chemical, pharmacological, and behavioral issues are included. Papers representing posters presented at the meeting from which the book derives conclude this excellent summary of voltammetry and perfusion systems and their limitations.

As described in both volumes, voltammetry and perfusion techniques coupled with HPLC and electrochemical detection have developed significantly over the last five years and, as predicted, are providing information on the dynamics of transmitter systems that was not previously available. Many issues remain to be resolved, including electrode specificity, perturbation of brain tissue by the probes, the relationship between probe sensitivity in brain tissue and beaker calibration, and the isolation of probes by encapsulation of glia cells. However, these matters are receiving considerable attention, and congruence among results obtained is beginning to emerge. The technology is coming of age.

RICHARD W. KELLER, JR. MICHAEL J. ZIGMOND Department of Behavioral Neuroscience and Center for Neuroscience, University of Pittsburgh, Pittsburgh, PA 15260

Books Received

Adolescent Suicidal Behavior. David K. Curran. Hemisphere (Harper and Row), New York, 1987. xiv, 208 pp. \$39.95; paper, \$19.95. Series in Death Educa-tion, Aging, and Health Care. Advances in Environment, Behavior, and Design.

Vol. 1. Ervin H. Zube and Gary T. Moore, Ed. Plenum, New York, 1987. xxii, 344 pp., illus. \$45. Advances in Physiological Research. H. McLen-Information Physiological Research H. McLen-Information

nan et al., Eds. Plenum, New York, 1987. x, 505 pp., illus. \$89.50. Based on a congress, Vancouver, B.C., June 1986.

America Outside the World. The Collapse of U.S. Foreign Policy. Louis René Beres. Lexington (Heath),
 Lexington, MA, 1987. xviii, 172 pp. \$19.95.
 Animals Without Backbones. Ralph Buchsbaum et

Animals Without Backbones. Ralph Buchsbaum et al. 3rd ed. University of Chicago Press, Chicago, IL, 1987. x, 572 pp., illus. \$25; paper, \$17. Below-Replacement Fertility in Industrial Societ-ies. Causes, Consequences, Policies. Kingsley Davis, Mikhail S. Bernstam, and Rita Ricardo-Campbell, Eds. Cambridge University Press, New York, 1987. x, 360 pp., illus. \$44.50. Based on a seminar, Stanford, CA, Nov. 1985. Supplement to Population and Development Review, vol. 12 (1986). Benzopyrenes. Martin R. Osborne and Neil T. Crosby. Cambridge University Press, New York, 1987. xiv, 329 pp., illus. \$79.50. Cambridge Monographs on Cancer Research.

Cancer Research.

Biological and Toxin Weapons Today. Erhard Geissler, Ed. Oxford University Press, New York, 1986. xii, 207 pp. \$38.

Chaos in Laser-Matter Interactions. Peter W. Mi-Chaos in Laser-Matter interactions. Peter W. Mi-lonni, Mei-Li Shih, and Jay R. Ackerhalt. World Scien-tific, Singapore, 1987 (U.S. distributor, Taylor and Francis, Philadelphia). xii, 369 pp., illus. \$28. World Scientific Lecture Notes in Physics, vol. 6. Chemical Bonding Models. Joel F. Liebman and Arthur Greenberg, Eds. VCH, New York, 1986. xiv, 360 pp., illus. \$77.50. Molecular Structure and Energet-ics vol 1

chemical Demonstrations. A Sourcebook for Teachers. Vol. 2. Lee R. Summerlin, Christie L. Borg-

4 DECEMBER 1987

ford, and Julie B. Ealy. American Chemical Society, Washington, DC, 1987. x, 229 pp., illus. Spiral bound, \$19.95.

Convection and Chaos in Fluids. J. K. Bhattacharjee. World Scientific, Singapore, 1987 (U.S. distributor, Taylor and Francis, Philadelphia). xii, 243 pp., illus. \$39. **The Cuvier-Geoffroy Debate**. French Biology in the

Decades Before Darwin. Toby A. Appel. Oxford Univer-sity Press, New York, 1987. viii, 305 pp. + plates. \$35. Monographs on the History and Philosophy of Biology.

Design, Data, and Analysis. By Some Friends of Cuthbert Daniel. Colin L. Mallows, Ed. Wiley, New York, 1987. xx, 380 pp., illus. \$29.95. Wiley Series in Probability and Statistics. Dictionary of Surfactants. English/German and

German/English. Kurt Siekmann. Springer-Verlag, New Vork, 1987. 160 pp. Paper, \$39.
 Dopamine Receptors. Ian Creese and Claire M.

Fraser, Eds. Liss, New York, 1987. x, 261 pp., illus. \$70. Receptor Biochemistry and Methodology, vol. 8. The Dosimetry of Ionizing Radiation. Volume 2. Kenneth R. Kase, Bengt E. Bjarngard, and Frank H.

Attix, Eds. Academic Press, Orlando, FL, 1987. x, 374 pp., illus. \$65. Einstein and the Humanities. Dennis P. Ryan, Ed.

Greenwood, Westport, CT, 1987. xiv, 214 pp. \$32.95. Contributions in Philosophy, no. 32. From a conference, Hempstead, NY, Nov. 1979.

The Expression of Attitude. J. Richard Eiser. Springer-Verlag, New York, 1987. 86 pp. Paper, \$25. Recent Research in Psychology.

Recent Research in Psychology. Extracellular Enzymes of Microorganisms. J. Chaloupka and V. Krumphanzl, Eds. Plenum, New York, 1987. x, 216 pp., illus. \$52.50. From a sympo-sium, Bechynë, Czechoslovakia, Sept. 1986. Extraterrestrials. Science and Alien Intelligence. Ed-ward Regis Jr., Ed. Cambridge University Press, New York, 1987. x, 278 pp. Paper, \$12.95. Reprint, 1985 ed. Growing Exotic Forests. Bruce J. Zobel, Gerritt van Wyk and Pers Stall. Wiley.Interscience. New York. Wyk, and Per Stahl. Wiley-Interscience, New York, 1987. xx, 508 pp., illus. \$57.50. A Guide to the Understanding of Alzheimer's

Disease and Related Disorders. Anthony F. Jorm. New York University Press, New York, 1987 (distributor, Columbia University Press, New York). vi, 158 pp. \$32

Handbook of Thermodynamic High Temperature Process Data. A. L. Suris. English-edition editor, W. Begell. Hemisphere (Harper and Row), New York, 1987. xiv, 601 pp., illus. \$139.95. Translated from the Russian edition (Moscow, 1985). Health Professionals and Human Rights in the

Philippines. Richard P. Claude, Eric Stover, and June P. Lopez. Committee on Scientific Freedom and Responsibility, AAAS, Washington, DC, 1987. xviii, 86 pp., illus. AAAS Publication 87–6. Interstellar Processes. David J. Hollenbach and

Harley A. Thronson, Jr., Eds. Reidel, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xiv, 807 pp., illus. \$139. Astrophysics and Space Science Library, vol. 134. From a symposium, Grand Teton National Park,

WY, July 1986. Introductory Mining Engineering. Howard L. Hartman. Wiley-Interscience, New York, 1987. xvi, 633

pp., illus. \$64.95. Kangaroos. Their Ecology and Management in the Sheep Rangelands of Australia. Graeme Caughley, Neil Shepherd, and Jeff Short, Eds. Cambridge University Press, New York, 1987. xiv, 253 pp., illus. \$49.50. Cambridge Studies in Applied Ecology and Resource Management

Linear Aggregation Theory in Cell Biology. Tcr-rell L. Hill. Springer-Verlag, New York, 1987. xiv, 305 pp., illus. \$98. Springer Series in Molecular Biology. A Literature Guide for the Identification of Plant

Pathogenic Fungi. Amy Y. Rossman, Mary E. Palm, and Linda J. Spielman, APS Press, St. Paul, MN, 1987. 252 pp. Paper, \$24. Contributions from the U.S. Na-tional Fungus Collections, no. 1.

Making Soil and Water Conservation Work. Scien tific and Policy Perspectives. Daniel W. Halbach, C. Ford Runge, and William E. Larson, Eds. Soil Conserva-tion Society of America, Ankeny, IA, 1987. xii, 174 pp., illus. Paper, \$10. Based on a conference, St. Paul, MN, Oct. 1986 Oct. 1986.

Masculinity/Femininity. Basic Perspectives. June Machover Reinisch, Leonard A. Rosenblum, and Steph-anie A. Saunders, Eds. Oxford University Press, New

York, 1987. xvi, 364 pp., illus. \$29.95. Kinsey Institute Series, vol. 1. Based on a conference, 1984. **Materials and the Designer**. E. H. Cornish. Cam-bridge University Press, New York, 1987. xii, 282 pp., illus. \$59.50.

The Mono Basin Ecosystem. Effects of Changing Lake Level. Mono Basin Ecosystem Study Committee, National Research Council. National Academy Press, Washington, DC, 1987. xvi, 272 pp., illus. Paper, \$22.50

Mössbauer Spectroscopy Applied to Inorganic Chemistry. Vol. 2. Gary J. Long, Ed. Plenum, New York, 1987. xvi, 626 pp., illus. \$92.50. Modern Inorganic Chemistry

Multiple Imputation for Nonresponse in Surveys. Donald B. Rubin. Wiley, New York, 1987. xxx, 258 pp.

National Literacy Campaigns. Historical and Comparative Perspectives. Robert F. Arnove and Harvey J. Graff, Eds. Plenum, New York, 1987. x, 322 pp., illus. \$39.50

S39.50.
 Natural Toxicants in Food. Progress and Prospects.
 D. H. Watson, Ed. Horwood, Chichester, U.K., and VCH, New York, 1987. 254 pp. \$76. Ellis Horwood Series in Food Science and Technology.
 The Nature of Wilt Diseases of Plants. C. H. Beckman. APS Press, St. Paul, MN, 1987. xii, 175 pp., illus. \$24

illus. \$34

Hus, 554. Neurochemistry. A Practical Approach. A. J. Turner and H. S. Bachelard, Eds. IRL Press, McLean, VA, 1987. xviii, 277 pp., illus. \$47; paper, \$32. Practical Approach Series. Neurotoxicants and Neurobiological Function.

Effects of Organoheavy Metals. Hugh A. Tilson and Sheldon B. Sparber. Wiley-Interscience, New York,

 Pathogenicity of the Pine Wood Nematode. Mi-chael J. Wingfield, Ed. APS Press, St. Paul, MN, 1987. vi, 122 pp. Paper, \$21. Based on a symposium, Reno, NV, Aug. 1985. Peptides. Alan A. Boulton, Glen B. Baker, and Q. J.

Pittman, Eds. Humana, Clifton, NJ, 1987. xx, 489 pp., illus. \$69.50. Neuromethods, no. 6. Perceptual Development in Early Infancy. Prob-

lems and Issues. Beryl E. McKenzie and Ross H. Day, Eds. Erlbaum, Hillsdale, NJ, 1987. xiv, 302 pp., illus. \$39.95.

Pharmacologic Analysis of Drug-Receptor Interaction. Terrence P. Kenakin. Raven, New York, 1987. xiv, 335 pp., illus. \$78. Probabilistic Methods Applied to Electric Power

Probabilistic Methods Applied to Electric Power Systems. Samy G. Krishnasamy, Ed. Pergamon, Elms-ford, NY, 1987. xii, 666 pp., illus. \$125. From a symposium, Toronto, Ontario, July 1986. Proceedings, ECFA Workshop on LEP 200. (Aa-chen, F.R.G., Sept.–Oct. 1986.) CERN, Geneva, 1987. xvi, 509 pp. Paper. CERN 87–08. Proceedings of the First International Confer-ence on Industrial and Applied Mathematics (ICIAM 87) (Paris La Villette, Lune 1987). Contributions from

87). (Paris-La Villette, June 1987). Contributions from the Netherlands. A. H. P. van der Burgh and R. M. M. Mattheij, Eds. Centrum voor Wiskunde en Informatica

(Centre for Mathematics and Computer Science), Am-sterdam, 1987. 433 pp., illus. Dfl.56.80. CWI Tract, 36. **Proceedings of the Workshop on Physics at Future Accelerators**. (La Thuile, Italy, and Geneva, Switzerland, Jan. 1987.) Vol. 1. CERN, Geneva, 1987.

viii, 354 pp., illus. Processes in Cutaneous Epidermal Differentiation. I. A. Bernstein and T. Hirone, Eds. Praeger, New York, 1987. xii, 392 pp., illus. \$65. From a seminar, Ann Arbor, MI, July 1985.

Progress in Underwater Acoustics. Harold M. Merklinger, Ed. Plenum, New York, 1987. xvi, 839 pp., illus. \$125. From a congress, Halifax, Nova Scotia, July

The Rainbow. From Myth to Mathematics. Carl B. Boyer. Princeton University Press, Princeton, NJ, 1987. 376 pp., illus., + plates. \$40; paper, \$12.95. Reprint. 1959 ed.

Rangelands. A Resource Under Siege. P. J. Ross, P. W. Lynch, and O. B. Williams, Eds. Cambridge Univer-sity Press, New York, 1987. xvi, 634 pp., illus. \$79.50. From a congress, Adelaide, Australia, May 1984. Re-print, 1986 ed. Rational Changes in Science. Essays on Scientific

Rational Changes in Science. Essays on Scientific Reasoning. Joseph C. Pitt and Marcello Pera, Eds. Reidel, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xiv, 224 pp. \$64. Boston Studies in the Philosophy of Science, vol. 98. Translated from the Italian edition (Milan, 1985). The Rational Use of Drugs. Report of the Confer-ence of Experts, Nairobi, 25–29 November 1985. World Health Organization, Geneva, 1987. 329 pp. Paper, \$31.20.

\$31.20.

Reactions of Sulfur with Organic Compounds. M. G. Voronkov et al. Consultants Bureau (Plenum), New York, 1987. xviii, 421 pp., illus. \$79.50.

BOOK REVIEWS 1449

Rebels and Reformers of the Airways. R. E. G.

Rebels and Reformers of the Airways. R. E. G. Davies. Smithsonian Institution Press, Washington, D.C., 1987, xvi, 440 pp., ilus. \$22,50.
 Recent Advances in AIDS and Kaposi's Sarcoma.
 G. Giraldo et al., Eds. Karger, Basel, 1987, viii, 196 pp., illus. \$113,50. Antibotics and Chemotherapy, vol. 38.
 From a workshop, Sorrento, Italy, June 1986.
 Representations of Algebraic Groups. Jens Carter Latvan Academic Press Orlando EL 1987, viv.

sten Jantzen. Academic Press, Orlando, FL, 1987. xiv, 443 pp. \$59.50. Pure and Applied Mathematics, vol. 131

The Rhabdoviruses. Robert B. Wagner, Ed. Plenum, New York, 1987. xviii, 544 pp., illus. \$89.50. The Viruses

Riemann, Topology, and Physics. Michael Monastyrsky. Birkhatiser Boston, Cambridge, MA, 1987. xiv, 158 pp., illus. \$39.50. Translated from two Russians works (Part 1, Moscow, 1979) by James King and Victoria King.

Rock Mechanics. Proceedings of the 28th U.S. Symposium. (Tucson, AZ, June–July 1987.) I. W. Farmer et al., Eds. Balkema, Accord, MA, 1987. xxiv, 1240

cr et al., Eds. Balkema, Accord, MA, 1987. xxiv, 1240
pp., illus. \$55.
Scientific Excellence. Origins and Assessment. Douglas N. Jackson and J. Philippe Rushton, Eds. Sage, Newbury Park, CA, 1987. 381 pp., illus. \$28. Based on a conference, London, Ontario, April 1985.
Seed Dispersal. David R. Murray, Ed. Academic Press, Orlando, FL, 1987. xiv, 322 pp., illus. \$49.95.
Seibst-Organization. Ordnungsprozesse in sozialen Systemen aus ganzheitlicher Sicht. Gilbert J. B. Probst. Parey, Berlin, 1987. 180 pp., illus. DM 39.80. Biologie und Evolution Interdisciplinär.
Self-Disclosure. Theory, Research, and Therapy. Valerian J. Derlega and John H. Berg, Ed. Plenum, New York, 1987. xxii, 357 pp. \$39.50. Perspectives in Social Psychology.

