTRY YALE UNIVERSITY

The Ph.D. PROGRAM IN MOLECULAR BIOPHYSICS and BIOCHEMISTRY (MB&B) is designed to prepare students for careers as independent investigators in the broad area of molecular and structural biology. The faculty have diverse interests including: control of the cell cycle and animal development; structure and function of proteins and nucleic acids; catalytic RNAs and RNA processing; signal transduction in plants and mammals; protein folding; mechanisms of transcription, replication, transposition, and recombination; cell motility; molecular immunology; regulation of metabolism; and the application of advanced computational methods to the study of macromolecules. Researchers in the MB&B program are unified by a common desire to understand biological phenomena at the molecular level, whether through the use of genetic, biochemical or structural approaches.

For further information contact:

Amelia Johnson, Graduate Registrar  
Molecular Biophysics and Biochemistry  
Yale University  
260 Whitney Avenue  
P.O. Box 208114  
New Haven, CT 06520-8114  
Telephone: 203-432-5662  
Email: [mbb.grad@yale.edu](mailto:mbb.grad@yale.edu)

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## CHAIR - DEPARTMENT OF BIOLOGY

Applications are invited for the position of Chair of the Biology Department at the University of Evansville to begin June 1996. Applicants should have a strong commitment to teaching and the independent university tradition. Teaching responsibilities include cell biology, introductory biology, and an advanced course in the successful applicant's area of expertise. Interest and experience in interdisciplinary studies are important. The candidate will be expected to develop a research program involving undergraduate students, advise biology students, serve on the premedicine advisory committee, and engage in professional development and University service. Duties of the Chair include administration of departmental affairs, coordination with other academic and administrative units, development of the department, and leadership in terms of scholarship and teaching. The Chair serves on a faculty, tenure-track appointment; Ph.D. is required; salary is commensurate with qualifications and experience.

Applicants should send a curriculum vitae, copies of undergraduate and graduate transcripts, a statement describing commitment to undergraduate teaching and research, a statement describing administrative experience, and three letters of reference to: **Karen Ott, Chair, Department of Biology, University of Evansville, 1800 Lincoln Avenue, Evansville, IN 47722.** Review of applications will commence March 1, 1996 and continue until the position is filled.

The University of Evansville is an independent, church-related, selective admissions University located in a city of 135,000 in southwestern Indiana. It offers a comprehensive program of instruction including liberal arts and sciences, engineering, business, nursing, physical therapy, and education. Enrollment numbers approximately 2,700 full-time students. The University also includes a study abroad campus in England, Harlaxton College.

*The University of Evansville operates under a nondiscriminatory policy with regard to race, color, religion, national origin, gender, age or disability.*

## THE J. DAVID GLADSTONE INSTITUTES University of California, San Francisco

### The Institute of Cardiovascular Disease

#### CHEMOKINES

#### Dr. Israel F. Charo, M.D., Ph.D.:

A Postdoctoral position is available at the Gladstone Institutes in San Francisco in the laboratory of Dr. Israel F. Charo to pursue studies of the receptors for MCP-1, MIP-1 $\alpha$ , and related chemokines. Current projects are focused on the role of chemokines/receptors in atherosclerosis (using knockout mice), molecular mechanisms of leukocyte chemotaxis and signal transduction, and suppression of HIV infection by chemokines. Strong background in molecular biology is required. Address inquiries to: H.R.-C95-063, P.O. Box 419100, San Francisco, CA 94141-9100, or fax (415) 826-3708.

### The Institute of Virology and Immunology

#### Positions available in the labs of:

#### Mark A. Goldsmith, M.D., Ph.D.

*Postdoctoral Fellowship;* (1) Study structure/function relationships in cytokine receptors that regulate growth, differentiation and function of lymphocytes. Will use molecular and biochemical approaches to investigate mechanisms of specificity and receptor subunit sharing in transmembrane signaling. May employ tissue culture, *in vitro* and *in vivo* model systems of normal and diseased states. (2) Study interactions between lymphotropic viruses and receptor-dependent signal transduction pathways in target cells. Will use tools of molecular virology and immunology to investigate the contributions of transduced cellular genes to the viral life cycle and pathogenicity, as well as the influences of infection on normal cellular signaling and regulation. May employ both tissue culture and animal models. Address inquiries to: H.R.-V96-004, P.O. Box 419100, San Francisco, CA 94141-9100, or fax (415) 826-3708.

## MICHIGAN STATE UNIVERSITY SEA LAMPREY RESEARCH POSITION TENURE-TRACK, ASSISTANT/ASSOCIATE PROFESSOR

The Department of Fisheries and Wildlife at Michigan State University invites applications for a 12-month, tenure-track position, at the assistant/associate professor level, specializing in the research and management of sea lampreys in the Great Lakes. The Ph.D. is required and preference will be given to applicants with demonstrated, strong quantitative skills and background in fisheries ecology, behavior or physiology. Experience in designing and undertaking successful collaborative research, applying quantitative methods, and guiding a research team is required, as is evidence of working effectively with state, federal, and private organizations, obtaining research grants, and publishing findings. Primary responsibilities include: conduct research aimed at improving methods of sea lamprey control in the Great Lakes; cooperate with Great Lakes Fishery Commission and the National Biological Service in conducting research on sea lampreys and their management; develop and teach a graduate-level course in area of expertise, participate in a partnership research program, faculty committees, professional service and extension programs, and advise students.

APPLICATION DEADLINE: MARCH 1, 1996, or until a suitable candidate is found. Salary is competitive and commensurate with education, experience, and demonstrated ability. Interested persons should submit a) a letter of application stating professional goals and objectives, b) a current curriculum vitae with supporting materials, c) transcripts, and d) three letters of reference to Robert Batie, Search Committee Chair, Department of Fisheries and Wildlife, 13 Natural Resources Building, Michigan State University, East Lansing, MI 48824-1222. Telephone: 517-355-4479; FAX: 517-432-1699; E-mail: [rbatie@msu.edu](mailto:rbatie@msu.edu)

*Michigan State University is an equal opportunity/affirmative action employer. Minorities and women candidates are encouraged to apply. Handicappers have the right to request and receive reasonable accommodation.*



## MEDICAL FACULTY POSITION

The USC/Norris Comprehensive Cancer Center at the University of Southern California School of Medicine has created a new tenure track faculty position to establish a laboratory-based, but interdisciplinary research program, centered around the molecular biology/genetics of breast cancer etiology, progression and prevention. The research program will take advantage of the rich racial-ethnic diversity of Los Angeles County to fully understand the reasons for differences in breast cancer incidence and mortality among the major racial-ethnic groups comprising the Los Angeles population.

Candidates will be considered for any faculty-rank in the appropriate department of the School of Medicine, with salary commensurate with rank and experience. New state-of-the-art research facilities and start-up research support are available to the successful candidate. An M.D. or Ph.D. with laboratory experience is required. For M.D.s, clinical care opportunities are available at the Norris Cancer Hospital and other USC-affiliated hospitals. USC is an equal opportunity employer. Interested candidates should send a curriculum vitae and names of three references to the following address by February 15, 1996:

### USC/NORRIS COMPREHENSIVE CANCER CENTER

#### BREAST CANCER RESEARCH PROGRAM

1441 EASTLAKE AVENUE ROOM 803

LOS ANGELES, CA 90033

PHONE (213) 764-0802 FAX (213) 764-0103

## R&D OPPORTUNITIES AVAILABLE IN DIAGNOSTICS

Boehringer Mannheim corporation in California has excellent opportunities for Biochemists/Chemists in the following areas:

### New Assay Feasibility

This position will be responsible for the demonstration of new immunoassay feasibility in a team environment. You will develop critical reagents by conjugations, modifications, and purifications of biological and organic chemicals. You will also develop/optimize immunoassays and characterize assay performance. BS/MS/PhD degree with 4-10 years of lab experience in protein chemistry and immunoassay development is required. You must be analytically oriented and have hands-on experience in chromatographic, electrophoretic, spectrometric and immunochemical methods. (Ref: NAF)

### Product Support

This position is responsible for the investigation and resolution of product performance and/or manufacturing issues in a team environment. Activities include investigation of product related problems, identification of causes and solutions, and implementation of appropriate process changes. The successful candidate must have excellent laboratory, analytical and communication skills. Previous relevant experience in immunodiagnosics, immunoassay development or manufacturing process development is desirable. (Ref: PS)

### Product Transfer

This position is responsible for transferring new and reformulated products from R&D to Operations, assisting in identifying/implementing process improvements and supporting scale-up of new products/procedures. Requires a PhD/MS/BS degree in a scientific discipline with a minimum of 6 years lab experience in the diagnostics/pharmaceutical industry, including a background in the development of chemiluminescence and fluorescence immunoassays with emphasis on heterogeneous assays. (Ref: PT)

### Development

Chemists at varying levels are invited to inquire about positions within our R&D groups which focus on developing immunoassay products for Infectious Disease and other Therapeutic Drug Monitoring Systems. Participation will involve review and interpretation of scientific literature, laboratory investigations, program planning and interaction with other departments in support of the program. You will be responsible for the design, development, execution, and implementation of scientific research and for evaluating ideas for application to projects that lead to new or improved products or processes. Requires a BS/MS/PhD in a scientific discipline with a minimum of 3+ years immunoassay development experience in the diagnostics or pharmaceutical industry. (Ref: DMT)

Competitive salary, benefits and relocation allowance provided.

For consideration, please forward your CV with salary requirements to the Human Resources Department at Boehringer Mannheim Corporation, 2400 Bisco Lane, P.O. Box 4117, Concord, CA 94524-4117 or fax your resume to (510) 674-1680. Please include the reference code. Principals only please. EOE

## PRE- AND POST-DOCTORAL FELLOWSHIPS IN COMPUTATIONAL BIOLOGY

The University of Pennsylvania has established an interdisciplinary training program for PhD students and postdoctoral researchers in computational biology. Areas of interest include (but are not limited to):

- Biological databases and informatics
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- Physical and genetic mapping
- Statistical methods in population biology
- Discrete algorithms and combinatorial optimization in biology

We are particularly interested in individuals with experience in molecular biology or phylogenetic analysis, but whose training in computer science and/or quantitative analysis extends beyond routine use of applications software. Outstanding computer scientists with demonstrated interest and training in the biological sciences will also be considered.

The research training program provides core training in molecular biology and genetics, discrete algorithms, mathematical modelling, and probability and statistics, so that important biological problems can be addressed effectively through a collaborative effort between researchers in these different fields. Advanced training includes both seminars and laboratory research opportunities, drawing on expertise of the Penn faculty, visiting scholars, and colleagues in the pharmaceutical and biotechnology industry. Further information may be obtained from: <http://www.cbil.upenn.edu/UPCB>

An attractive stipend is provided for student and post-doc support, including health, travel, and equipment benefits. Applicants must be US citizens or permanent residents. Interested individuals should send a CV, brief statement of research interests and long-term goals, 3 letters of recommendation, and any other relevant information to:

**Dr. Susan Davidson, Dept. Computer and Information Sciences, 200 South 33rd Street, University of Pennsylvania, Philadelphia, PA 19104-6389**

*The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer, and applications from women and minorities are strongly encouraged.*

## ASSISTANT PROFESSOR OF PHARMACY AND PHARMACEUTICAL CHEMISTRY (TENURE TRACK) DEPARTMENT OF PHARMACY UNIVERSITY OF CALIFORNIA SAN FRANCISCO

The Department of Pharmacy invites applications for an Assistant Professor. Applicants should have a Ph.D. with research experience combining advanced techniques at the cutting edge of molecular and cellular biology together with physical chemical and/or bioengineering sciences as applied to drug delivery and biotechnology. Primary research may be in: 1) Biophysical, biochemical or molecular biological aspects of gene delivery; 2) Molecular biology, biochemistry or biophysics of membrane transport; 3) Novel biomaterials design or interactions with the biophase; 4) Self-assembling systems for biomedical applications.

Teaching responsibilities will be in professional curriculum and in graduate and elective courses in topics related to biotechnology and drug delivery.

Send curriculum vitae, three letters of reference, a summary of current research, and a concise outline of future research by March 12, 1996 to:

FRANCIS C. SZOKA, JR., PH.D.  
DEPARTMENT OF PHARMACY  
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SCHOOL OF PHARMACY  
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**Qualifications:** Advanced degree in physics or electrical engineering and prior experience in the development of RF coils, including array coils.

**Junior Engineer/Senior Electronics Technician**

**Responsibilities:** Construction and testing of RF circuits and coils.

**Qualifications:** Prior experience with electronics and schematic entry tools and experience in PCB layout.

Letters of interest, together with curriculum vitae, should be sent to:

**Leon Kaufman, Ph.D.**  
**Toshiba America MRI, Inc.**  
**400 Grandview Drive**  
**South San Francisco, CA 94080**

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Forest Laboratories, Inc.  
909 Third Avenue  
New York, NY 10022-4731

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Minority International Research Training (MIRT)  
-Study in Belize, Cameroon, Peru.