Psychology.

Semiconductor Statistics. J. S. Blakemore. Dover, Mineola, NY, 1987. xx, 381 pp., illus. Paper, \$9.95. Reprint, 1962 ed. Serber Says. About Nuclear Physics. Robert Serber.

World Scientific, Singapore, 1987 (U.S. distributor,

Taylor and Francis, Philadelphia). x, 298 pp., illus. \$53. World Scientific Lecture Notes in Physics, vol. 10. Ten lectures intended, according to the publisher, for graduate students.

Space. Countdown to the Future. Steven D. Mitchell *et al.*, Ed. United States Space Foundation, Colorado Springs, CO, 1987 (distributor, Univelt, San Diego, CA). xii, 302 pp., illus. Paper, \$65. Based on a sympo-sium, Colorado Springs, CO, Jan. 1987. Space Expectations. Victor Wegenhoft *et al.*, Eds.

OPACE EXPECTATIONS. VICTOr Wegenhoft *et al.*, Eds. United States Space Foundation, Colorado Springs, CO, 1986 (distributor, Univelt, San Diego, CA). x, 250 pp., illus. Paper, \$35. Based on a symposium, Colorado Springs, CO, Nov. 1985.

Spectroscopy of Astrophysical Plasmas. A. Dal-garno and D. Layzer. Cambridge University Press, New York, 1987. xiv, 357 pp., illus. \$54.50; paper, \$19.95. Cambridge Astrophysics Series. Statistical Mechanics. Principles and Selected Ap-

plications. Terrell L. Hill. Dover, Mineola, NY, 1987.

xiv, 432 pp., illus. Paper, \$9.95. Reprint, 1956 ed. Statistical Physics. Gregory H. Wannier. Dover, Mincola, NY, 1987. xii, 532 pp., illus. Paper, \$10.95. Reprint, 1966 ed. Strategic Defenses and the Future of the Arms

Strategic Defenses and the Future of the Arms Race. A Pugwash Symposium. (London, Dec. 1985.) John Holdren and Joseph Rotblat, Eds. St. Martin's, New York, 1987. xx, 286 pp. \$37.50; paper, \$14.95. Structure and Physiology of the Slow Inward Calcium Channel. J. Craig Venter and David Triggle, Eds. Liss, New York, 1987. x, 281 pp., illus. \$70. Receptor Biochemistry and Methodology, vol. 9.

The Superpowers in Crisis. Implications of Domes-tic Discord. Richard J. Krickus. Pergamon-Brassey's, McLean, VA, 1987. xiv, 236 pp. \$30; paper, \$14.95. Surface and Colloid Science in Computer Tech-nology. K. L. Mittal, Ed. Plenum, New York, 1987. xiv, 444 pp. allus \$75.0 Erom a structure and an another the second structure and the second str

444 pp., illus. \$79.50. From a symposium, Potsdam, NY, June 1985.

Symmetries and Semiclassical Features of Nuclear Dynamics. A. A. Raduta, Ed. Springer-Verlag, New York, 1987. vi, 465 pp., illus. \$35.70. Lecture Notes in Physics, 279. From a school, Poiana Brasov, Romania, Sept. 1986.

Technological Prospects and Population Trends. Thomas J. Espenshade and George J. Stolnitz, Eds. Published for the American Association for the Advancement of Science by Westview, Boulder, CO, 1987. xxiv, 211 pp. Paper, \$19.95. AAAS Selected Symposium Series, 103. Based on a symposium, New York, May 1984

Treatment of Drinking Water for Organic Contam-Inants. Peter M. Huck and Peter Toft, Eds. Pergamon, Elmsford, NY, 1987. x, 383 pp., illus. \$80. From a conference, Edmonton, Alberta, April 1986.

Two-Phase Cooling and Corrosion in Nuclear Power Plants. M. A. Styrikovich, V. S. Polonsky, G. F. Hewitt. Hemisphere (Harper and Row), New York, 1987. xii, 415 pp., illus. \$105. Translated from the Russian edition (Moscow). Unconjugated Pterins in Neurobiology. Basic and

Clinical Aspects. Walter Lovenberg and Robert A. Levine, Eds. Taylor and Francis, Philadelphia, 1987. x, 218 pp., illus. \$54. Topics in Neurochemistry and Neuropharmacology, vol.

The Use and Abuse of Social Science. Frank Heller, Ed. Sage, Newbury Park, CA, 1986. x, 294 pp. \$48; paper, \$16.

Women's Work, Families, and Health. The Balanc-ing Act. Kristen M. Swanson-Kauffman, Ed. Hemi-sphere (Harper and Row), New York, 1987. x, 98 pp., illus. \$24.50. Health Care for Women International. Based on a conference, 1985.

The World of Microbes. Howard Gest. Science Tech, Madison, WI, and Benjamin/Cummings, Menlo Park, CA, 1987. xiv, 249 pp., illus. \$18.95. The World of Physics. A Small Library of the

Literature of Physics from Antiquity to the Present. Jefferson Hane Weaver. Simon and Schuster, New York, 1987. 3 vols. Vol. 1, The Aristotelian Cosmos and the Newtonian System. 889 pp., illus. Vol. 2, The Einstein Universe and the Bohr Atom. 941 pp., illus. Vol 3, The Evolutionary Cosmos and the Limits of Science. 1118 pp., illus. Each vol., \$29.95; boxed set, \$90.

Ref-11

Yes

No

Yes

No

No

No

Yes

\$195

Pro-Cite

Yes

Yes

No

Yes

Yes

Underlin-ing only

No

\$395

Sci-Mate

Yes

Yes

Yes

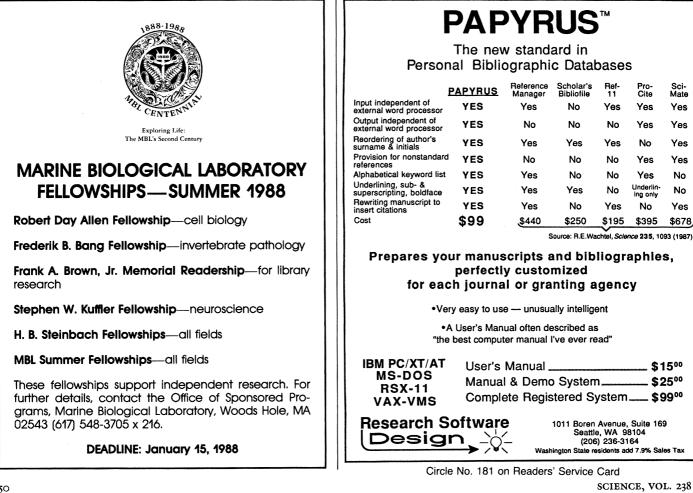
Yes

No

No

Yes

\$678



SCIENCE, VOL. 238

\$1500

... \$25°°

DRUGS **OF THE FUTURE**

Yours may be? You are an independent investigator. You have discovered a new biological or chemical compound. We are a Swiss financial institution and have the know-how and the means to develop your compound into a new drug. Please send preliminary information to:

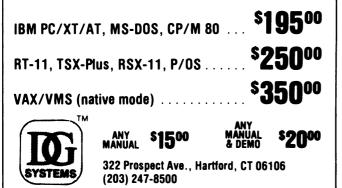
DEBIOPHARM S.A. Rue du Petit-Chêne 38 **1003 LAUSANNE, SWITZERLAND**

Circle No. 27 on Readers' Service Card

BURN YOUR REFERENCE CARDS!

REF-11 Computerizes your REFERENCES and prepares your BIBLIOGRAPHIES

- □ Maintains a data base of references
- □ Searches for any combination of authors, years of publication, reference title, publication title, keywords or abstract
- □ Formats bibliographies exactly as you want them
- □ Reads your paper, inserts citations into the paper. and prepares a bibliography of the references cited (optional)
- □ Downloads references from MedLine data bases such as NLM, BRS and DIALOG (optional)

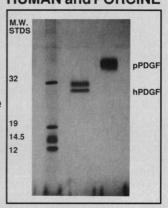


Connecticut residents add 71/2 % sales tax

Circle No. 10 on Readers' Service Card



Platelet-Derived Growth Factor (PDGF) is an extremely potent mitogen and chemoattractant. The human form of the molecule (hPDGF) is a heterodimer of two related chains (A and B) whereas the porcine molecule is a homodimer demonstrating a 70% strated by N-terminal homology to B chain of the human form. Both human and porcine PDGF bind to ACTIVITY: the same high affinity ¹H-thymidine incorporation receptor producing similar biological effects at similar concentrations.



PURITY: Greater that 95% as demonsequencing, amino acid analysis, and silver-stained gels.

The ED₅₀ for stimulation of by NR6-3T3 fibroblast for both the human and porcine PDGFs has been determined to be in the range of 1 - 3 ng/ml.

Improved processing techniques now permit NEW new, lower, much more affordable pricing. NEUTRALIZING ANTIBODY: Two purified IgGs are now available that specifically detect and neutralize PDGF. One acts on hPDGF (A-B chain) and c-sis (B-B chain), the other on pPDGF (B-B chain).

to order or to request information or technical bulletins, call (800) 328-2400 (in Minnesota call 612-379-2956). In Japan, Funakoshi Pharmaceutical Co., Ltd. Tokyo, (03) 293-2352.

Beta 2 hPDGF hTGF8 Neutralizin Anitbodie

PDGF Labeled

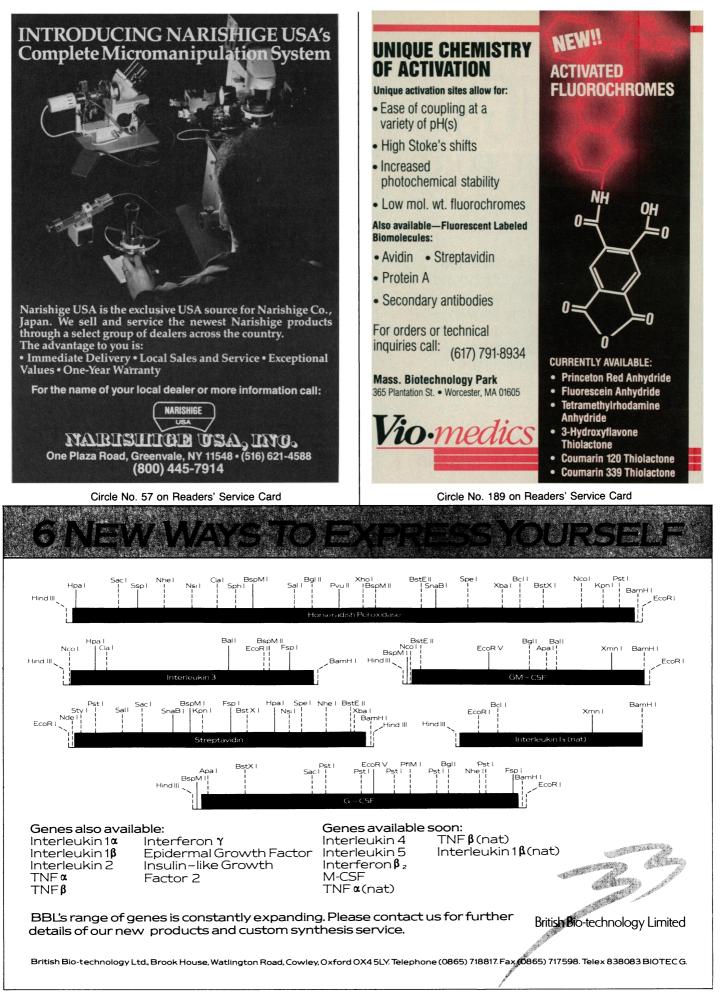
with Factors

pTGFB

FGF's

Your Source for GROWTH FACTORS R&D Systems, Inc. (800) 328-2400 614 McKinley Place N.E. Telex 750627 Minneapolis, MN 55413 Fax (612) 379-7412

Circle No. 183 on Readers' Service Card



Products & Materials

BASIC Compiler-Debugger-Interpreter

QuickBASIC 4.0 is a threaded p-code BASIC interpreter for personal computers. It can incorporate changes as fast as 150,000 lines per minute; the program can be modified and debugged without recompilation. An editor checks syntax, and commands are tested instantaneously. A program may be interrupted during execution, changed, and restarted instantly with no loss of data values. A function key initiates debugging at any time during program development; another function key provides context-sensitive help for all keywords. QuickBASIC 4.0 operates on IBM PC and compatible computers with 320 kilobytes of memory and MS DOS 2.1 or later. \$99. Microsoft. Circle 647.

Custom Peptides

Peptides with user-specified sequences of amino acids are available. The peptides can be supplied in quantities between 10 mg and 20 g. Guaranteed 99% pure, the peptides come with analytical documentation that includes sequence analysis, amino acid analysis, and a high-performance liquid chromatography chromatogram. Applied Protein Technologies. Circle 646.

Electroporation System

The Cel-Porator Electroporation System transfects mammalian and plant cells with DNA. Cell samples may be suspended in high-salt or low-salt buffers. Cells are pulsed in disposable polypropylene chambers with leakproof caps and aluminum electrodes. As many as four samples may be electroporated in sequence at varying pulse lengths and field strengths before the user need disturb the samples. Cell-Porator is available either with or without an internal power supply. From \$1199. Bethesda Research Laboratories. Circle 650.

5.25-Inch External Drive

The 525 EXTRA is an external 5.25-inch 360-kilobyte floppy-disk drive for IBM PS/2 computers. It plugs into an existing connector inside the PS/2, leaving an expansion slot free. The drive does not have its own power supply, but uses that of the host computer. It is 23 by 15 by 6 cm. 325. Delkin Devices. Circle 645.

Cryofixation Device

The CF 100 cools tissue samples for electron microscopy so quickly that ice crystals do not form. The tissue sample is cryofixed by contact with a supercooled cryogenic block under controlled conditions. The cryogenic block remains in a hydrocarbon-



free vacuum chamber until the instant of sample delivery, at which time room-temperature nitrogen or helium surrounds the block, and a pneumatic shutter is released. When liquid nitrogen is the cryogen, and copper is the cryogenic block material, cryofixation occurs more than 15 μ m deep. LifeCell. Circle 642.

Microscope Workstation

The BioVision system is an integrated imaging microscope workstation for cell, developmental, and molecular biology. The system comprises a microscope, microscope control peripherals, an image sensor, an image processor, a host computer, a storage device, a color monitor, software, and a printer. Features of the software include automated image acquisition; noise reduction; illumination correction; real-time background subtraction, averaging, and histogram processing; image enhancement through spatial and frequency domain filtering; intensity transformations; and graphics. Fluorescent, dark-field, polarized-light, phase-contrast, interference, and bright-field microscopy are possible with the workstation. Perceptics. Circle 649.

Software Reads Device Data

DADiSP Worksheet is a data analysis and display software package that can exchange data with instruments and with data acquisition and control boards that are based on the Hewlett-Packard Interface Bus, the General Purpose Interface Bus, and the IEEE-488 bus interfaces. The windowed, menudriven program can convert data from graphics windows into numbers. DADiSP Worksheet operates on 32-bit scientific and technical workstations, including the IBM PC family, the Hewlett-Packard 9000 series 300, and the Sun Microsystems Sun-2. From \$795. DSP Development. Circle 654.

Silver-Staining Kit

The PhastGel Silver Kit contains readyto-use reagents for staining proteins in 10 to 20 gels. Sensitivity is 1 to 5 ng of protein per band for iso-electric focusing and native polyacrylamide gel electrophoresis (PAGE) separations, and 0.3 to 0.5 ng of protein per band for sodium dodecyl sulfate–PAGE. Because the kit makes use of sodium thiosulfate, only proteins are stained, and the background gel remains clear. Pharmacia LKB Biotechnology. Circle 651.