- > From the U.S. Department of Education, financial need based fellowships:

> \$ 15,500/year (approx) for 25 MA/MS students

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(GAANN) program aims to increase the number of women and people of color in the sciences.

Write: Professor Frank Bayliss  
Office of Minority Opportunities  
Department of Biology  
San Francisco State University  
San Francisco, CA 94132  
e-mail: fbayl@sfsu.edu

Call: Trish Anderson  
Tel: (415) 338-1305  
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**Dr. Thomas F. Tedder**  
Duke University Medical Center  
Department of Immunology  
Box 3010 Durham, NC 27710

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## SENSORY NEUROPHYSIOLOGIST

A tenure-track researcher is sought at the rank of Assistant or Associate Professor in the Pain Research Group of the Department of Anesthesia Research Laboratories, Brigham and Women's Hospital, Harvard Medical School. The Anesthesia Research Laboratories are comprised of 13 principal investigators working on inflammation, ischemia-reperfusion damage, muscle mechanics and acute and chronic pain mechanisms and therapeutics. The hospital is adjacent to Harvard Medical School and the laboratories attract a complement of postdoctoral fellows and medical and graduate students.

The candidate should be capable of single unit recording of either peripheral or central sensory neurons and should have a broad background in pain research. Particular interest in the mechanisms underlying chronic neuropathic pain is emphasized and experience in clinical measures of pain is welcomed.

This is a position for a highly interactive individual who wishes to collaborate with six faculty of the Pain Research Group who use neurobehavioral, electrophysiological and molecular biological approaches to study pain mechanisms collaboratively and to develop novel therapeutics. Women and minority candidates are especially encouraged to apply. Send resumé, including names of three references (no letters please) to:

**Professor Gary R. Strichartz, Ph.D.**  
Anesthesia Research Laboratories  
Brigham and Women's Hospital  
75 Francis Street  
Boston, MA 02115

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## Cellular and Molecular Physiology

### Department of Physiology and Biophysics

### The University of Iowa College of Medicine

Applications are invited for a tenure-track position at the ASSISTANT PROFESSOR level in an expanding research-based department. We are interested in individuals studying fundamental problems in vesicular and protein trafficking utilizing molecular and cell biological approaches. Candidates should be prepared to establish an independent research program complementing areas of existing departmental strength which include developmental biology, molecular endocrinology, membrane protein and ion channel structure/function. Excellent opportunities exist for participation in established centers and interdisciplinary programs in Cancer, Cardiovascular, Cystic Fibrosis, Diabetes/Endocrinology, Gene Therapy, Genetics, Immunology, Molecular Biology and Neuroscience. Substantial start-up support is available for equipment, personnel and supplies. Minimum requirements include Ph.D. and/or M.D. degree and at least two years of relevant postdoctoral training. Screening will begin March 1, 1996. Please send a curriculum vitae, statement of research plans, several representative publications and three letters of recommendation to:

**Jeffrey E. Pessin, Ph. D.**  
Cellular and Molecular Physiology  
Search Committee  
Department of Physiology and Biophysics  
The University of Iowa College of  
Medicine  
Iowa City, IA 52242-1109

*The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and Minorities are strongly encouraged to apply.*



# BIOINFORMATICS at Schering-Plough



The Schering-Plough Research Institute is expanding its program in Bioinformatics - creating excellent opportunities for scientists with experience in DNA/Protein sequence analysis, database searches and homology motif recognition to establish and lead a new bioinformatics facility. This bioinformatics resource center will collaborate closely with molecular biologists in the application of informatics tools to new and ongoing projects in drug discovery.

The successful candidates will have a PhD and 2 or more years of bioinformatics experience in a research setting along with strong interpersonal and communication skills. Exceptional individuals with an MS degree are also encouraged to apply.

We offer an excellent compensation package including a competitive salary and comprehensive benefits. For prompt, confidential consideration, we invite you to forward a resume with salary requirements to: Human Resources-BP, K-15-1, MS#1255, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033-0539. We are an equal opportunity employer. We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.



**Schering-Plough  
Research Institute**

*Using Science For Human Advantage*

## SENIOR PHARMACOLOGIST

NeXstar Pharmaceuticals, an integrated drug discovery, delivery and development company based in Boulder, Colorado is a world leader in combinatorial chemistry and liposomal drug delivery. We currently have an excellent opportunity available for a Senior Pharmacologist.

The ideal candidate will have a Ph.D., 7-10 years experience in cancer biology, and specific hands-on experience in conducting studies with rodent cancer models including nude mouse xenografts of human tumors.

The selected candidate will be a co-team leader with a counterpart in molecular biology for the Company's cancer biology program. This team has responsibility for formulating scientific direction and conducting in vitro and in vivo experiments with potential new anti cancer therapeutic compounds.

In addition to being a part of a growing and exciting company, you will have all the advantages of living in Boulder, Colorado — stunning scenic beauty, a healthy lifestyle, stimulating University atmosphere, diverse culture and superior educational standards. Send your c.v. now to

**NeXstar Pharmaceuticals, Inc.**  
2860 Wilderness Place  
Boulder, CO 80301  
Attn: KH  
Position #228

**NEXSTAR**

*Pharmaceuticals, Inc.*

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Equal Opportunity Employer

## POSTDOCTORAL OPPORTUNITIES

### RETROVIROLOGY-INFECTIOUS DISEASES

The successful candidate will investigate the role of RNA structure and RNA-protein interaction in viral gene expression. Experience in molecular biology, basic virology techniques including HIV, and tissue culture are essential. A strong background in RNA viruses and motivation to develop new techniques are important. You will participate in a multi-disciplinary approach to retrovirology research and be encouraged to develop external collaboration. Job number DS-PM

### MICROBIAL BIOCHEMISTRY & GENETICS - INFECTIOUS DISEASES

The successful candidate will study intrinsic mechanisms of antibiotic resistance in bacteria. You will employ the tools of molecular biology, genetics and biochemistry to explore structure function relationships of regulatory proteins that control inducible antibiotic resistance systems in *Escherichia coli*. Similar projects in gram-positive systems are also available. Candidate should have a solid background in molecular biology and an awareness of the assets available to prokaryotic systems. Strong interpersonal and collaborative skills also important. Job number DS-LS

### CARDIOVASCULAR THERAPEUTICS

A two year post-doctoral position available immediately for a candidate to join active research group to study the role of cytokines and growth factors in the response to vascular injury including cell cycle control of cellular proliferation, matrix formation and vascular remodeling. The research will be directed towards mechanistic studies in previously established primate and rodent models of angioplasty-induced injury. Particular emphasis is placed on an integrative approach utilizing molecular and cellular techniques to explore pathologic model systems. Candidate should have a Ph.D. with a strong background in vascular biology as well as molecular techniques; immunocytochemistry and in situ hybridization skills are preferred. Job number DS-JK

Qualified candidates should send their cv, referencing appropriate job number to: **Parke-Davis, Box DS, 2800 Plymouth Road, Ann Arbor, MI 48105** or via e-mail to: [resume@aa.wl.com](mailto:resume@aa.wl.com) (reference job number in subject window).



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## REGULATORY AFFAIRS

### Senior Manager and Manager

Forest Laboratories, Inc. is a growth-oriented leader in the development and manufacture of branded and generic ethical pharmaceuticals, and is listed on the AMEX.

Reporting to the Director, Regulatory Affairs, the individual sought for this exciting professional opportunity will possess a PhD or Master's in the Life Sciences and at least 5-7 years experience with a research-oriented pharmaceutical firm (specifically responsible for the development and representation of IND and NDA sections for innovative compounds). Must possess excellent written and verbal communication skills. Will manage and facilitate submission development within the company and with partners, as well as with the FDA.

Forest Labs offers competitive compensation and an excellent benefits package (401(k), profit sharing, medical/dental/life/LTD). This is an environment conducive to professional development. Please send resume (must include salary requirement for consideration) in confidence to:

Director of Human Resources, Dept. RA-126  
Forest Laboratories, Inc.  
909 Third Avenue  
New York NY 10022-4731

No telephone calls, please. We are an EOE



**FOREST LABORATORIES, INC.**

New  
York  
City  
Location



### EXECUTIVE DIRECTOR LOUISIANA UNIVERSITIES MARINE CONSORTIUM

The governing board of the Louisiana Universities Marine Consortium (LUMCON) invites applications and nominations for the position of Executive Director, chief administrative officer of the Consortium. The Consortium is an organization of Louisiana's four-year public universities and colleges, which was created to conduct and promote education in the marine sciences. The Executive Director is charged with coordinating marine science and engineering initiatives between member universities, identifying funding resources for such initiatives, promoting marine-related research and education, and availing appropriate marine center staff and resources to support all of the above. Duties include supervision and administration of activities at the Louisiana Universities Marine Center and other Consortium facilities, encompassing on-site research and education programs, research vessel operations, and financial and physical plant operations. The Executive Director represents the Consortium on local, state and national levels.

The Marine Center is located at Cocodrie on the central Louisiana coast, approximately 80 miles southwest of New Orleans. Being the largest such facility in the northern Gulf of Mexico, it provides state-of-the-art research, teaching and library facilities for faculty, students, and visiting marine scientists. The R/V Pelican, a 105' UNOLS coastal research vessel, and the 58' R/V Acadiana, in addition to a host of smaller vessels, are operated by the Consortium and based at the Marine Center.

Applicants and nominees should be doctoral-level marine-oriented scientists or engineers. Candidates should demonstrate a strong record of research accomplishment, experience in higher education programs, familiarity with extramural funding opportunities in the marine sciences, and clear leadership and administrative abilities. The letter of application should be accompanied by a statement of administrative philosophy, resume and list of references. Review of applications will begin on April 1, 1996, and will continue until the position is filled. Nominations and applications should be directed to:

Dr. Harvill C. Eaton  
LUMCON Executive Board  
Office of Research and Economic Development  
Louisiana State University  
Baton Rouge, Louisiana 70803

AN EQUAL OPPORTUNITY EMPLOYER

### Director of Research Administration University of Arkansas for Medical Sciences

This health sciences campus seeks a dynamic leader for administrative support of research and sponsored programs. A minimum of 5-10 years experience in university (including medical school) research administration as a Director or Associate Director is required; NCURA participation is expected, and CRA status is desired. Expertise and in-depth knowledge of federal rules, regulations, and policies; strong contract and grant development and administration experience; managerial and supervisory experience; computer and information management skills; a bachelor's degree in an appropriate field; and a strong service orientation are essential. Detailed acquaintance with federal and other funding sources and with technology transfer activities is important, and a relevant higher degree is an asset. The successful candidate will have excellent interpersonal and negotiating skills, a sense of excitement in new directions of university sponsored program activity, and a deep interest in and commitment to faculty services.

The Office of Research and Sponsored Program Administration serves a faculty of 800 by processing applications; maintaining data systems of proposal status, faculty interests and funding opportunities; monitoring policies such as those relating to research integrity and conflict of interest; supporting the Institutional Review Board for human experimentation and the Patent and Copyright Committee; negotiating contracts; and maintaining a program of trend analysis and publications relating to UAMS research activity. The Office works closely with Associate Deans of the colleges for other activities, including faculty development, technology transfer, clinical trial coordination, and other research support services. Other close interactions are with directors of research centers, Grants Accounting, Institutional Advancement, research administration of the affiliated institutions, and the University of Arkansas General Counsel.

UAMS, with annual external awards approaching \$50 million, consists of Colleges of Health Related Professions, Medicine, Nursing, and Pharmacy, the Graduate School, and the University Hospital. There is a vigorous Area Health Education Center program spanning the entire state, and close affiliations are maintained with Arkansas Children's Hospital, the John L. McClellan Memorial Veterans Affairs Medical Center, and other campuses of the University of Arkansas system. Located in Little Rock, the campus enjoys the advantages of a vibrant state capital along with easy access to the countryside of the Natural State.

Candidates should send a letter of interest, complete CV, and names, addresses, and phone numbers of three references by February 28, 1996, to:

Search Committee for Office of Research and Administration Director  
Office of the Vice Chancellor for Academic Affairs  
Mail Slot 541  
4301 W. Markham Street  
Little Rock, AR 72205

UAMS is an Equal Opportunity Employer. Minority and female candidates are encouraged to apply.