Literature

Affinity Gels is a product brochure describing ready-to-use antibody affinity gels and antigen affinity gels. Organon Teknika– Cappel. Circle 659.

Technical Publication Bibliography briefly describes 30 application notes about highperformance liquid chromatography and gas chromatography and 40 notes about an evaporative mass detector. VAREX. Circle 660.

Products for Molecular Biology is a catalog of items for DNA sequencing, molecular cloning, and nucleic acid blotting, electrophoresis, and chromatography. Bio-Rad, Chemical Division. Circle 661.

Laboratory Showcase is a 40-page laboratory equipment catalog with a section featuring biotechnology products for cell culture and hybridoma, electrophoresis, and molecular biology. VWR Scientific. Circle 662.

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

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Any deadline in ad must be at least 2 weeks after date of issue in which ad appears. Also, personnel advertising is accepted only with the under-standing that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual prefer-ence. SCIENCE publishes each Friday, except the last Friday

LINE CLASSIFIED ADVERTISING DEADLINES: Thursday, 10 a.m., 2 weeks prior to issue date (mailed on issue date).

POSITIONS WANTED: 40¢ per word, plus \$4 for use of box number, per week. \$10 minimum, per week. Prepayment required. This rate is available only to individuals seeking jobs

LINE CLASSIFIED (POSITIONS OPEN, COURSES, FELLOWSHIPS, MARKETPLACE, and so forth): \$38.00 per line; \$380 minimum, per week (minimum charge covers one inch on a single column; one inch equals 10 lines of 52 characters and spaces per line). No charge for use of box number. No agency commis-sion for ads less than 4 inches. No cash discount. Prepayment required for all foreign ads. Purchase orders and/or cover letter including billing address required for all other advertising.

To ESTIMATE ad cost:

To ESTIMATE ad cost: Structure ad copy on a separate page, on lines of 52 characters and spaces. Include any desired heading. Each line of heading, and/or extra line spaces, and all partial lines (including centered reply information) are counted as full lines. Ad titles located within the text are printed in boldface caps and are only 32 charac-ters per line. In ESTIMATING the cost, multiply total lines × \$38.00 = approximate cost of ad. (This is an approximate cost ONLY: Allow for variation between estimated lines and actual typeset lines and the result-ing final cost. Purchase orders must allow for some degree of flexibility and/or adjustment.)

CANCELLATION POLICY:

NOTE: Ad cancellations made after Thursday, TWO weeks prior to issue date incur a 10% production charge. Final deadline for cancellations is 12 p.m. Tuesday, ONE week prior to issue date. Cancellations must be in writing.

Send copy for all **Positions Wanted** ads and **Line Classified** ads less than 1/6 page in size (39 lines) to:

SCIENCE Classified Advertising 1333 H Street, NW, Room 940 Washington, DC 20005 Telephone: 202-326-6555

Send copy for Fractional Display ads, 1/6 page and larger, and all Marketplace ads to:

Scherago Associates, Inc. 1515 Broedway New York, NY 10036 Telephone: 212-730-1050

Blind ad replies should be addressed as follows

Box (give number) SCIENCE 1333 H Street, NW Washington, DC 20005

POSITIONS WANTED

Clinical Research Associate-M.S. Seven years of expe rience in medical research and Phase II-III pharmaceutical clinical trials. Experience in clinical trials methodology and administration, clinical data collection and data processing. Skills include statistics and SAS program-ming. Box 184, SCIENCE.

Gross Anatomy. Ph.D., experience in teaching gross. seeks research/teaching position. Box 183, SCIENCE.

Molecular Biologist, Ph.D. 1979. Postdoctoral and 3 years of industrial research. Recombinant DNA and cloning experience. Seeks industrial research. Box 164, SCIENCE.

Research Technician: 2 years of experience with protein chemistry, including automated peptide synthesis, pro-tein sequencing, and DNA synthesis. Seeks industry or academic position in Colorado. Box 165, SCIENCE.

POSITIONS OPEN

ACADEMIC FACULTY POSITION IN BIOCHEMISTRY AND MOLECULAR BIOLOGY MAYO CLINIC, MAYO MEDICAL SCHOOL, AND MAYO GRADUATE SCHOOL OF MEDICINE

Department of Biochemistry and Molecular Biology seeks applications for a faculty appoint-ment at the assistant, associate, or full professor level, depending on qualifications. Preference will be given to outstanding molecular or developmental biologists with demonstrated expertise in somatic cell and germline gene transfer tech-niques. Highly qualified individuals with other molecularly oriented research interests are also encouraged to apply. The Mayo Clinic offers an outstanding research environment in a medical and academic setting. Send curriculum vitae, statement of research interests, and names of three references by 15 February 1988 to: Dr. Michael J. Getz, Chairman, Search Committee, Department of Biochemistry and Molecular Biology, Mayo Clinc/Foundation, Roch-ester, MN 55905. An Equal Opportunity/Affirmative Action Institution

ACADEMIC LABORATORY PATHOLO-GIST—The Department of Pathology at the University of Pittsburgh is seeking an academic pathologist with interest and experience in laboratory medicine for a full-time faculty position at the assistant professor level. The successful candidate will work with three other patholosuccessful candidate will work with three other patholo-gists in providing comprehensive laboratory services in an adult ambulatory care setting. Candidates must be Board certified or eligible in CP though eligibility/ certification in both AP/CP is also desirable. Applicants with research interests in laboratory medicine are encour-aged to apply. Responsibilities also include medical student and resident education. Inquiries will be held in strict confidence. Submit curriculum vites and bibliograstrict confidence. Submit curriculum vitae and bibliography to: University of Pittsburgh School of Medicine, Department of Pathology, 776 Scaife Hall, Pitts-burgh, PA 15261, Attention: A. Roman-Koller. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

AGRICULTURAL ANTHROPOLOGIST

The International Potato Center (CIP), announces an opening for an agricultural anthropologist at the center's headquarters

Responsibilities: The incumbent will be involved throughout the world in collaboration with natural scientists and economists. Specific responsibilities in-clude: contributing to setting CIP's and national programs' priorities; participating on interdisciplinary re-search teams; providing feedback on performance, impact, and consequences of programs; and helping strengthen national systems' social science capacity.

Salary and Perquisites: Competitive with those of

other international organizations. Qualifications: Applicants should have a Ph.D. or equivalent degree in anthropology, practical agricultural experience, 5 years of field experience, and fluency in French or Spanish. Ability to work on interdisciplinary teams with natural scientists and economists is essential.

Applications: Send résumé and references to: D. Hor-ton, Head, Social Science Department, CIP, Apar-tado 5969, Lima, PERU. Closing date: 31 January 1988

ASSISTANT PROFESSOR: Two tenure-track posimodical, dental, allied health, and graduate students, and conducting independent, externally fundable research, preferably in cardiovascular or neuro/endocrine pharma-cology, using cellular/molecular approaches. Qualifica-tions: Ph.D. in pharmacology or the M.D. degree, and 1 to 2 years of postdoctoral training and research experi-ence. Deadline for applicants is 15 January 1988. Send curriculum vitae, summary of teaching interests and research goals, three reprints, and three letters of recom-mendation to: Pharmacology Search Committee, Room 753 BMSB, University of Oklahoma College of Medicine, Oklahoma City, OK 73190. The Univer-sity of Oklahoma is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ANIMAL PHYSIOLOGY

Tenure-track, ASSISTANT PROFESSOR position, beginning fall 1988. Requires Ph.D. and ability to teach vertebrate physiology and developmental biology with laboratories, and courses for nonmajors. Research with undergraduates is encouraged. Nazareth College is an independent, liberal arts college with approximately 40 biology majors and 1400 undergraduate students. By 28 December 1987 send curriculum vitae, transcripts, and names and addresses of three references to: Dr. William Hallahan, Biology Department, Nazareth College, 4245 East Avenue, Rochester, NY 14610. An Equal Opportunity Employer.

WASHINGTON UNIVERSITY DEPARTMENT OF PHARMACOLOGY

Seeking an outstanding scientist for a tenure-track ASSISTANT PROFESSOR position. The individual must be capable of developing a strong, independent research program which will complement existing programs in cellular, molecular and neurobiology. Send curriculum vitae and a summary of research interests and plans to: E. M. Johnson, Jr., Department of Pharmacology, Washington University Medical School, 660 South Euclid Avenue, St. Louis, MO 63110. Wash-ington University is an Equal Opportunity Employer.

ASSISTANT PROFESSOR, tenure-track biology position to begin August 1988. Qualifications: Ph.D. in parasitology, microbiology, or histology, and ability to teach in these areas; prefer applicants with teaching experience in general biology. Responsibilities: teaching, advising, research. Send résumé, references (three), and statement of research interests by 15 February 1988 to: Dr. Robert V. Giacosie, Biology Chair, California State University Dominguez Hills, Carson, CA 90747.

Equal Opportunity/Affirmative Action Employer

ASSISTANT PROFESSOR: The Department of Biological Sciences, Loyola University, is seeking applications for a tenure-track position at the assistant profes-sor level with a starting date of August 1988. The successful candidate must have a Ph.D. and be strongly committed to undergraduate teaching and research and is expected to develop an externally-funded research pro-gram in his/her area of specialty. Research opportunities in freshwater, estuarine, and marine habitats are excellent in southeastern Louisiana. Applicants who utilize mod-ern methods in cellular and molecular biology are especially encouraged to apply. Salary commensurate with experience. Send curriculum vitae, official transcripts, recent publications, and three letters of reference to: Dr. J. M. Upadhyay, Chairman, Department of Biological Sciences, Loyola University, P.O. Box 104, New Orleans, LA 70118. Application deadline is 1 February 1988. An Equal Opportunity/Affirmative Action Institution.

ASSISTANT PROFESSOR OF BIOLOGY. Tenure-track position, effective 1 September 1988. Ph.D. required. Teach upper division courses in speciality as well as introductory courses. Primary interest in vertebrate physiology; additional interests in development and/or invertebrate zoology desirable. Teaching in inter-disciplinary programs possible. We encourage research involving undergraduates.

Send curriculum vitae, summary of academic training, statement of teaching and research interests and career goals, and three letters of recommendation to: Dr. John Shepherd, Biology Department, College of Liberal Arts, Mercer University, Macon, GA 31207. Women and minorities are encouraged to apply. Equal Opportunity Employer. Deadline: 22 January 1988.

ASSISTANT PROFESSOR OF PHYSICS. Marlboro College invites applications for a full-time, 9-month, tenure-track position, beginning 1 September month, tenure-track position, beginning I September 1988. Ph.D. required. Preference given to broadly trained candidates, capable of teaching a wide range of undergraduate physics courses. Additional expertise in any of the following a plus: geology; meteorology/ climatology; computer applications; electronics; astrono-my. Women and minority candidates are encouraged to the following a descenter describe the cont hy, women and minority candidates are encounged to apply. Application and complete dossier should be sent by 15 January 1988, to: Dr. John W. Hayes, Dean of Faculty, Marlboro College, Marlboro, VT 05344. Equal Opportunity Employer.

ASSISTANT PROFESSOR, Department of Biological Sciences. Southwestern Oklahoma State University is seeking applicants for a full-time position with a Ph.D. in zoology, with specialities in one or more of the following areas: Ecology, entomology, environmental sciences, population biology or related areas. Salary: mid-thirties. Submit curriculum vitae, résumé and references to: Personnel Office, Southwestern Oklahoma State Univer-sity, Weatherford, OK 73096. Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR-The Department of Biological Sciences at the University of Wisconsin-Milwaukee announces a tenure-track faculty opening for a developmental physiologist with research specialization in vertebrate neuroscience. Preference will be given to applicants whose research interests complement those of existing faculty in reproductive, cardiovascular, neural, and behavioral endocrinology. The successful candidate is expected to have postdoctoral experience and expertise in current cellular or molecular techniques, and will have teaching responsibilities in an introductory biology course and an advanced course in an area of specialization.

Applicants should provide curriculum vitae, recent reprints, a concise statement of research and teaching goals, and have three letters of recommendation sent to: Chair, Search Committee for Developmental Physiolorgist, Department of Biological Sciences, University of Wisconsin-Milwaukee, P.O. Box 413, Milwaukee, WI 53201. Closing date: 1 February 1988. The University of Wisconsin-Milwaukee is an Affirmative

Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR OF BIOLOGY, tenure-track, Ph.D. in a biological science with emphasis in comparative vertebrate morphology required. Preference given to strong commitment to undergraduate teaching, given to strong commitment to undergraduate teaching, with emphasis on student writing and problem solving skills. Duties: teaching courses in vertebrate morpholo-gy, human anatomy and general biology; scholarly activi-ty; college services. Send curriculum vitae, transcripts, and three letters of reference to: L. M. Moe, Depart-ment of Biology, California State College, Bakers-field, 9001 Stockdale Highway, Bakersfield, CA 93311-1099 by 1 January 1988. California State College is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR OF BIOLOGY. Ten-ure-track position available for September 1988. Broad experience in biology required with expertise in teaching lecture and laboratory courses in human anatomy and physiology, developmental biology, invertebrate zoolo-gy, and ecology. Botany and biostatistics experience also an asset. Please submit curriculum vitae and three letters of recommendation by 28 December 1987 to: Dr. Alberta Albrecht, Department of Biology, Manhat-tanville College, Purchase, NY 10577.

Equal Opportunity Employer

ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology, Kirksville College of Osteopathic Medicine, is seeking an individual with a Ph.D. and postdoctoral experience in physiology for a tenure-track position. Responsibilities include teaching medical physiology and establishing an independent extramurally supported research program. Although ap-plicants are not being selected from a specific research area, current research activities in the department include cardiovascular and cellular physiology. Applicants should send curriculum vitae, the names of three references and a brief description of current research activity to: Guy H. Bond, Ph.D., Chairman, Department of Physiology, Kirksville College of Osteopathic Medicine, Kirks-ville, MO 63501. Deadline for receipt of applications is 1 March 1988. The Kirksville College of Osteopathic Medi-cine is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR, PHYSIOLOGY

Southeastern College of Osteopathic Medicine (SE-COM) invites applications for faculty position in physi-ology available immediately. Candidates must have a doctoral degree, and prior teaching experience is highly desirable. Applicants should submit curriculum vitae, list of references, and statement of teaching experience to: H. Jay Lyons, Ph.D., Chairman, Department of Physiology, SECOM, 1750 NE 168th Street, North Miami Beach, FL 33162. Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSORSHIP

The Department of Cell Biology at Baylor College of Medicine invites application for a tenure-track faculty position for a molecular yeast geneticist. Candidates must have a Ph.D. or M.D. degree, with 2 to 3 years of postdoctoral experience. Preference will be given to candidates interested in pursuing a vigorous research program in the application of molecular and genetic approaches to study cell cycle control or organelle forma-tion in yeast. Space and start-up funds will be available to the successful candidate. Please send curriculum vitae and names of three recognized investigators in the relevant areas for reference to: Dr. Savio L. C. Woo, Depart-ment of Cell Biology, Baylor College of Medicine, Houston, TX 77030. Baylor is an Equal Opportunity Employer.

Pennsylvania. PHYSIOLOGY. Full-time, tenure-track ASSISTANT PROFESSOR position available. Responsibilities include restructuring and implementing the predoctoral physiology course and development of a strong research program. Current research interests relat-ed to oral physiology are desirable and applicant must be willing to interact with other basic and/or clinical scientists at the School of Dental Medicine. Preference given to applicants with teaching and research experience given oral or dental physiology. *Equal Opportunity*/Affirmative Action Employer. Send cover letter and curriculum vitae to: Office of the Dean, University of Pennsylvania School of Dental Medicine, 4001 Spruce Street, Philadelphia, PA 19104.