Chair, Department of Neurology.  
The University of California, Irvine, College of Medicine seeks candidates for the position of Chair, Department of Neurology. Candidates should be board certified in Neurology, have a solid track record in scholarly activities in clinical and basic scientific research, and have demonstrated abilities in administration. This is a state funded, tenured FTE position. A parallel search is being conducted for the position of Director of Neurosciences at UC Irvine. Send CV and names and addresses of three references to **Dr. R. T. Robertson, Chair of Neurology Search Committee, c/o Janet Nash, College of Medicine, Room 246 Irvine Hall, UC Irvine, Irvine CA 92717-3950.** *UCI is rooted in education: enriched by diversity.*

**Synaptic Pharmaceutical Corporation** has immediate openings for staff positions in our Molecular and Cell Biology Department. Successful candidates will join a multi-disciplinary team focused on the discovery of novel G protein-coupled and kinase receptors expressed in the central nervous system.

#### Electrophysiologists

Applicants should have demonstrated expertise in *Xenopus* oocyte electrophysiology and either a Ph.D. Degree with 2 years of postdoctoral experience or an M.S. Degree. Experience in expression cloning and/or second messenger systems would be beneficial. The ideal candidate will possess effective oral and written communication skills and be a highly motivated individual with primary interest in the molecular biology and pharmacology of neuropeptide receptors.

#### Molecular Biologist

Applicants should have an M.S./B.S. Degree with experience in molecular biology, experience in expression cloning would be beneficial. The ideal candidate will be a highly motivated individual with primary interest in the molecular biology and pharmacology of neuropeptide receptors.

#### Protein Biochemist

Applicants should have a Ph.D. Degree with 2 years of postdoctoral experience in protein purification and characterization, experience with protein kinase receptors would be beneficial. The ideal candidate will possess effective oral and written communication skills and be a highly motivated individual with primary interest in protein biochemistry and receptor signal transduction.



Synaptic Pharmaceutical Corporation offers excellent compensation and benefits that include a 401(k) plan and equity participation programs.

For consideration, indicate to which position you are responding and send resume in confidence to:

Human Resources Manager, Dept. 170 Synaptic Pharmaceutical Corporation, 215 College Road., Paramus, New Jersey 07652.

## Receptor Molecular Biology / Pharmacology

### Biomedical Engineer

#### NIH In Vivo NMR Research Center

Biomedical Engineering and Instrumentation Program  
National Center for Research Resources  
National Institutes of Health

Salary: \$52,867 to \$68,729 (includes 6.04% locality pay)

The NMR Center is a central intramural NIH facility for *in vivo* NMR research, equipped with a SIGMA 1.5T (upgraded with fast gradients; "EchoSpeed"), and 2.0T and 4.7T animal instruments equipped with different sets of fast, shielded gradients with maximum strength up to 100 G/cm. All instruments are linked with the NMR Center's computer facilities including SPARC20, HP, and PowerMacs.

Applicant must have strong background in computing, data processing and spin physics, including imaging. Incumbent will provide expertise in: data processing and image analysis using IDL and other software packages; and spin physics, as a basis for providing guidance to users of the facility in MR imaging and spectroscopy. Will oversee a LAN with connections to all MR instruments and participate in collaborative research to develop new methods for physiological MRI.

U.S. citizens should apply for position as GS-13, Biomedical Engineer. Non-citizens should apply for position as a Visiting Scientist. (Visiting Scientist positions are temporary positions, renewable annually by mutual agreement.)

Applications must be postmarked by February 20, 1996

To apply: Submit an SF-171, or Optional Form (OF) 612, or CV to NCRP Personnel Office; plus three references to: Building 31/Room 3B38; 31 Center Drive, MSC 2130; National Institutes of Health; Bethesda, Maryland 20892-2130; Attn: Eugene McDougal; telephone (301) 496-1524; FAX (301) 402-2110

For additional details about position, please contact Dr. Chrit Moonen at (301) 496-8140 or moonen@helix.nih.gov

### Project Manager, Custom Animal Services

Charles River Laboratories, recognized for excellence as the world leader in the biomedical research community, has a career opportunity for a Project Manager with a Bachelor's degree in the life sciences and 5-7 years of related experience. Previous experience managing rodent toxicology or oncology projects in a GLP environment a plus.

This position is responsible for the technology transfer and maintenance of major commercial projects including nude mouse xenograft transplantation, oncology and toxicology research projects. Also responsible for overseeing project support activities, directing technicians, regulatory compliance, and interacting with customers in support of such projects. Duties associated with this position also include the preparation and maintenance of Standard Operating Procedures (SOPs) and communication of the Company policies and procedures to employees. This position is based in Wilmington, MA. No relocation offered.

Please send resume with salary requirements to:

Human Resources - PM  
Charles River Laboratories  
251 Ballardvale Street  
Wilmington, MA 01887, or  
fax it to (508) 658-4150

CHARLES RIVER LABORATORIES  
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An Equal Opportunity Employer

**THE LIPOSOME COMPANY, A GROWING BIOTECH COMPANY SPECIALIZING IN LIPID- AND LIPOSOME-BASED PRODUCTS, HAVING RECENTLY RECEIVED OUR FIRST PRODUCT APPROVAL IN THE U.S., IS SEEKING INDIVIDUALS FOR THE FOLLOWING POSITIONS IN OUR RESEARCH AND DEVELOPMENT ORGANIZATIONS.**

#### Ph.D. SCIENTIST Membrane Research

Successful candidate will possess a Ph.D. in Chemistry or related field with 1-5 years' postdoctoral or industrial experience, as well as the ability to work as a member of a team supporting a drug throughout its development. Applicants should be capable of developing methods using HPLC and GC for the analysis of lipids as well as anti-cancer and anti-inflammatory drugs. Experience with fluorescent spectroscopy, NMR and DSC is desirable.  
Dept. SMR-CF

#### Ph.D. SCIENTIST Analytical Development

You will develop/validate analytical methods for liposomal drugs, and assist in developing new techniques of liposomal drug characterization. Qualified candidate will possess a Ph.D. in Chemistry or related discipline with 0-3 years' postdoctoral or industry experience, and a strong background in analytical instrumentation. Dept. SAD-Sc.

We offer a competitive compensation package. To be considered for one of these positions, please send resume, indicating dept. of interest, to: Human Resources Dept., (Dept. Code), The Liposome Company, One Research Way, Princeton, NJ 08540. EOE.