ASSISTANT PROFESSOR OF PLANT PA-**THOLOGY**. The Department of Botany and Plant Pathology seeks applicants for a tenure-track, 12-month position (80% research, 20% training). Individual will be expected to develop an innovative, applied and fundamental research program on pathogens and diseases of tree fruit, nut and grape crops at the population level and to teach in the plant pathology core curriculum with some participation in other courses. Ph.D. degree required and postdoctoral experience preferred. Applicants should submit curriculum vitae, statement of research interests, transcripts of all academic records, list of publications, reprints of representative publications and three letters of recommendation to: Norman I. Bishop, Interim Chairman, Department of Botany and Plant Pathology, Oregon State University, Corvallis, OR 97331. Closing date: 29 February 1988. Position avail-able: 1 July 1988. Oregon State University is an Affirma-tive Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.

The Department of Biology, College of St. Thomas, invites applications for TWO full-time, tenure-track po-sitions at the ASSISTANT PROFESSOR level: (i) BEHAVIORAL ECOLOGIST, to teach ad-

vanced courses in animal behavior and behavioral ecology, and an introductory course in ecology, adaptation, and diversity

(ii) CELLULAR/MOLECULAR BIOLOGIST, to teach advanced courses in cell biology and molecular biology, and to participate in teaching an introductory course in this same area.

Both positions also carry an expectation for develop-ment of a vigorous research program involving undergraduate students.

The College of St. Thomas is a coeducational, Catholic liberal arts college committed to the total development of the individual student. The successful applicant will have a Ph.D. and a strong commitment to both teaching and research at the undergraduate level. Send letter of application, curriculum vitae, description of research plan, and three letters of reference to: Mrs. Kathy Fell, Box 4208, College of St. Thomas, 2115 Summit Avenue, St. Paul, MN 555105. All materials must be received by 15 January 1988. An Equal Opportunity/Affirmative Action Employer.

ASSOCIATE/ASSISTANT PROFESSOR/IMMU-NOLOGIST for development of Immunology Labora-tory to support a clinical program in Biologic Response Modifiers. Position requires a Ph.D.; experience in basic immunological techniques (especially cellular cytotoxic-ity assays); minimum of 3 years of experience with various lymphokines/cytokines; and a record of scientific productivity. Send curriculum vitae, list of publications, and a summary of research interest to: Dr. Manuel Valdivieso, Associate Director for Oncology, Division of Hematology and Oncology, Wayne State Universi-ty, P.O. Box 02188, Detroit, MI 48201.

POSITIONS OPEN

ASSISTANT PROFESSORSHIPS IN PHARMACOLOGY

The University of Pittsburgh School of Medicine has The University of Pittsburgh School of Medicine has embarked upon a major program to expand the Depart-ment of Pharmacology. Two tenure-track positions are available for the next academic year (1988 to 1989). Applicants will be expected to develop a vigorous re-search program, participate in the medical and graduate programs, and to interact with existing clinical and basic science projects. Previous experience in lung and cancer pharmacology is of particular interest, although candi-dates in all areas of pharmacology will be considered. Applicants should forward a letter of application, curriculum vitae, and the names of three references to:

curriculum vitae, and the names of three references to:

Search Committee University of Pittsburgh School of Medicine Department of Pharmacology 518 Scaife Hall Pittsburgh, PA 15261

The University of Pittsburgh is an Affirmative Action/ Equal Opportunity Employer. Deadline for application is 1 February 1988.

The Department of Psychology at Harvard University anticipates an opening in psychobiology at the nonten-ured level (i.e., ASSISTANT or ASSOCIATE PRO-**FESSOR**, depending upon qualifications). Candidates should be prepared to teach at the undergraduate and graduate levels, and to have a record of research in relevant areas. The specific research area is open. Acceptable areas include, but are not limited to, the search for physiological mechanisms of learning, perception, cogni-tion, motivation, or psychopathology. Applications should include a current curriculum vitae, and applicants should ask at least three individuals familiar with their work to write directly to: Brendan Maher, Chairman, Department of Psychology, Harvard University, 33 Kirkland Street, Cambridge, MA 02138. Applications from women and members of minority groups are especially welcome. The closing date for receipt of applications is 4 January 1989. January 1988.

ASSISTANT/ASSOCIATE PROFESSOR OF PHYSIOLOGY

Applications are solicited for a tenure-track position at the rank of assistant/associate professor in the Depart-ment of Physiology, College of Veterinary Medicine, Michigan State University. Candidates must have a Michigan State University. Candidates must have a Ph.D. degree and several years of post-Ph.D. experience. Because the candidate is expected to have a demonstrated commitment to animal health research, preference will be given to those with a D.V.M. degree. All areas of physiological investigation will be considered, but the department is particularly interested in persons studying the cellular basis of hormone action. Opportunities are available for both collaborative and independent research and for undergraduate, graduate and professional stu-dent teaching. Interested individuals should submit a complete curriculum vitae and bibliography and the names and addresses of three references to: **Dr. N. E.** names and addresses of three references to: Dr. N. E. Robinson, Chairman, Search Committee, Depart-ment of Physiology, Giltner Hall, Michigan State University, East Lansing, MI 48824–1101. MSU is an Equal Opportunity/Affirmative Action Employer. Applica-tions should preferably be submitted by 1 February 1988, but will be considered until the position is filled.

BEHAVIORAL TOXICOLOGIST—A grant-supported faculty position at the rank of research instructor or research assistant professor is available in pharmacology and toxicology to conduct studies on the effects of inhaled gases and vapors on operant behavior of labora-tory animals. Two years of postdoctoral experience in behavioral toxicology/pharmacology is required. Submit curriculum vitae and the names of three references by 31 College of Virginia, Box 613, Virginia Common-wealth University, Richmond, VA 23298–0613. An Equal Opportunity/Affirmative Action Employer.

BIOENGINEER, Ph.D. with a background in lasers or arteriosclerotic disease; prefer grant experience. Faculty appointment and salary dependent upon qualifica-tions. Must have publications. Starting date: July 1988. Please contact: Teruo Matsumoto, M.D., Ph.D., Pro-fessor and Chairman, Department of Surgery, M.S. 413, Broad and Vine Streets, Philadelphia, PA 19102.

BIOCHEMICAL PHARMACOLOGIST

Pharmakon Laboratories, a rapidly expanding contract research and development organization, is seeking a biochemical pharmacologist to fulfill its growing com-mitment to service the biomedical and chemical industries. We are currently planning the expansion of our facilities to integrate biochemical bioassay services. The successful candidate must have a thorough under-

standing of biochemical principles:

Ph.D. in biochemistry or pharmacology At least 2 to 3 years of industrial experience in inflammatory diseases and/or cardiovascular research including in vitro bioassay development

Good oral and written communication skills required. Salary will be commensurate with background and experience. Applicants should send a current curriculum vitae to:

Pharmakon Laboratories P.O. Box 313 Waverly, PA 18471 An Affirmative Action/Equal Opportunity Employer

BIOCHEMIST-MEMBRANE LIPIDS: To identify and investigate cellular membrane lipid components for study of their biological and pharmacological action.

Richard J. Bing, M.D. Experimental Cardiology Huntington Medical Research Institutes 734 Fairmount Avenue Pasadena, CA 91105 Telephone: 818-440-5451

BIOCHEMISTRY—ASSISTANT PROFES-**SOR**—ACS-approved Chemistry Department seeks Ph.D. biochemist with strong background in clinical chemistry for tenure-track position. Postdoctoral and teaching experience preferred. Commitment to master's level and undergraduate teaching and research required. Send curriculum vitae, list of publications, three letters of recommendation, graduate and undergraduate tran-scripts, a detailed statement of teaching and research scripts, a detailed statement of teaching and research interests, and evidence of quality of teaching perform-ance (where applicable), to: Dr. Roger Barth, Depart-ment of Chemistry, West Chester University, West Chester, PA 19383. All application materials must be postmarked by 19 January 1988. Equal Opportunity Employer. Women and minorities are encouraged to apply.

BIOLOGIST. Tenure-track assistant professor, September 1988. Teaching includes anatomy portion of two-quarter anatomy/physiology course, comparative vertebrate anatomy, alternated with course in applicant's specialty and an introductory course in biology. Ph.D., training in human and comparative anatomy, demonstrated anatomy, demonstrated anatomy, and tradeling availables. strated research competence, and teaching experience preferred. Research specialty not limited to anatomy. Application letter, curriculum vitae, and three letters of recommendation to: D. A. Jenni, Chairman, Zoology Department, University of Montana, Missoula, MT 59812. Application deadline 16 January 1988. Affirma tive Action/Equal Opportunity Employer.

BIOLOGY EDITOR

Princeton University Press seeks an enterprising acqui-sitions editor to continue building a distinguished list of advanced monographs and general-interest books in evolutionary biology, ecology, animal behavior, and related fields, while exploring opportunities for expand-ing the program in new directions. Applicants should have broad scientific interests and proven editorial skills and be willing to travel. Previous experience in publish-ing (preferably in acquisitions) desirable. Salary com-mensurate with experience. Send résumé to: Walter H. Lippincott, Director, Princeton University Press, 41 William Street, Princeton, NJ 08540.

BIOLOGY FACULTY POSITIONS

Biologit FACULIT POSITIONS Boise State University seeks applications for two ten-ure-track assistant professor positions: (i) QUANTITA-TIVE VERTEBRATE BIOLOGIST, with expertise in biostatistics and (ii) VERTEBRATE PHYSIOLO-GIST, with expertise in avian ecophysiology, for fall 1988. Strong commitment to research and teaching required. Send letter of application, résumé, and three letters of reference to: Dr. Marcia Wicklow-Howard, Chairperson, Department of Biology, Boise State University, Boise, ID 83725 by 15 January 1988. Equal Opportunity/Affirmative Action Employer.

TWO BIOLOGY FACULTY POSITIONS

Applications are invited for two faculty positions

(i) **DEVELOPMENTAL BIOLOGIST** (tenure-track assistant professorship). Preference will be given to individuals with research interests in endocrinology and/ or neurobiology. Candidates should have postdoctoral experience, a background in the use of modern molecular techniques, and a commitment to establishing an externally funded research program. A willingness to participate in both undergraduate and graduate training pro-grams is expected. Teaching responsibilities will include the development of an advanced course in the applicant's area of specialization.

(ii) **BIOLOGY LECTURER** (non-tenure-track). Ph.D. in biology required and teaching experience at the university level preferred. Evidence of ability to teach, supervise, and coordinate lectures and laboratories in

freshman biology course sequence is a requisite. Review of applications will begin by 15 February 1988 and continue until positions are filled. Candidates should submit a letter of application, curriculum vitae, and names of three references to: **Dr. Daniel D. Jones**, Department of Biology, University of Alabama at Birmingham, University Station, Birmingham, AL 35294.

The University of Alabama at Birmingham is an Equal Opportunity/Affirmative Action Employer.

CLINICAL MANAGER

Contract laboratory in south Florida is looking for a clinical manager for over-the-counter clinical studies. Ph.D. in pharmacology or biochemistry or equivalent in O.T.C. Management, with a background in industry or contract laboratory preferred. Good oral and written communication skills required. Please send résumé and salary history to:

Hazleton Laboratories 900 Osceola Drive West Palm Beach, FL 33409 Attention: Personnel

CYTOGENETIC TECHNOLOGISTS

Positions open immediately for senior and/or supervisory technologists. Experience in prenatal diagnosis and/

or cancer cytogenetics desired. Excellent salary and benefits. Please call: 1-800-VIVIGEN or send résumé to: Kathy Richkind, Laboratory Director

c/o Vivigen 435 St. Michael's Drive Santa Fe, NM 87501



THE OREGON HEALTH SCIENCES UNIVERSITY DIRECTOR, BIOMEDICAL INFORMATION COMMUNICATION CENTER

Applications are sought for **DIRECTOR** of a new \$20 million Biomedical Information Com-munication Center dedicated to the application of information technology to the healing arts. The center will include research in the information sciences and the university library. Funds are available for building construction, equipment and research.

The director should hold a doctorate and have a record of experience, creativity and productivity in a research area such as medical informatics, automated information systems or the applica-tion of computers to medicine. Administrative experience and management skills are essential. Submit curriculum vitae, bibliography, and

three references by 15 January 1988, to: Scott H. Goodnight, M.D., BICC Search Commit-tee, L471, The Oregon Health Sciences Uni-versity, Portland, OR 97201. Late applications may be considered until the position is filled. An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

BIOLOGY POSITIONS. Assistant/associate professor in botany and molecular biology (microbiology) starting fall 1988. Tenure-track. Responsibilities include teaching, research, and grant writing. Ph.D. required. Applicants should submit curriculum vitae and names, Applicants should submit curricular vitae and names, addresses, and telephone numbers of three references by 15 February 1988 to: William E. Cooper, Department of Biology, Auburn University at Montgomery (AUM), Montgomery, AL 36193. AUM is an Equal Employment Opportunity/Affirmative Action Employer.

CHEMICAL ECOLOGIST. Assistant professor of entomology, tenure-track. Duties include developing an active research program in chemical ecology of arthro-pods and teaching in area of specialty and/or participa-tion in other classes. Qualifications include a Ph.D. in chemistry or related discipline and extensive training or postdoctoral experience in chemical ecology/natural includes the program in the program of the products chemistry. Forward: (i) curriculum vitae; (ii) transcripts; (iii) names and addresses of five referees; (iv) bibliography; (v) reprints and manuscripts in press; (vi) dissertation summary; and (vii) statement of research interests to: Dr. J. Daniel Hare, Chair, Search Com-mittee, Department of Entomology, University of California, Riverside, CA 92521. Applications will be accepted until 1 February 1988, or until a suitable candidate is identified. *The University of California is an* Equal Opportunity/Affirmative Action Employer.

CHEMIST

One-year visiting position for person trained in inor-ganic, physical chemistry, or geochemistry. Must be able to teach general inorganic chemistry, do research, lab work and fieldwork in inorganic environmental measure-ment, and teach with three other faculty—a geographer, a geologist and a biologist—in a year-long environmental studies program focusing on merine and tearestrial each studies program focusing on marine and terrestrial natu-ral history and science and the interactions of humans with natural environments. Master's degree required; Ph.D. preferred. This position is budgeted at the entry level.

To apply, send résumé, two letters of recommendation To apply, send résume, two letters of recommendation from colleagues, a statement of educational philosophy, a syllabus exhibiting your approach to teaching, and, for those with teaching experience, two letters from stu-dents, and any standardized teaching evaluation forms available to: **Hiring Dean**, **Evergreen State College**, **Olympia**, **WA 98505**. The committee begins reviewing completed applications on 15 January 1988. Applica-tions accepted until position filled. Application materials should specifically address teach-

Application materials should specifically address teaching ability, collaborative ability, disciplinary and inter-divisional competence, excellence in undergraduate teaching and abilities to work with people of diverse ages, abilities, ethnicity, and socioeconomic back-grounds. Applications from candidates with substantive

multicultural expertise or experience are preferred. Evergreen is committed to Equal Opportunity and Affir-mative Action. Preference is given to applications that enhance our efforts to employ members of protected classes.

ENDOWED CHAIR IN NEPHROLOGICAL RESEARCH

The Department of Medicine of the University of Florida, College of Medicine is seeking outstanding applicants for a recently received endowed chair in nephrological research. The endowed chair, with assets in excess of one million dollars, was established by the State of Florida's Eminent Scholars Program and was made possible by a generous contribution from a private donor. The individual who will fill the chair will have a full-time tenure-accruing faculty appointment in the Di-vision of Nephrology, Hypertension and Transplanta-tion in the Department of Medicine of the University of Florida College of Medicine. The appointee should have an M.D. or M.D./Ph.D. degree and an established, creative, and productive research program. Appropriate areas of research, among others, include molecular bioloareas of research, among others, include molecular biolo-gy and biochemistry, immunology, transport physiology, hypertension and cell biology. Appointment level and salary commensurate with education and experience. Anticipated starting date is 1 July 1988. Interested individuals should apply by 1 March 1988: James E. McGuigan, M.D., Chairman, Search Committee, Chair in Nephrological Research, Department of Medicine, College of Medicine, Box J-277, University of Florida Health Center, Gainesville, FL 32610. The University of Florida is an Equal Opportunity/Affirmative University of Florida is an Equal Opportunity/Affirmative Action Employer.

CHAIRPERSON DEPARTMENT OF PHARMACOLOGY UNIVERSITY OF CONNECTICUT HEALTH CENTER

The University of Connecticut Health Center, Farmington, Connecticut, requests applications for the position of Professor and Chairman of its Department of Pharmacology. The department consists of 11 full-time faculty positions and occupies 10,000 square feet of laboratory/office space. The faculty has well-funded research programs in an environment which fosters interactions with many biomedical and clinical disciplines.

We seek an individual with a Ph.D. or M.D., leadership qualities, and a strong commitment to and credentials for excellence in education and research. Applicants should send curriculum vitae and the names and addresses of three references to:

Dr. Robert E. Cone, Chairman Pharmacology Search Committee Department of Pathology University of Connecticut Health Center Farmington, CT 06032

Deadline for applications: 1 February 1988. An Affirmative Action/Equal Opportunity Employer M/ W/H.

CHAIRPERSON DEPARTMENT OF PHYSIOLOGY AND CELL BIOLOGY

The University of Kansas invites applications for the position of chairperson of the Department of Physiology and Cell Biology. Applicants must have an on-going productive research program in neurobiology or a related field and the ability to serve as a leader of research and educational endeavors. Demonstrated administrative ability is desirable but not required. The person selected will hold a tenured academic appointment as associate or full professor. Nominations and applications for this position are invited. Applications, including a statement of scientific goals and administrative interests, curriculum vitae, and the names of at least three references, should be sent to: Dr. W. L. Dentler, Department of Physiology and Cell Biology, University of Kansas, Lawrence, KS 66045–0046. Applications will be reviewed starting 15 January 1988. The University of Kansas is an Equal Opportunity/Affirmative Action Employer.

DEPARTMENT CHAIR: The Department of Biological Sciences at the University of Maryland Baltimore County (UMBC). The UMBC Department of Biological Sciences is seeking a distinguished scientist to serve as Professor and Chair. The Department includes 28 faculty members with 400 undergraduate majors, and 90 graduate students. The research interests of the faculty range from molecular and cellular biology to organismic and population biology. The Department offers the B.A., M.S. and Ph.D. degrees in biological sciences and applied molecular biology. The University of Maryland Baltimore County campus is located in suburban Baltimore and has a current enrollment of 10,000 students. Please send curriculum vitae, and names and addresses of at least three references to: Dr. Catherine Fenselau, Chairman, Search Committee, UMBC, Baltimore, MD 21228. UMBC is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply. Applications will be received until a suitable candidate is found.

DIRECTOR OF SCIENCE CONSERVATION INTERNATIONAL

Position available for a Ph.D. to direct development of scientific products and support activities which enhance biological conservation. Supervising a departmental staff of five to seven, the director manages a regional data center and directs project design for work in zoology, botany, ecology, and biogeography; and coordinates closely with project managers at headquarters and in the field. Planning, personnel selection, budgeting, fundraising, and interinstitutional relations are key responsibilities. Applicants should have a doctorate in natural sciences, preferably plant ecology; Spanish/English fluency; and research or conservation experience in Latin America or Caribbean. Send curriculum vitae and names of three references to: Guillermo W. Mann, Vice President for Science and Strategic Planning, Conservation International, 1015 18th Street, NW, #1002, Washington, DC 20036.

4 DECEMBER 1987

Research Scientists

A Responsive Research Environment

Pioneer new applications in Schering-Plough's rapidly expanding allergy program

Research is the well-spring of our unique achievements at Schering-Plough, resulting in products that answer the needs of the worldwide healthcare community. As a contributing member of our scientific staff, you will be working on exciting projects that will stimulate your best thinking in allergy research.

Opportunities are available to Senior Scientists (Ph.D. with 0-3 years' experience); Associate Scientists (M.S. with 2 years' experience or B.S. with 3 years' experience); and Assistant Scientists (B.S. with 1 year of experience or an M.S. degree) in the following critical areas:

■ Biochemistry

You will play an important part in the investigation of novel receptor mechanisms which may have direct bearing on allergies. Requires expertise in receptor biochemistry.

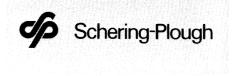
Pharmacology/Physiology

You will be part of a team exploring the role of peripheral autonomic receptors and central neurotransmitters in controlling respiratory muscle function in vivo. Requires skills in electrophysiological techniques and microiontophoretic application of agents. Experience in pulmonary physiology desirable, as well as familiarity with animal models as applied to drug discovery.

Postdoctoral Fellows

Positions available to recent Ph.D.s with an interest in investigating regulation of phospholipid and arachidonic acid metabolism in cells relevant to allergic and inflammatory disorders.

We offer a competitive salary and excellent benefits. For immediate confidential consideration, forward detailed resume, indicating position of interest, to: Louis DeMartino, Schering Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.



COMPUTER/ MOLECULAR BIOLOGY POSITION

Prestigious San Diego, California based research organization has an immediate opening for a Senior Scientific Applications Programmer/Manager. This person will provide leadership to a small scientific application programming group, and be involved with programming and maintenance of molecular biology and molecular graphics software, data bases, and documentation. Reports to Director of Biocomputing. Resources include VAX/VMS systems, Evans & Southerland graphics system, various networks, other possible workstations including Sun, Apollo, Iris, Apple Macintosh and IBM pc's. Familiarity with FORTRAN Language, Staden, University of Wisconsin, Intellegentics and NBRF programs desirable.

Salary: Commensurate with qualifications. Qualified applicants should submit a resume, 3 references and cover letter to:

Department CMB P.O. Box 881168 San Diego, CA 92108 Equal Opportunity Employer m/f/h/v

Molecular Biology

Smith Kline & French Laboratories, a leader in pharmaceutical research is seeking additional technical staff to expand its current research programs employing recombinant DNA technology in our suburban Philadelphia, PA facility.

The Department of Molecular Genetics is searching for individuals with B.S. or M.S. degrees in Microbiology, Biochemistry, Molecular Biology with experience in DNA Sequencing. They will join a group responsible for working with other scientists in the Molecular Genetics Department to coordinate, plan and execute sequencing strategies, and to analyze the data. Mastery of either Maxam-Gilbert or Sanger sequencing methods is required.

We offer an excellent compensation and benefits package as well as opportunities for personal and professional growth. For confidential review, please forward your C.V. and names of three references to Robert F. Obst, Manager, Personnel Relations, R0106, Smith Kline & French Laboratories, Research and Development Division, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.



STRATAGENE

Stratagene is an innovator in research products for biotechnology. The company is growing rapidly and is looking for the following individuals.

Polymer Chemist

The individual should have a doctorate degree in chemistry with at least four years of experience related to the synthesis of polymers for separation membranes and/or liquid chromatography resins. The individual will be expected to have a thorough knowledge of the field and must have leadership qualities.

Liquid Chromatography

The individual should have a doctorate degree in chemistry or biochemistry with at least four years of commercial experience related to the design of instrumentation for liquid chromatography. The individual will be expected to have a thorough knowledge of the field and must have leadership qualities.

Product Development – Instrumentation

The individual should have at least 6 years of commercial experience related to the design and development of analytical instrumentation for the biomedical market. The job will involve the coordination and supervision of new product development from design through manufacture. Proven business skills are essential.

Stratagene is located within an important center for biotechnology research and development. Recreational opportunities are plentiful, being walking distance from the beach.



Inquiries will be accepted in strict confidence by: Candra A. Carter Administrative Coordinator Stratagene 11099 North Torrey Pines Road La Jolla, CA 92037

BUILDING A NEW LAB?

LET THE SCIENCE FREE PRODUCT INFORMATION SERVICE PUT YOU IN TOUCH WITH THE VENDORS WHOSE PRODUCTS YOU WILL NEED.

SIMPLY WRITE US A LETTER STATING THE SPECIFICS ABOUT YOUR PROPOSED LAB AND WE WILL DO THE REST.

WRITE TO:

SCIENCE MAGAZINE NEW LAB SERVICE DEPT. 1515 BROADWAY NEW YORK, N.Y. 10036 G.D. Searle & Co., a research-oriented worldwide manufacturer and supplier of pharmaceuticals and health care products, now offers the following opportunities:

RESEARCH INVESTIGATOR GENETIC TOXICOLOGIST

This position will be responsible for designing and directing experiments in mammalian cytogenetics as well as the overall conduct of preclinical safety assessment studies within our Genetic Toxicology Group. You must be a Ph.D. (or highly expereinced M.S.) with extensive thesis research experience utilizing mammalian cytogenetics. Disciplines considered include genetics, cell biology or toxicology, though cytogenetics or genetic toxicology would be ideal. 1-2 years post-doctoral research ex-perience in mammalian cytogenetics is preferred.

RESEARCH SCIENTIST ELECTROPHARMACOLOGIST/PHYSIOLOGIST

As part of an antiarrhythmic discovery team, this individual will research cardiac ion channels (especially potassium channels) and mechanisms of drug action, and also super-vise cardiac electropharmacology studies. Requirements include a Ph.D. in electropharmacology/electrophysiology, (preferably cardiac), and 2-3 years postdoctoral training, including patch-clamping experience. General cardiovascular and/or molecular biology coursework or experience desired.

We offer a stimulating and rewarding environment with growth and challenge, excellent salary and benefits, relocation assistance and much more. Please submit curriculum vitae to: G.D. Searle & Co., Dept. DW3, 4901 Searle Pkwy., Skokie, IL, 60077. Equal Opportunity

Employer.

SEARLE

University of Pennsylvania Laser Facility, NIH Research Resource, Announces A Short Course

APPLICATIONS OF LASERS IN BIOMEDICAL RESEARCH June 15-17, 1988

Time resolved laser methods in biomedical research will be the subject of a three day course of lectures and practical experience at the NIH supported Laser Facility. The program will provide a forum for in depth discussions of the use of laser methods in research areas of interest to the participants. Arrangements for continuing access to Facility equipment and staff will be explored.

The course will be conducted by laser experts at the Facility and invited scientists who apply physical methods to biological and biophysical questions. Attendance will be limited to about 20 participants who are active investigators in biomedical fields. The course is free and financial assistance for travel is available for qualified participants.

Topics will include:

- Optical methods and instrumentation
- Time resolved fluorescence using time-correlated single photon counting and ultrafast methods
- Transient absorption, emission, and ionization methods
- Energy transfer, electron transfer, and primary visual and photosynthetic processes
- A survey of femtosecond spectroscopic methods

To apply, send a curriculum vitae, a brief description of your present research and a short statement about your interest in laser methods to: Professor R.M. Hochstrasser, Director Regional Laser and Biotechnology Laboratory University of Pennsylvania 231 South 34th Street, Philadelphia, PA 19104-6323

POSITIONS WANTED

DEPARTMENT OF BIOLOGY GEORGIA SOUTHERN COLLEGE

DEPARTMENT HEAD: The Department of Biology is soliciting applications for a Department Head to replace one who has accepted a university deanship. Primary duties of the Head are administrative and teaching, research also encouraged; 12-month position begins 1 September 1988. Qualifications: Ph.D. in biological discipline, scholarship, and teaching experience appropriate to senior rank, proven leadership and administrative skills, evidence of excellent teaching, completed applica-tion. Send (by 15 January 1988) letter of application, current curriculum vitae, and request that four letters of recommendation be sent to: Department Head Search, Department of Biology, Georgia Southern College, Statesboro, GA 30460–8042. TENURE-TRACK, ASSISTANT PROFESSORS:

Qualifications: completed Ph.D. and commitment to quality teaching and research. Postdoctoral experience preferred. Send (by 5 January 1988) current curriculum vitae, statements of personal teaching philosophy and research interests, transcripts of all college work, and names of three references, to: **The Chair (specify posi**tion), Department of Biology, Georgia Southern Col-lege, Statesboro, GA 30460-8042. ENTOMOLOGIST: Expertise in biochemical/phys-

iological research on arthropods of medical or veterinary importance. Qualified to instruct general biology, inver-tebrate zoology and other related courses. ORGANISMAL VERTEBRATE ANATOMIST OR EMBRYOLOGIST: Qualified to instruct general biology, histology, classical embryology, and animal

anatomy. PLANT

ECOLOGIST-BOTANICAL GAR-**PLANT ECOLOGIST—BOTANICAL GAR DEN DIRECTOR** with training in vascular plant systematics. Qualified to instruct general biology, bot-any, and human ecology. One-half time may be allocated for the direction of a seven-acre botanical garden. Include a brief statement of your botanical garden expertise.

The Biology Department has 15 resident and several adjunct professors, more than 200 undergraduate majors, and an active Master of Science degree program. Georgia Southern College is an Equal Opportunity Affirma-tive Action Employer and encourages applications from women and minorities

DRUG METABOLISM

Riker Laboratories, Inc., a subsidiary of 3M, is seeking a well-qualified candidate to join an active multidis-ciplinary research group in the Drug Metabolism De-partment. Qualified applicants should have a recent doctoral degree or a master's degree with several years of relevant experience in pharmaceutical science, biochemis try, biochemical pharmacology, toxicology, or related areas. The primary responsibilities will involve planning and conducting metabolic experiments with new drug candidates and other xenobiotics in laboratory animals and in humans. Some knowledge of pharmacokinetics is desirable.

Riker Laboratories Inc. is located in St. Paul, Minne-sota, and offers an innovative environment, benefits, competitive salary and opportunities for professional advancement. For confidential consideration, please send your résumé with salary history to: P. K. Capiz (no later than 31 December 1987), Staffing and Employee Re-sources/3M, Building 224-1W-02, St. Paul, MN 55144–1000. An Equal Opportunity Employer.

EUKARYOTIC GENETICIST

Applications are invited for a tenure-track assistant rofessor position starting 1 September 1988. Teaching responsibilities will include a basic genetics course, hu-man genetics and evolutionary biology, as well as shared teaching of introductory biology courses. Candidate is teaching of introductory biology courses. Candidate is expected to develop a research program, supervise mas-ter's theses, and pursue extramural funding. The Univer-sity of Wisconsin, Oshkosh has a faculty development program for funding research. Ph.D. degree required. Postdoctoral and teaching experience desirable. Send application, current résumé, transcripts, and three letters of recommendation to: Dr. M. A. Rouf, Chairperson, Department of Biology and Microbiology, University of Wisconsin Oshkosh, Oshkosh, WI 54901. Screen-ing of applicants will begin 10 December 1987 and will continue until position is filled. The University of Wiscon-sin Oshkosh is an Afirmative Action/Eaual Obportunity sin Oshkosh is an Affirmative Action/Equal Opportunity Employer.

ECOLOGY AND SYSTEMATICS PLANT ECOLOGIST

The Division of Biological Sciences at Cornell University has available a tenurable position at the level of assistant professor for someone with a broad knowledge of plant ecology. Applications are encouraged from ecosystem ecologists, physiological ecologists, and population ecologists, but others should apply. The individual will be expected to develop an outstanding research program and to participate enthusiastically in the teaching of undergraduate and graduate students. The position is available beginning September 1988. We will start reviewing applications on 15 January 1988. Applicants should send curriculum vitae, copies of representative publications, a statement of teaching interests and experience, and a description of research plans. They should also make arrangements to have three letters of recommendation sent to: P. L. Marks, Section of Ecology and Systematics, Corson Hall, Cornell University, Ithaca, NY 14853–2701.