**Much of the success of Bayer Corporation, Pharmaceutical Division, is based on innovation and research. At the same time, all of our success is based on the talent and drive of our people. As an integral part of Bayer, a \$26.8 billion global leader, we have the resources to provide our employees with a supportive, state-of-the-art, multidisciplinary environment that encourages their professional growth and makes our success possible. Join our dedicated team of professionals in the following position:**

#### Sr. Associate Research Scientist

You will conduct established biochemical and pharmacological procedures. In addition, you will be responsible for the development and implementation of new methodologies. Experience with biochemical and pharmacological methods related to studies in the CNS including cell culture, receptor binding, enzyme assays, second-messenger assays, Western blots, immunoassays, spectrophotometric and chromatographic techniques in relation to drug development is required.

Applicants must possess a BS degree with a minimum of 4 years experience or an MS degree with at least two years experience in the biological sciences. Experience in CNS research and drug development in the pharmaceutical industry is required.

We offer attractive compensation and generous benefits. For immediate consideration, please forward a resume, including salary history, to: Bayer Corp., Pharmaceutical Division, Dept. ELCU, 400 Morgan Lane, West Haven, CT 06516.

No phone calls please. An Equal Opportunity Employer M/F/D/V. Bayer Corp. is committed to creating and maintaining cultural diversity within our work environment.



Pharmaceutical  
Division





### **AIDS Postdoctoral Training Positions for Minority Researchers**

The Dana-Farber Cancer Institute seeks to fill postdoctoral training positions in AIDS-related research. Background and/or experience in this area is preferred but not essential. Candidates must be U.S. citizens or nationals and commit to a minimum two-year training period. Training opportunities are available in the areas of immunology, retrovirology, and cell biology/pharmacology.

A joint appointment will be held in an appropriate department of the Harvard Medical School.

Please send CV and 3 references to:

**AIDS Postdoctoral Training Program  
Dana-Farber Cancer Institute  
44 Binney Street- LHRB 210  
Boston MA 02115**

The Dana-Farber Cancer Institute is  
an Equal Opportunity Employer

### **Senior Virologist Veterinary Infectious Disease Organization**

The Veterinary Infectious Disease Organization (VIDO) at the University of Saskatchewan is seeking a Senior Virologist to be part of a research team studying the pathogenesis of viral infection in livestock and poultry plus the development of novel vaccines. Qualified candidates will have a PhD in Molecular Virology or a related field plus at least four years post doctoral experience. The successful candidate will have strong communication, interpersonal and leadership skills as well as the ability to work in a team-based research environment. Demonstrated creativity and productivity as evidenced by a strong publication record and ability to attract competitive funding is essential.

VIDO is a non-profit research institute focusing on the study of the immunobiology of bacterial and viral infections of animals. We offer a stimulating research environment which allows for an integrated approach to research and development. Our facilities are state-of-the-art, including laboratories, animal isolation facilities and a large field station.

The salary and benefits package for this position are competitive. Interested candidates should forward a copy of their resume, including names, addresses, phone and fax numbers and E-mail addresses (if available) of three references to:

**Dr. Andrew A. Potter  
Associate Director, Science  
Veterinary Infectious Disease Organization  
University of Saskatchewan  
120 Veterinary Road  
Saskatoon, Saskatchewan S7N 5E3  
CANADA**

## **Special Advertising Supplement with Career Fair Bonus Distribution**

23 February Issue

## **Careers in Biotechnology and Pharmaceuticals**

The 23 February issue of SCIENCE will feature a special advertising supplement on careers in biotechnology and pharmaceuticals.

Plus, this issue will be distributed at the bioSCIENCE Career Fair, 1-2 March, held at the MIT campus in Cambridge, MA.

Advertisers in this issue are eligible to participate in the career fair at a discounted rate!

### **Recruitment Advertising Space Reservation Deadline: 6 February 1996**

To Advertise, Contact:

**U.S.:** Janis Crowley  
Phone: (212) 496-7704;  
Fax: (202) 682-0816.

**Europe:** Debbie Cummings  
Phone: (44) 01223 302067;  
Fax: (44) 01223 302068.

**Australia:** Call Keith Sandell  
Phone: (+61) 02 922 2977;  
Fax: (+61) 02 922 1100.

**Japan:** Call Mashy Yoshikawa  
Phone: (+81) 3 3235-5961;  
Fax: (+81) 3 3235-5852.

# **SCIENCE**



## SCIENTIST POSITIONS

JOB# 9609, #9610

Ciba's Biotechnology Research Unit (RTP) is seeking scientists to contribute to our Pharma Sequencing Group.

**Position I (Job #9609) is for a Scientist III** - The successful candidate will be an essential member of a high throughput DNA sequencing team and must possess an MA/MS degree in Molecular Biology or related field, and one (1) year of experience in large scale genomic sequence analysis or Ph.D in Molecular Biology or related field, with a focus on the acquisition and analysis of DNA sequence information. Additional duties include insuring quality of DNA sequence information via waveform and computer-assisted analysis. Will also align/manipulate/assemble DNA sequence information generated by automated sequencing.

**Positions 2 & 3 (#9610) are for Scientist I** - The successful candidates will have a BS/BA in Molecular Biology or related field, plus two (2) years of recombinant DNA experience. Must be highly organized and efficient at standard recombinant DNA techniques and familiar with a variety of molecular biology methods. These positions will be responsible for growth of bacteria, bacteriophage, and yeast. Construction of cDNA, genomic, and subgenomic random-fragment libraries with appropriate vectors. Assist with automated DNA sequencing, and with the assembly of multiple overlapping DNA fragments.

Resumes should be forwarded with a cover letter (which should include the Job# of the position of interest, #9609 or #9610), and a list of three (3) references to: Ciba Biotechnology Research Unit, Human Resources Department, P.O. Box 12257, Research Triangle Park, NC 27709-2257. **Resume deadline is FEBRUARY 9, 1996.**

*We are an Equal Opportunity Employer, m/f/d/v.*

a mind

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## DISCOVERY

### SCIENTIST/INFLAMMATION PHARMACOLOGIST

We seek a dedicated, self-motivated professional with at least 1 - 3 years of relevant experience in *in vitro* analyses of ligand/receptor binding assays using whole cells and membrane fractions. You should have a BS or MS in biology or pharmacology and familiarity with ligand-mediated functional responses of cells. Solid communication skills are desirable.

### BS/MS SCIENTIST Immunology

As a key member of our Immunology drug discovery team, your duties will include profiling compounds in *in vitro* cellular functional/receptor binding and enzymatic assays, working on validation studies of potential immunological targets, new assay development and routine testing of lead compounds. Data analysis and interaction with other project team members would also be expected. We require a BS or MS with 1-3 years' experience in immunology, hematology or cell biology research, and a background in cell biology, molecular biology, enzymology and basic biochemistry. The hands-on technical ability to perform T-cell functional assays, gene expression and protein presentations preferred. Familiarity with Macintosh data, graphic and word processing programs would be useful.