Cornell University is an Equal Opportunity Employer Minority and women candidates are encouraged to apply.

EMPLOYMENT OPPORTUNITIES

Positions are available for tenure-track (assistant professor) **FACULTY POSITIONS** to start August 1988 for the following specializations:

for the following specializations: 1. Systems ecology (computer simulation) of terrestrial organisms or systems. Knowledge of applied ecology is desirable.

2. Virology with experience in tissue culture.

3. Phycology (marine and freshwater) and marine ecology. Ph.D. required. Responsibilities: Teach general biology as well as in specialty. Develop a strong research program with undergraduate and graduate students (M.A. level). Solicit outside funding to support research. Opportunities exist to develop programs in areas of specialization.

This university has a multicultural enrollment of about 27,000 students, and is the only public university in the San Fernando Vallev (population 1,200,000), a suburb of Los Angeles. An Equal Opportunity/Affirmative Action, Title IX, Section 504 Employer. Minorities and women are encouraged to apply.

encouraged to apply. Send letter of application, curriculum vitae, and three letters of recommendation to: Warren Furumoto, Chair, Biology Department, California State University, Northridge, CA 91220, by 1 February 1988 but no later than 1 April 1988.

FACULTY OPENING IN PHYSICS UNIVERSITY OF CALIFORNIA AT BERKELEY

The Department of Physics of the University of California at Berkeley expects to make one appointment at the assistant professor or tenured associate professor level, effective 1 July 1988, and pending budgetary approval. All fields of physics will be considered, but with some emphasis on experimental particle physics and statistical mechanics. There is a possibility of a fellowship for one year of research before assuming the regular duties of an assistant professor.

Applicants should send curriculum vitae, bibliography, statement of research interests, and list of references to: Professor P. Buford Price, Chairman, Department of Physics, University of California at Berkeley, Berkeley, CA 94720, before 1 February 1988. The University of California is an Equal Opportunity, Affirmative Action Employer.

FACULTY POSITION, ENVIRONMENTAL MICROBIOLOGY. Outstanding individual with commitment to research and graduate teaching in biotransformation of contaminants, or in soil and environmental microbiology. This appointment is part of an expanding program of interdisciplinary groundwater and environmental research. The successful candidate will develop an externally funded research program and collaborate with a staff of microbiologists and other scientists on environmental studies. Ph.D. required; appointment as assistant professor or higher. Send curriculum vitae, names, ad dresses, and telephone numbers of three references, and a one page summary of research interests to: Dr. D. R. Boone, Department of Environmental Science and Engineering, Oregon Graduate Center, 19600 N.W. Von Neumann Drive, Beaverton, OR 97006–1999. Closing date: 1 March 1988. Equal Opportunity Employer.

POSITIONS OPEN

ENVIRONMENTAL CHEMIST/SYSTEMS SCI-ENTIST. The State University of New York College of Environmental Science and Forestry seeks applicants for a tenure-track appointment to contribute chemical expertise to a major new program in Environmental Systems Science. The successful candidate will teach courses and establish an externally-funded research program. Minimum requirements are a Ph.D. in chemistry or related field and a background and interest in graduate education and research in quantitative modeling of environmental systems. The position is open at all levels, but candidates who have already demonstrated excellence in teaching and research are preferred. The successful candidate will join the 16-member chemistry department, which offers B.S., M.S. and Ph.D. programs in the areas of environmental chemistry, biochemistry, and polymer chemistry, and will hold a joint appointment in the interdisciplinary Graduate Program in Environmental Science. SUNY-CESF is an upper-division and graduate level institution with close ties to Syracuse University. Salary dependent on qualifications. Send letter of intent, including a statement of research interests, curriculum vitae, and names and addresses of three references by 1 March 1988 to: John P. Hassett, Search Committee Chairman, Faculty of Chemistry, Baker Laboratory, SUNY-CESF, Syracuse, NY 13210. Telephone: 315-470-6827.

FACULTY POSITION MCGILL UNIVERSITY DEPARTMENT OF PHARMACOLOGY AND THERAPEUTICS

The Department of Pharmacology and Therapeutics is undergoing a phase of growth and expansion and is now actively searching for a candidate with expertise in the area of molecular biology (familiarity with recombinant DNA and other molecular genetic techniques), for a newly created academic tenure-track position. The level of the position will be either assistant or associate professor commensurate with the qualifications and experience of the selected candidate. The Department is searching for an outstanding candidate involved in leading edge research with the ability to organize and develop an independent research group. The Department has a broad-based group of investigators in neuropharmacology and is also very active in the areas of cardiovascular, receptor, developmental, bronchopulmonary and reproductive pharmacology, as well as toxicology. Specialized facilities available include E/M, tissue culture, electronics, photography and advanced image analysis. Financial assistance to establish a laboratory and to purchase equipment as well as statutory relocation assistance will be provided. Applicants should apply in writing, enclosing curriculum vitae, the names and addresses of three referees, and a brief outline of proposed research to: **Chairman, Department of Pharmacology and Therapeutics, McGill University, 3655 Drummond Street, Room 1325, Montreal, Quebec, H3G 1Y6 by 28 February 1988, as the Department is anxious to implement the position as soon as possible.**

FACULTY POSITION

Outstanding scientist in low temperature stable isotope geochemistry or biogeochemistry is sought for interdisciplinary research in earth sciences/ecology. Rank and salarv open. Send statement of interests, curriculum vitae, and names of three referees by 1 March 1988 to: Chairman, Search Committee, Department of Environmental Sciences, The University of Virginia, Clark Hall, Charlottesville, VA 22903. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

FACULTY FOR EUROPE AND ASIA

The University of Maryland anticipates openings for faculty to teach undergraduate science courses on U.S. military bases overseas. Requirements include the Ph.D. or two M.A.'s, recent college teaching experience, U.S. citizenship, and competence to teach in two of the following fields: astronomy, biology, chemistry, computer science, geology, mathematics, and physics. Renewable annual appointments begin August 1988. Send résumé to: Dr. Ralph E. Millis, The University of Maryland University College, College Park, MD 20742–1642. Affirmative Action/Equal Employment Opportunity.

POSITIONS OPEN

FACULTY POSITION IN GENETICS

Assistant professor, tenure-track position in biology, and molecular and classical genetics. Must have Ph.D. in biological science by 1 January 1988. Teaching areas: introductory biology, evolution, and core course in Mendelian, molecular and population genetics. Successful applicant will maintain productive research program and direct graduate student training at master's level. Deadline: 20 January 1988. Curriculum vitae, relevant publications, graduate and undergraduate transcripts, and names, addresses, and telephone numbers of three references should be sent to: Dr. S. L. Sissom; Search and Screen Committee; Department of Biology; Southwest Texas State University; San Marcos, TX 78666. Southwest Texas State University is an Equal Opportunity/Affirmative Action Employer.

LAND AND GEOGRAPHIC INFORMATION STUDIES UNIVERSITY OF WISCONSIN-MADISON

Applications invited for FACULTY POSITION in Institute for Environmental Studies with joint appoint ment/tenure home in appropriate department. Rank open. Ph.D. in discipline germane to development and/ or application of computer-based land and geographic information systems (GIS) required. Teaching responsibilities include intermediate/advanced courses in technical design and operation of GIS systems in context of their application to natural resource management, land records modernization, and earth system science. Interest expected in one or more areas of: data structures, algorithm development, spatial statistics and error theory, expert systems, integration of remote sensing data. Send résumé, statement of research interests, transcripts, and names/addresses/phone numbers of six references by 15 January 1988 to: Dr. Thomas M. Lillesand, Chairman, GIS Search and Screen Committee, University of Wisconsin-Madison, 1225 West Dayton Street, Madison, WI 53706. Telephone: 608-263-3251. University of Wisconsin-Madison is an Equal Opportunity/ Affirmative Action Employer. Minorities and women strongly encouraged to apply.

FACULTY POSITION PLANT MOLECULAR BIOLOGIST MISSISSIPPI STATE UNIVERSITY

MOLECULAR BIOLOGIST. Assistant professor, 9-month tenure-track teaching and research appointment. Applicants are invited who have qualifications necessary to develop vigorous, extramurally-funded research program in molecular biology of plants. Teaching to include graduate course in plant physiology. Must have Ph.D., established record of research productivity, and demonstrated excellence in recombinant DNA technology as applied to plants. Available 15 August 1988. Deadline 1 February 1988, or until filled. Please send curriculum vitae, statement of interests, recent reprints, transcripts, and three letters of reference to: Dr. H. Wyman Dorough, Head, Department of Biological Sciences, Mississippi State University, Mississippi State, MS 39762. Missispi State University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS AVAILABLE IN BIOMEDICAL ENGINEERING AT NORTHWESTERN UNIVERSITY

The Biomedical Engineering Department has two tenure-track positions in physiological modeling or bioinstrumentation or biomechanics for assistant professors with an engineering background. Application should submit by 1 Febrary 1988: curriculum vitae, outlines of future research plans and teaching interests, and names and addresses of at least three references to: A. E. Kertesz, Chairman, Biomedical Engineering Department, Northwestern University, Evanston, IL 60208. Northwestern is an Equal Opportunity/Affirmative Action Employer.

GLOBAL GEOSCIENCE. Tenure-track/tenure faculty, University of Wisconsin–Madison, Meteorology, fall 1988. Teaching and research in theoretical, observational and/or modeling in coupled ocean-atmosphere climate system, atmosphere/ocean/land surface biospheric and chemical processes, and/or physical oceanography. Ph.D. required. 31 December 1987 deadline. Apply to: L. Horn, Chair, Meteorology, 1225 West Dayton, Madison, WI 53706. The University of Wisconsin–Madison is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION BIOLOGY. Tenure-track position, rank open, in program of cellular and microbial biology, effective September 1988. Duties include underbiology, effective September 1988. Duries include under-graduate and graduate teaching and establishment of independent research program. Special consideration given to applicants with expertise in virology, membrane biology, neurobiology, or microbial pathogenesis, but well qualified applicants from other fields will be serious-ly considered. Minimum qualifications are Ph.D. and 2 years of postdoctoral experience. Send curriculum vitae and three letters of reference by 31 January 1988 to: Dr. J. Michael Mullins, Department of Biology, The Catho lic University of America, Washington, D.C. 20064. An Affirmative Action/Equal Opportunity Employer

The Australian National University. Applications are The Australian National University. Applications are invited for appointment to the position of FEL-LOW, ECOSYSTEM DYNAMICS, RESEARCH SCHOOL OF BIOLOGICAL SCIENCES. The School is seeking to establish a strong research program in community ecology to integrate with its existing interests in theoretical and experimental studies of change in terrestrial vegetation. The appointment will be made to the Ecosystem Dynamics Group. Interests within the Group include modeling of ecosystem processes, the dynamics of plant populations, field ecophysiology, and plant-animal interactions. A major part of the Group's activities concentrate on eucalypt forests and woodlands. It is likely that the Australian biota will continue as a main focus. The successful applicant will have: (a) a strong background in, and outstanding research potential for, research in terrestrial ecology; (b) the ability to establish experimental programs which will contribute to the Group's objectives; (c) the ability to help develop the Group's research program and assist in the academic supervision of its non-tenured staff and postgraduate students; and (d) proven ability to work cooperatively with other researchers. A knowledge of the Australian biota would be an advantage. Further particulars may be obtained from the Registrar. Closing date: 18 December 1987. Ref: BS 22.10.1 Salary: Fellow; 8A32,999 to \$A44,032 per annum; Appointment: Fel-low, tenurable. Applications should be submitted in duplicate to: The Registrar, The Australian National University, GPO Box 4, Canberra ACT 2601, Australia, quoting reference number, and including curriculum vitae, list of publications, and names of at least three referees. The University reserves the right not to make an appointment or to appoint by invitation at any time. Further information is available from the Registrar.

The University is an Equal Opportunity Employer

MEMORIAL UNIVERSITY OF NEWFOUNDLAND FACULTY_OF_SCIENCE HEAD DEPARTMENT OF PSYCHOLOGY

Applications are invited for the position of Head of the Department of Psychology. The Department has 56 full-time faculty members, and offers undergraduate and graduate programs to the Ph.D. level. The degree of M.Sc. is offered in experimental psychology and in clinical psychology. The Ph.D. is offered in experimental psychology. Members of the department carry out re-search in the areas of: learning and behavioral pharmacol-pory: behavioral neuroscience. biopsychology: animal be-

ogy; behavioral neuroscience, biopsychology; animal behavior; cognition; perception; motor behavior, life-span developmental psychology; social psychology and clinical psychology.

Applicants should have demonstrated abilities in research and in the teaching of psychology and be able to show leadership and administrative ability appropriate to the post. The applicant should have a broad appreciation of the field of psychology and be responsive to the diverse requirements of this multidisciplinary department

Address applications or requests for further informa-tion to: Dr. L. Visentin, Dean of Science, (Psychology Head Search Committee), Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1B 3X7. Applications should include a full curriculum vitae and the names of six referees (at least two of whom can appraise the candidate's leadership and organization al abilities) and copies of their three best publications. Closing date for applications is 29 February 1988. In accordance with Canadian Immigration requirements

this advertisement is directed to Canadian citizens and permanent residents in the first instance.

RESEARCH SCIENTISTS

Athena Neurosciences, Inc., located in the San Francisco Bay Area, is a biotechnology-based company committed to the discovery and development of new products to diagnose and treat diseases of the nervous system. The following scientific positions are currently available:

Molecular Biologists-One position exists at the Ph.D. level and two positions are available at the M.S./B.S. level for individuals experienced in cDNA/genomic cloning, DNA sequencing and mammalian cell expression.

Enzymologist—One position is available at the Ph.D. level for an individual with proven experience in enzymology and with interest in both protein purification and enzyme kinetics.

Cellular Neurobiologist—One individual is sought at the Ph.D. level with experience in the culture and manipulation of defined cell types from the central nervous system.

Athena Neurosciences is committed to scientific excellence and offers an exciting professional environment in addition to our competitive salaries, benefits and equity participation. Please send curriculum vitae to: Athena Neurosciences, Inc., 957-P Industrial Road, San Carlos, CA 94070. An equal opportunity employer.

ATHENA) Athena Neurosciences, Inc.

MINMATER NMEN

Northrop Services, Inc., a nationally recognized contract research and development company, is actively seeking chemists, environmental scientists, and microbiologists for an immediate expansion of its operations in Ada, OK. We are seeking candidates with all levels of experience and education (Ph.D., M.S., B.S.) for the following positions:

RESEARCH MICROBIOLOGISTS - to conduct research in the area of pollutant transport and transformation in the subsurface environment. Specifically, to develop methods and data for determining the fundamental process kinetics of pollutant attenuation in soils and groundwater and predicting the transport and transformation of contaminants in the subsurface

APPLIED MATHEMATICIANS - to develop the mathematical relationships between hydrology and contaminant transport and transformation in the subsurface and the chemical, physical, and biological processes that effect these phenomena.

ENVIRONMENTAL SCIENTISTS - provide technical assistance to define area and extent of groundwater contamination, make damage and risk determinations, and advise on remediation techniques, especially in-situ biorestoration.

SOIL SCIENTISTS - to study the distribution of contaminants in soils and groundwater and to study the sorption - desorption properties of contaminants on soils.

GEOCHEMISTS - experience in modeling the transport and fate of contaminants in the subsurface and in monitoring remediation sites.

Professional and technical personnel are being sought at all levels. Positions are full-time, with a complete and competitive benefits package, and offer excellent opportunities for advancement.

Qualified candidates should send a comprehensive resume, salary requirements, references, and a statement of availability, in confidence to

Attn: Z. BUNN JM9



4 DECEMBER 1987

SCIENCE, ENGINEERING AND DIPLOMACY FELLOWSHIPS

Applications Invited

The American Association for the Advancement of Science (AAAS), in cooperation with the Agency for International Development (AID) and the Department of State (STATE) is seeking applicants for two or more Science, Engineering and Diplomacy Fellowships. Fellows will spend one year, beginning 1 September 1988, working either in the Bureau of Oceans and International Environmental and Scientific Affairs of the Department of State or in one of several bureaus and offices of the Agency for International Development. Other assignments may also be possible.

Prospective Fellows must demonstrate exceptional competence in some area of science or engineering, be flexible, have some experience and/or a strong interest in applying knowledge toward the solution of problems in the area of foreign affairs, and have a Ph.D. or equivalent in years of experience. Awardees will work on scientific and technical subjects in international affairs: foreign policy for STATE and international development for AID. In general, individuals are urged to apply from any area of physical, biological, behavioral, and social science and engineering and whose experience and training is applicable to any one of the following areas: food and agriculture; health and population; nuclear nonproliferation; scientific exchange; forestry, natural resources, and ecology; oceans and fisheries; communications; national security; and human resources and education, among others.

The Fellows will serve a one-year appointment at a salary consistent with education level and experience, if possible, but not exceeding the GS-12 level (beginning at about \$33,000). A security clearance process will be initiated after selection. The clearance must be obtained before a selectee can begin work in the State Department or AID and the fellowship award is contingent upon the selectee obtaining this clearance. Prospective Fellows must be U.S. citizens.

Deadline for receipt of application materials is 15 January 1988. The awards will be announced by mid-April, 1988. For more information and application details write:

Science, Engineering and Diplomacy Fellows Program American Association for the Advancement of Science 1333 H Street, NW Washington, DC 20005

Associate Scientist, Molecular Biology

Applied Biosystems manufactures and markets automated instruments, a wide range of chromatography columns and components, and several hundred associated chemicals for biotechnology research and related applications.

At its Foster City location the company has an opening for a Molecular Biologist to assist in the development of automated nucleic acid sequencing systems.

This position requires a Ph.D. in Molecular Biology or a related field with two or more years of postdoctoral experience in recombinant DNA technology. Candidates should be interested in methods development and have demonstrated skills in DNA sequencing, molecular cloning, preparing and screening genomic and cDNA libraries, and restriction mapping.

The ideal candidate is innovative, self-motivated, and possesses good communication skills to work with a multi-disciplinary team. Publication in professional journals is encouraged.

Applied Biosystems offers attractive compensation, benefits and growth opportunity.

Send resume to:

Human Resources Department Applied Biosystems 850 Lincoln Centre Drive, Foster City, CA 94404 An Equal Opportunity Employer



RESEARCH ASSOCIATE MOLECULAR BIOLOGY

Amgen, an industry leader in advanced biotechnology, develops products for a wide variety of applications. Recent progress has created an opportunity for a Research Associate in our Specialty Chemicals and Enzymes Group.

Qualified applicants should have a BS or MS in Molecular Biology, Biochemistry or a related discipline and 2-4 years of experience in Prokaryotic Molecular Biology or Molecular Genetics. Experience with basic molecular biological techniques such as library construction, vector construction, immunoblot analysis and enzyme assays is essential. Familiarty with Gram positive organisms is highly desirable.

Amgen offers a stimulating and challenging research environment as well as an attractive location one hour northwest of Los Angeles. Amgen also offers an excellent compensation and benefits package. Qualified applicants should send a resume and a list of 3 references, in confidence, to:

Recruitment, Dept. #23 AMGEN 1900 Oak Terrace Lane Thousand Oaks CA 91320



Equal Opportunity Employer

ÉTTA SYSTEMS

A Control Data Company

Openings for Computational Scientists

ETA Systems Inc., manufacturer of one of the world's fastest supercomputers, is forming a new group doing state-of-the-art Computational Research. We provide modern computational research tools and substantial computational capacity.

We are looking for highly motivated researchers who can initiate ground breaking computational research in the mathematical and physical sciences. Fields of interest to us include, physics, chemistry, aero and gas dynamics, structural dynamics, material sciences, biochemistry, genetic engineering, immunology, geophysics, semi-conductors, econometrics, and operational research. We expect each successful candidate to initiate external collaborations, and provide both pre- and post-sales consultations in their field of expertise.

Current Openings: Applied Mathematician Computational Chemist or Biochemist Structural Dynamicist

If interested, please send your resume and list of publications to: John Robinson, ETA Systems Inc., 1450 Energy Park Dr, St. Paul, Mn. 55108 USA



MAAG LTD. CH-8157 Dielsdorf, Switzerland Agro-Division of Hoffmann-La Roche

POSTDOCTORAL POSITION

Applications are invited for a postdoctoral fellow in the Section of Plant Physiology to carry out plant biochemical and physiological investigations in hostpathogen reactions. The project involves the characterization of enzyme systems and metabolites in resistant versus susceptible crop plants. Familiarity with enzymology, plant physiology and/or plant pathology are desired.

Applications with curriculum vitae and the names and addresses of two references should be sent as soon as possible to the **Personnel Office**, **Maag Ltd.**, **CH-8157 Dielsdorf**, **Switzerland**, where further particulars may be obtained (Tel: 1-855 11 11).

CLINICAL CARDIOVASCULAR RESEARCH

OTSUKA PHARMACEUTICAL CO., LTD., one of Japan's major pharmaceutical concerns, has openings for Project Leaders at its Maryland Office of Clinical Research, located in new offices near the Shady Grove Life Sciences Center, Rockville, MD.

The Project Leaders will join an outstanding team of international scientists involved in the clinical trials in several therapeutic fields and will be specifically responsible for the clinical trials of cardiovascular agents. The successful candidate will have an M.D. or PhD and relevant experience in clinical cardiovascular research.

For the dedicated professional who seeks career growth as the reward for successful performance while receiving a competitive salary and a comprehensive benefits package, this position is ideal. Forward your resume, in confidence to:



Otsuka Pharmaceutical Co., Ltd. Maryland Office of Clinical Research P.O. Box 4165 Rockville, MD 20850

"Otsuka people creating new products for better health, worldwide."

An Equal Opportunity Employer M/F

Scientists

Genentech, Inc., a leader in the field of biotechnology has the following positions available.

Scientist Microbial Genetics and Physiology Group Leader

Lead an applied research group which uses procaryotic genetics and physiology to develop improved technology for the production of heterologous proteins by bacteria.

The successful candidate will have 2-5 years of laboratory supervision experience in the field of bacterial genetics and physiology and will have a Ph.D. or equivalent in Microbiology, Biochemistry, Microbial Genetics, Microbial Physiology or a degree in Biochemical Engineering with a concentration in microbial physiology and genetics. Experience in procaryotic protein secretion is highly desirable.

Hybridoma Scientist

The Hybridoma Group has an opening for a Scientist with at least a Ph.D. (or equivalent) and 2 years' postdoctoral experience. As a member of this group there will be scientific collaborations with many groups within Research and Development to produce monoclonal antibodies to a variety of recombinant proteins. These antibodies typically are used to help identify key regions of molecules and to develop assays and purification techniques.

The successful candidate will have extensive experience generating hybridomas and characterizing monoclonal antibodies. Additional experience in immunochemical techniques, including generating antibodies to highly conserved proteins, epitope mapping and new fusion techniques is desirable.

Genentech, Inc. offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. Please send resume to: Eric Mankuta, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. An equal opportunity employer.

> Genentech, inc. Genentech, inc. Genentech, inc. Genentech, inc.

FACULTY POSITIONS: PHARMACEUTICS AND PHARMACEUTICAL ANALYSIS, The Division of Pharmaceutics invites applications for two 12 month tenure-track positions at the assistant/associate professor level. Applicants should possess a Ph.D. in pharmaceutics or pharmaceutical analysis, with a strong background in physical chemistry. Responsibilities include team teaching in graduate and professional programs, and developing active research program to attract extramural funding from Federal agencies and/or the pharmaceutical industry. Interested applicants should submit curriculum vitae and the names and addresses of at least three references by 15 December 1987 to: Anwar A. Hussain, Ph.D., (Director) Pharmaceutics and Pharmaceutical Analysis, College of Pharmacy, University of Kentucky, Lexington, KY 40536–0082. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer.

FISH BIOLOGY/ FISHERIES MANAGEMENT

The Department of Fisheries and Wildlife, Utah State University, invites applications for a 9-month, tenuretrack position at the ASSISTANT OR ASSOCIATE **PROFESSOR** level. Applicants may come from a variety of disciplines (e.g., fisheries management and fish physiology), but their primary interest must be in the conservation and management of fisheries resources, including fish populations, habitat, and attendant public concern. Their research interests may vary from addressing immediate management problems to developing principles upon which management, ecology, and ichthyology. Applicants should send a statement of research and teaching interests; a detailed résumé; and the names, addresses, and telephone numbers of three references by 15 January 1988 to: **Dr. David F. Balph, Department of Fisheries and Wildlife, Utah State University, Logan, UT 84322–5210.** Utah State University is an Equal Opportunity/Affirmative Action Employer.

IMMUNOLOGIST/VIROLOGIST

The Muncie Center for Medical Education, a regional center of the Indiana University School of Medicine located on the Ball State University campus, invites applications for a tenure-track position at the level of assistant or associate professor. Qualified individuals should have a Ph.D. or M.D., with postdoctoral experience preferred. The successful applicant will be expected to establish an independent research program in immunology or virology, and will teach immunology and virology to 1st-year medical students. Salary is dependent upon experience. Interested persons should submit curriculum vitae, graduate transcripts, a brief summary of current research activities, and three original letters of reference to: Dr. T. Stuart Walker, Chairman of Search Committee, Center for Medical Education, Ball State University, Muncie, IN 47306. Applications must be postmarked by 25 Lanuary 1988

must be postmarked by 25 January 1988. Ball State University Practices Equal Opportunity in Education and Employment.

NATIONAL JEWISH CENTER FOR IMMUNOLOGY AND RESPIRATORY MEDICINE IMMUNOLOGIST

The Division of Basic Immunology is looking for outstanding applicants interested in cellular or molecular immunology to fill positions at the equivalent of assistant, associate, or full professor level. Applications, including curriculum vitae and the names of three references should be sent to: Dr. Philippa Marrack, Department of Medicine, National Jewish Center for Immunology and Respiratory Medicine, 1400 Jackson Street, Denver, CO 80206. National Jewish Center is an Equal Opportunity Employer.

Strong Cardiovascular Physiology Department seeks INSTRUCTOR/ASSISTANT PROFESSOR (nontenure-track, 2 to 5 years) to teach medical physiology and join active research group studying opiate, adrenergic interactions in the heart and coronary circulation. Individuals with independent funding potential and cardiovascular or neuroendocrine training are encouraged to apply. Expected salary: \$25,000 plus fringes. Send curriculum vitae and reference letters to: James Caffrey, Physiology, Texas College of Osteopathic Medicine, North Texas State University, Camp Bowie at Montgomery, Ft. Worth, TX 76107.

POSITIONS OPEN

The University of Adelaide South Australia invites applications from both women and men for a LEC TURESHIP (tenurable) available immediately in the Department of Entomology located at the Waite Agri-cultural Research Institute, South Australia. The Department of Entomology is concerned principally with research and teaching in the applied ecology of insects, and in associated physiological and systematic studies. Many of the Department's research and teaching activities are directed toward the fundamental aspects of crop protec-tion and pest management. The appointee will be re-quired to undertake original research, supervise postgraduate students and teach undergraduate courses. The Department would be particularly interested to receive applications from entomologists with expertise in the following areas as they relate to the management of insect populations: (i) the molecular biology or biochemistry of insects or their pathogens, OR (ii) the role of pesticides and/or resistant crop varieties, or other aspects of chemi-cal ecology. However, entomologists with expertise in other areas relevant to the management of insect popula tions may be considered. Further information may be obtained from: Professor D. E. Pinnock, Chairman, Department of Entomology, telephone 618-372-2444. Annual salary: A\$28,381 × 7 to A\$37,122. It is University policy to encourage women to apply for consideration for appointment to tenurable academic appointments. Holders of full-time tenured or tenurable academic ap Holders of full-time tenured or tenurable academic ap-pointments have the opportunity to take leave without pay on a half-time basis for a specific period of up to ten years where this is necessary for the care of children. Applications in duplicate, quoting reference number 1084, giving personal particulars, résumé and names and addresses of three referees should reach: **The Registrar**, **University of Adelaide, GPO Box 498, Adelaide, South Australia, 5001, Telex UNIVAD AA 89141** not later than 4 January 1988. *The University is an Equal Opportunity Embloyer*. Opportunity Employer.

THE UNIVERSITY OF SYDNEY AUSTRALIA LECTURESHIP IN ANIMAL BIOLOGY Reference no. 45/16

In particular, the ecology and biology of terrestrial vertebrates. Further information from: The Staff Office, University of Sydney, NSW 2006, Australia. Applications close 31 January 1988.

MOLECULAR BIOLOGIST CORNELL UNIVERSITY MEDICAL COLLEGE

Assistant Professor in Medicine, Division of Hematology-Oncology position available. Applications invited from qualified individuals possessing the M.D. or Ph.D. degree. Individuals with interest in blood coagulation, fibrinolysis, endothelial cell biology, atherosclerosis and cell-cell communication systems are particularly encouraged to apply. Strong background in molecular biology is required. Send curriculum vitae, statement of research interests and names of references to: Ralph L. Nachman, M.D., Cornell University Medical College 1300 York Avenue, New York, NY 10021.

Cornell University Medical College is an Equal Opportunity Employer.

MICROBIAL ECOLOGIST. The Institute of Arctic Biology and the Department of Biology and Wildlife at the University of Alaska Fairbanks invite applications for a tenure-track position in microbial ecology at the assistant or associate professor level. The applicant must have a Ph.D. and demonstrated research expertise in microbial ecology. Postdoctoral experience is preferred. Responsibilities include independent research (ca. 75%) and teaching (ca. 25%), the latter involving instruction at the undergraduate and graduate levels and advising of graduate students. Preference will be given to individuals who would study the role of soil microbes, particularly fungi, in ecosystem processes in the north and who would develop both an independent research program and become involved in team research, e.g., the taiga Long-Term Ecological Research program. Please send by 1 February 1988, curriculum vitae, statement of research and teaching interests, graduate transcript, and three letters of reference to: F. S. Chapin, III, Institute of Arctic Biology, University of Alaska Fairbanks, Aki 99775. The University of Alaska is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MAGNETIC RESONANCE FACULTY (TWO)

The Kettering Scott Magnetic Resonance (MR) Laboratory of the Wright State University School of Medicine and the Charles F. Kettering Medical Center seek two MR faculty members. One is to develop a research program centered on physical and/or engineering aspects of instrumentation or technique development. Candidates must have evidence of productivity in a field of magnetic resonance research such as but not limited to pulse sequence development, signal/image processing, software development, or probe/coil development. The second position is for an MR spectroscopist. Candidates must have evidence of research productivity with in vivo or in vitro NMR.

A Ph.D. is an appropriate field is required and postdoctoral experience is preferred. The successful applicants for both positions will be expected to establish a vigorous independent research program in MR imaging or spectroscopy, collaborate with MR users on the design and interpretation of MR experiments, and help to oversee a whole-body spectrometer. The successful candidates will be appointed to the faculty of the Wright State University School of Medicine in a suitable department or program. Rank and salary are negotiable.

The Kettering Scott Magnetic Resonance Laboratory currently has a whole-animal spectrometer-imager with a 40 cm bore 2.3T magnet, a 9 cm bore 360 MHz spectrometer equipped for solution and solid state spectroscopy, a human-body imager with a 2.5T magnet, computer facilities, and electronic/machine shop facilities. The Laboratory is in the process of purchasing a 2T whole-body spectrometer.

whole-body spectrometer. Applicants should send curriculum vitae, as well as the names and addresses of three references to: Dr. Robert A. Weisman, Chair, Magnetic Resonance Laboratory Search Committee, 234 Biological Sciences Building, Wright State University School of Medicine, P.O. Box 927, Dayton, OH 45401. Applications received by 1 March 1988 will be considered; if the position is not filled therefrom, applications will be considered until the positions are filled. Wright State University is an Affirmative Action/Equal Opportunity Employer.