Pfizer offers rewarding compensation and excellent benefits.

Relocation assistance is available. Please send resume suitable for electronic scanning (i.e., eliminate italics, bullets, bolds, underlines and staples) to:

**Employee Resources, Ad# 1070, Pfizer Inc,  
Central Research Division, Eastern Point  
Road, Groton, CT 06340.**

We are an equal opportunity employer M/F/D/V.



### Distinguished Graduate Research Fellowships in Molecular Life Sciences at The Ohio State University

The Ohio State University is undertaking a major initiative in Molecular Life Sciences Research that will include at least thirty new faculty hires in the next five years. As part of this initiative, the University is supplementing its present graduate programs with a Distinguished Fellowship Program in Molecular Life Sciences. These competitive Fellowships will carry a stipend of \$18,000 per year plus full tuition authorization. The Molecular Life Sciences Predoctoral Fellows will enroll in one of the Departmental or Interdepartmental Graduate Programs in The Colleges of Medicine, Biological Sciences, Pharmacy, Veterinary Medicine, Dentistry, Mathematical and Physical Sciences, or Food, Agricultural and Environmental Sciences. The graduate programs encompass the full range of basic and applied Molecular Life Sciences Research. Research facilities on campus are excellent and include the Comprehensive Cancer Center, Biotechnology Center, Children's Hospital, and Center for Retrovirus Research. Currently more than 150 molecular life scientists perform state-of-the-art research in biochemistry, molecular genetics, neurobiology, immunology, bacteriology, virology, molecular medicine, pharmacology, and plant molecular biology. Columbus was recently named by Newsweek magazine as one of America's top cities and the quality of life on campus and in the city is excellent. Consideration of fellowship applications will begin on March 15, 1996. Inquiries and applications for graduate research fellowships should be directed to Dr. Michael Lairmore, The Ohio State University, Department of Veterinary Biosciences, 1925 Coffey Road, Columbus, OH 43210-1092. Inquiries about faculty positions should be directed to Dr. Alan Lambowitz, Department of Molecular Genetics, The Ohio State University, 876 Bioscience Building, 484 W. 12th St., Columbus, OH 43210. *The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Women, minorities, Vietnam era veterans, disabled veterans and individuals with disabilities are encouraged to apply.*

The University of California, Irvine invites applications and nominations for the position of **DIRECTOR of the WILLIAM GILLESPIE NEUROSCIENCE RESEARCH FACILITY**, the first component of the Center for the Health Sciences on the UCI campus. The Director will hold a professorial appointment in an appropriate department.

The Gillespie Neuroscience Research Facility is a joint project of the College of Medicine and the School of Biological Sciences which will house collaborative, multidisciplinary investigations that further basic and clinical neuroscience research at UC Irvine. The 79,000 sq. ft. facility is designed to accommodate the research programs of 10 - 14 principal investigators, a large vivarium, and administrative support functions. The facility, currently under construction adjacent to the College of Medicine complex, will be available for occupancy in March 1997.

The Director will be responsible for recruiting 5 new tenure track faculty investigators in areas relevant and complementary to UCI's established areas of excellence in neuroscience research: brain aging, learning and memory, schizophrenia, neuropharmacology, brain imaging, developmental neurobiology, and ion channels. The Director will also be expected to provide campus leadership in the development and coordination of UCI neuroscience research programs, and to identify new initiatives and opportunities for basic and clinical investigation.

Candidates must have 1) M.D. and/or Ph.D. degrees, 2) an active and distinguished research record in a clinical or basic neuroscience discipline, 3) demonstrated administrative/leadership skills, 4) demonstrated excellence in teaching, 5) experience in securing extramural funding, 6) a commitment to the acquisition of new funding for the Facility's interdisciplinary programs, and 7) experience in working with the private sector in developing new research initiatives.

Applicants should submit a letter of interest, a curriculum vitae, and the names and addresses of three professional references to:



**Dr. Dennis Cunningham**  
Chair, Neuroscience Directorate Search  
Department of Microbiology & Molecular Genetics  
University of California  
Irvine, CA 92717.

Nominations should be sent to the same address. Applications will be accepted until an individual has been selected. The University of California is an equal opportunity employer.

**NATIONAL UNIVERSITY OF SINGAPORE  
DEPARTMENT OF PHARMACY**



Applicants with the appropriate qualifications and experience are invited to apply for teaching appointments in the following areas:

**Areas****Qualifications**

Pharmaceutical Chemistry

PhD with a basic degree in Pharmacy

Pharmacy Practice

Pharm D with postdoctoral research experience in Clinical Pharmacy

Gross annual emoluments range as follows:

Lecturer	S\$ 56,920 - 72,590
Senior Lecturer	S\$ 66,320 - 129,600
Associate Professor	S\$140,830 - 189,920
(US\$1.00 = S\$1.40 approximately)	

The commencing salary will depend on the candidate's qualifications, experience and the level of appointment offered. In addition, a 13th month Annual Allowance (of one month's salary) and an Annual Variable Component (of normally 2 months' salary) may be payable at year end, under the flexible wage system, to staff on normal contracts.

Leave and medical benefits will be provided. Other benefits may include: an end-of-contract gratuity, a settling-in allowance, subsidised housing or a housing allowance, education allowance for up to three children subject to a maximum of S\$16,425 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore. Staff members may undertake consultation work, subject to the approval of the University, and retain consultation fees up to a maximum of 60% of their gross annual emoluments in a calendar year.

All academic staff will be given a networked personal computer (Pentium or Macintosh Power PC) with access to a Cray supercomputer, UNIX hosts, departmental laser printers, a wide spectrum of software, on-line library catalogue, CD-ROM databases, Teleview, Intv and Internet.

Application forms and further information on terms and conditions of service may be obtained from:

**The Director**  
Personnel Department  
National University of Singapore  
10 Kent Ridge Crescent  
Singapore 119260

**The Director**  
North America Office  
National University of Singapore  
55 East 59th Street  
New York, N.Y. 10022, U.S.A.  
Tel: (212) 751-0331

Enquiries may also be sent through INTERNET to: PERCNC@NUS.SG, or through Telefax: (65)7783948

**Wanted: Committed, ambitious scientist.  
Must be a team player with a vision for  
the future. M.D./Ph.D., Ph.D., M.S. or  
B.S. degree necessary.**

## ***Does this describe you?***

If it does, then plan to attend the bioSCIENCE Career Fairs sponsored by SCIENCE. The bioSCIENCE Career Fairs offer the perfect opportunity for scientific professionals to meet in person with representatives from top biotechnology and pharmaceutical companies, universities, governmental agencies and institutions. You can also attend the seminar, *How to get a paper published in SCIENCE*. This exclusive seminar is offered free of charge and will be conducted by one of SCIENCE's editors.

### **1996 bioSCIENCE Career Fairs**

Cambridge, MA on the MIT Campus in Cambridge.  
March 1: 11 am - 4pm; March 1 Seminar: 11 am - 11:30 am.  
March 2: 12 pm - 4 pm.

San Francisco, CA on the Stanford Campus in Palo Alto, May 3-4.

La Jolla, CA at the Scripps Research Institute, October 4-5.

**bio SCIENCE  
CAREER FAIRS**

**For more information  
please call (202) 326-7018.**

bioSCIENCE Career Fair Information On-Line:  
<http://www.aaas.org>  
(Choose SCIENCE Classified Advertising from the menu)



FACULTY of MEDICINE  
(GLAXO WELLCOME/BRITISH LUNG FOUNDATION)

## CHAIR OF RESPIRATORY SCIENCE

The University Court invites applications for the Chair of Respiratory Science within the Department of Medicine. The post will be tenable from a date to be arranged. The Chair has been established by the British Lung Foundation with a major grant from Glaxo/Wellcome and will be accommodated in new laboratories in the University Medical School.

The University seeks to appoint to this Chair a person with a proven research record in basic cell and molecular biology relating to inflammation, cell and tissue injury and repair. The primary role of the person appointed to the Chair will be to build up a research group of the highest quality relevant to lung disease to underpin or complement existing expertise and to forge research collaborations with other top quality basic science groups.

Salary will be in the professional range.

Please quote REF: SC 690023

Informal enquiries may be addressed to Professor C Haslett  
(+44 131 536 2263)

Applications giving names, addresses, telephone numbers and fax numbers of three referees, should be lodged with

**THE SECRETARY TO THE UNIVERSITY,  
THE UNIVERSITY OF EDINBURGH PERSONNEL  
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from whom further particulars and the equal opportunities monitoring form may be obtained. Candidates from within the United Kingdom should send 16 copies of their application. Overseas applicants need send only one copy. Applications by fax (+44 131 650 6509) should be confirmed by mail.

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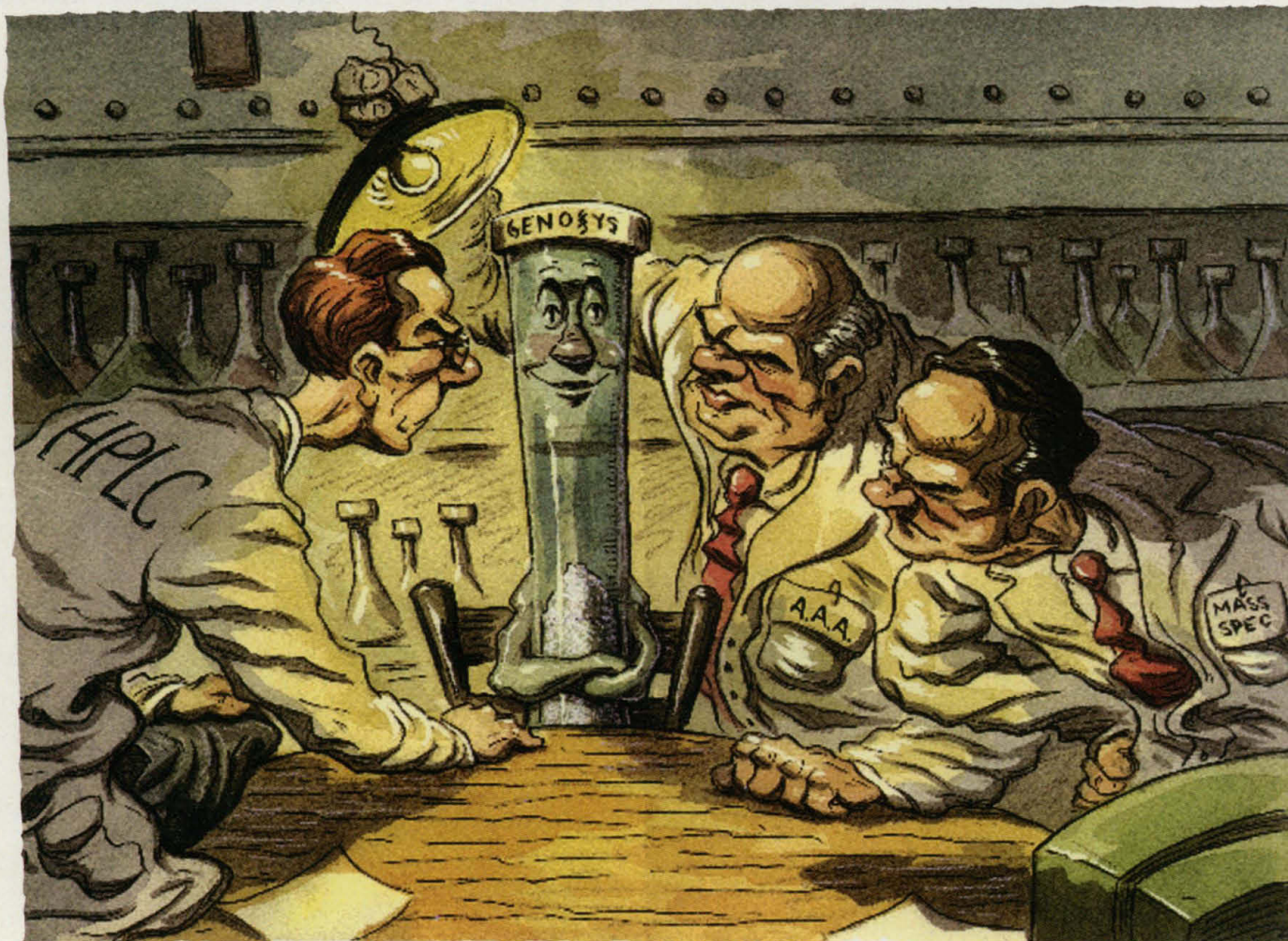
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