MICROBIAL GENETICIST BIOTECHNOLOGIST

Applications are invited for a tenure-track assistant professor position starting 1 September 1988. Teaching responsibilities will include a junior/senior level microbial genetics course with laboratory and a senior level course in biotechnology covering fermentation, strain improvement and recombinant DNA technology, as well as shared teaching of introductory courses. Candidate is expected to develop a research program, supervise masters' theses, and pursue extramural funding. The University of Wisconsin, Oshkosh has a faculty development program for funding research. Ph.D. degree required. Postdoctoral and teaching experience desirable. Send application, current résumé, transcripts, and three letters of recommendation to: Dr. M. A. Rouf, Chairperson, Department of Biology and Microbiology, University of Wisconsin Oshkosh, Oshkosh, WI 54901. Screening of applicants will begin 10 December 1987 and will continue until position is filled. The University of Wisconsin Oshkosh is an Affirmative Action/Equal Opportunity Employer.

MOLECULAR BIOLOGY—INSECT PATHO-GENS—Assistant/Associate Professorship in the Department of Agricultural Chemistry, Oregon State University (OSU), in fields of molecular biology relevant to the biological control of insects. One area of particular interest is insect virology, to complement the strong representation at OSU in molecular virology. The successful applicant must have a Ph.D. in biochemistry, molecular biology or a related field, at least 3 years of postdoctoral experience, and demonstrated research and scholarly ability. The primary responsibility will be the direction of a productive research program largely supported by external funds, although educational contribution in the area of expertise is also expected. This is a 12month tenure-track appointment. Apply by sending résuméndation to: Chair, Molecular Biology Search Committee, Department of Agricultural Chemistry, Oregon State University, Corvallis, OR 97331. Applications must be received by 15 January 1988. OSU is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of The Rehabilitation Act of 1973. OSU has a policy of being responsive to the needs of dualcareer couples.

MICROBIOLOGIST. Tenure-track. Assistant professor. Ph.D. in microbiology. Postdoctoral experience preferred. Available August 1988. Duties include teachpreterred. Available August 1988. Duties include teach-ing microbiology and cell biology at the undergraduate and graduate level. The successful candidate will be expected to develop an externally-funded research pro-gram in microbiology and to participate in an M.S. graduate program. Send a statement of research interests, curriciplum under the courses taken, and there curriculum vitae, list graduate courses taken, and three letters of recommendation by 4 January 1988 to: Dr. Douglas Wartzok, Department of Biological Sciences, Indiana University-Purdue University at Fort Wayne, Fort Wayne, IN 46805–1499. An Affirmative Action/Equal Opportunity Employer.

MOLECULAR AND DEVELOPMENTAL NEUROBIOLOGIST TENURE-TRACK ASSOCIATE PROFESSOR

The Division of Hematology-Oncology of Childrens Hospital of Los Angeles has a commitment to fundamental research aimed at an understanding of the etiology, biology and treatment of pediatric neoplasms. A chair had been endowed to underwrite the research of an individual involved in areas related to the molecular biology of human neural tumors. Ample space is avail-able in a newly constructed laboratory facility adjacent to individuals involved in cellular and molecular biological studies on various aspects of pediatric cancers. Applica-tions are invited from individuals who have an established research program with a history of extramural funding. Applicants should send curriculum vitae, and a description of career goals and research objectives, and names of three references to: Richard Moran, Ph.D., Chairman, Search Committee, Division of Hematolo-gy-Oncology, Childrens Hospital of Los Angeles/ University of Southern California, 4650 Sunset Bou-levard, Los Angeles, CA 90027. The University of Southern California is an Equal Oppor-unity Embana

tunity Employer.

MOLECULAR BIOLOGIST. We are seeking an assistant professor for a largely research position. The department has strong ongoing programs in several areas of human genetics, and has made a major commitment in the form of personnel and facilities toward the develop-ment of an outstanding program in molecular genetics. Candidates should have significant research accomplish-ments and should be capable of attracting extramural funding on a national level. Address inquiries to: Dr. M. E. Hodes, Department of Medical Genetics, Indiana University School of Medicine, 702 Barnhill Drive, Room RR 241, Indianapolis, IN 46223. Indiana Uni-versity is an Equal Opportunity/Affirmative Action Employer. assistant professor for a largely research position. The versity is an Equal Opportunity/Affirmative Action Employer.

MOUSE NEUROGENETICIST

The Department of Neurology at Massachusetts General Hospital is seeking a junior or senior faculty member as part of a newly formed Molecular Neurogenetics group. This individual should have in-depth knowledge of the genetics, embryology and neuroanatomy of the mouse. He/she should have demonstrated productivity in research on neurologic mouse mutants and transgenic mice. In addition to carrying out an independent, NIH-funded research program, this individual will run a transgenic facility that will be used by other members of the group. Interested candidates should send curriculum vitae, brief description of current and future research, list of current funding sources, and three letters of reference to

> Joseph B. Martin, M.D., Ph.D. Chief, Neurology Service Massachusetts General Hospital Boston, MA 02114

The Massachusetts General Hospital is an Equal Opportunity Employer. Women and minorities are encouraged to apply for this position.

Ph.D.—SURGERY: Surgical laboratory in Universi-ty-based surgical department seeks basic science researcher with Ph.D. in biochemistry, immunology, or physiology. Must be qualified for academic appointment with specific interest and experience in wound healing, elastin and/or collagen metabolism. Competitive salary Curriculum vitae with salary history to: Marie Murtha, Employment Representative, Long Island Jewish Medical Center, New Hyde Park, NY 11042. An Equal Opportunity Employer.





For our Research Centre situated north of Lausanne (Switzerland) we are looking for a

BIOCHEMIST

with good experience in the metabolism and the biochemistry of membrane lipids and particularly in the products derived from cyclooxygenase and from lipoxygenase.

He (she) will reinforce our activity in the effects of polyunsaturated fatty acids in nutrition.

Kindly send your application with curriculum vitae to Mrs. M. Germanier-Audrin, Personnel Services, Nestle Research Centre, P.O. Box 353, CH-1800 VEVEY.

RESEARCH SCIENTIST SUPERVISOR CLINICAL PATHOLOGY

The Corporate Research Division, Toxicology Department, responsible for safety assessment of new pharmaceuticals and chemical products for Miles Inc., has an excellent opportunity for a Supervisor of the Clinical Pathology Laboratory.

This individual is responsible for collection, analysis, interpretation, and reporting of blood chemistry, hematology, and urine data from experimental laboratory animals for submission to governmental regulatory agencies and also for reviewing study protocols with particular reference to clinical pathology segment. Good Laboratory Practices of FDA Regulations must be satisfied

The candidate should have a Masters or Ph.D. degree in biology or biochemistry with a minimum of 2-4 years experience in clinical pathology or DVM with 1-2 years experience in clinical pathology; good oral and written communication skills; understanding of basic statistical concepts useful in the interpretation of data for reporting purposes; ASCP or ACVP certification desirable

If you are looking for a challenging position in a company with excellent starting salary plus a superior benefit program, please send a complete resume to include expected salary in confidence to:

> **Renata Moyer** Sr. Personnel Representative Department 259 Miles Inc. P.O. Box 40 Elkhart, IN 46515 Relocation expenses paid by the company AN EQUAL OPPORTUNITY EMPLOYER M/F/H

Postdoctoral Scientist Endothelial Cell Biology/ Vascular Pharmacology

Smith Kline & French Laboratories, located in suburban Philadelphia, Pennsylvania, is seeking a Postdoctoral Scientist to work with Dr. Barry A. Berkowitz in an environment designed to foster creative innovative research and to promote personal and professional growth.

We consider postdoctoral studies to be of major importance in an individual's career and encourage publication of findings in leading journals and a full interaction with the scientific community.

Our postdoctoral appointments are normally of 2 years duration. The successful candidate will undertake an independent program in endothelial cell biology and vascular pharmacology.

Candidates are required to have:

- $\bullet\,$ a Ph.D./MD in Cell Biology, Biochemistry, Pharmacology with 0-2 years
- postdoctoral experience.
 a strong background and experience in tissue culture, cell biology, vascular smooth muscle, or vascular biochemistry.
- an interest in mechanism of vascular contraction and relaxation; vascular pharmacology.
- excellent academic record, strong communication skills, and a capacity for independent study.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your C.V. and names of three references to: Robert F. Obst, Manager, Personnel Relations, R0109, Smith Kline & French Laboratories, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

SKSF A SmithKline Beckman Company

PH.D. CARDIOVASCULAR PHYSIOLOGIST/ PHARMACOLOGIST

Sound business strategies and aggressive research have fueled Abbott Laboratories' success as a \$4 billion health care leader. One area where we continue to achieve prominence year after year is our Pharmaceutical Products Division, where we are now seeking individuals to join our scientific team in conducting cardiovascular research studies.

Responsibilities will entail discovery and developmental pharmacology of drugs for the indication of congestive heart failure, and will involve setting up models of congestive heart failure in small and large animals. Ph.D. in cardiovascular physiology/pharmacology required. Post-doctoral experience and a strong background in cardiac function supported by well-developed written and oral communication skills are essential.

Consistently recognized as a top American corporation, Abbott is able to provide a superior scientific environment at our headquarters just 30 miles north of Chicago on the Lake Michigan shoreline. We also offer an excellent salary and benefits package that includes profit sharing and stock retirement plan. For confidential consideration, please send your resume with salary history to: **Patricia Handy/Corporate Placement, Dept. SCI/12-4.** Abbott is an affirmative action employer.



IBI POSITION OPENINGS

Technical Training Specialist — We are looking for an individual to organize and teach our Sequencing Workshops. The ideal candidate will have a Ph.D. and at least one year of laboratory experience with dideoxy sequencing. If you are ready to leave the research laboratory and enjoy teaching, please contact us for more information on this unique opportunity.

Protein Biochemistry Product Manager — This individual will play a key role in developing products from idea stage to final release for protein biochemistry research laboratories. The successful candidate will have working knowledge of protein purification and analysis techniques and a strong interest in Product Development and Marketing. Sales or Technical Service experience is preferred.

Technical Service Representative — This critical Customer Service position provides technical assistance on the use of IBI products and systems. A thorough knowledge of standard molecular biology techniques, familiarity with protein biochemistry and excellent interpersonal skills are required.

Interested candidates should submit resumes to:

Attention: Position Title (see above) IBI P.O. Box 9558 New Haven, CT 06535



CONGRESSIONAL SCIENCE AND ENGINEERING FELLOWSHIPS

Applications Invited

The American Association for the Advancement of Science (AAAS) invites applications for two one-year Congressional Science and Engineering Fellowships it will offer for the period beginning 1 September 1988. The Fellowship Program provides an opportunity for accomplished and societally aware postdoctoral to mid-career scientists and engineers to participate in and contribute to the public policy-making processes within the Congress. Fellows work as special legislative assistants within the congressional staff system.

Persons may apply from any physical, biological, or behavioral science or any field of engineering. The term "science" is used broadly to include the system sciences, public health, and other technical professions. In addition to the fellowships awarded by the AAAS, about 15 others are given by other participating professional societies. The AAAS runs a year-long educational program for both its own Congressional Science and Engineering Fellows and those selected by the participating societies. Addresses of all participating societies are available from the address listed below.

The 1987–88 AAAS Congressional Science and Engineering Fellows will receive a stipend of \$26,500; an additional \$1,500 is available for relocation expenses and travel in connection with the Program.

In order to obtain detailed information on the Program and specific application requirements, write:

Congressional Science and Engineering Fellows Program American Association for the Advancement of Science 1333 H Street, NW Washington, DC 20005

The deadline for submission of application materials is 15 January 1988. The award will be announced around 1 May 1988.

Air Force Office of Scientific Research

Summer Faculty and Graduate Student Research Program



The USAF Summer Faculty Research Program (SFRP) and Graduate Student Research Program sponsored by the Air Force Office of Scientific Research and conducted by Universal Energy Systems, Inc. (UES) provides research opportunities for qualified faculty members and graduate students of U.S. Institutions of higher education. The research will be conducted at one of 26 participating Air Force Laboratory Centers.

- Electrical Engineering
- Mechanical Engineering
- Aeronautical and Astronautical Engineering

Biomedical Engineering

- Chemical, Industrial and Civil Engineering
- Physics
- Computer Modeling and Computer Science
- Chemistry
- Mathematics
- Behavioral Science
- Operations Research
- Metallurgy
- Logistics, Production, and Systems Management
- Meteorology and GeophysicsLife Sciences, Biology
- and Biophysics
- Toxicology

To be eligible for participation, individuals must be U.S. citizens currently serving as full-time faculty or graduate students at U.S. Institutions. All qualified applicants will receive consideration without regard to age, color, race, religion, sex, or national origin.

Interested individuals are requested to contact: SFRP Administrator

Universal Energy Systems, Inc. 4401 Dayton-Xenia Road Dayton, Ohio 45432 Phone (800) 533-7532

JES Universal Energy Systems

Equal Opportunity Employer

DIRECTOR SCIENTIFIC AND MEDICAL AFFAIRS

CITY OF HOPE NATIONAL MEDICAL CENTER

AND



BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE

The City of Hope National Medical Center and its affiliated Beckman Research Institute seek an established physician-scientist to serve as Director of Scientific and Medical Affairs. The City of Hope, located on a 90-acre campus in suburban Los Angeles, is a 75-year old research institution that consists of a 212-bed medical center with a major focus in cancer research, and the Beckman Research Institute that is comprised of basic science groups in molecular biology, immunology, and neurosciences. The Medical Center and Beckman Research Institute are staffed by a full-time faculty of over 150 doctoral level investigators.

The City of Hope invites applications from senior physician-scientists who have a distinguished record of achievement in laboratory and clinical investigation as well as patient care and an excellent background in scientific or hospital administration. The successful candidate will be responsible for the operational management of all Medical Center and Beckman Research Institute departments and divisions and will report directly to the President and Chief Executive Officer of the City of Hope. Appointment at the full professor equivalent rank is expected. Applications should include a letter of inquiry, curriculum vitae, and the names of at least four supporting references, and should be addressed to James H. Doroshow, M.D., Chairman, Director of Scientific and Medical Affairs Search Committee, City of Hope National Medical Center, 1500 East Duarte Road, Duarte CA 91010.

The City of Hope is an equal opportunity/affirmative action employer.

NEUROBIOLOGIST. Applications are invited to fill two tenure-track positions in the Division of Neurosciences. We are seeking exceptionally talented scientists actively engaged in experimental neurobiology at the cellular and molecular level. These investigators should have interdisciplinary training, be at least 2 years postdoctoral, and expect to develop an independent program in a growing area of neuroscience. The Division is a highly diversified group engaged in basic neuroscience research. Send curriculum vitae and summary of research goals to: Dr. Paul M. Salvaterra, Chairman of Search Committee, Neurosciences, Beckman Research Institute of the City of Hope, Duate, CA 91010. Equal Opportunity Employer.

OB/GYN FACULTY POSITION

The Department of Obstetrics and Gynecology, University of Oklahoma Health Sciences Center in Oklahoma City is seeking an individual with research interests in reproductive biology. The candidate must have academic training in reproductive biology, early gamete physiology, and andrology. Ph.D. required. Preference will be given to (1) individuals familiar with in vitro fertilization techniques, especially in nonhuman primates, and (2) individuals with at least a peripheral interest in reproductive in munology. The individual should be prepared to participate in student and resident teaching and assisting in research projects of students and residents. Candidates should be capable of interdigitating research efforts with clinical faculty as well as working independently on more basic projects. Send curriculum vitae and bibliography:

Send curriculum vitae and bibliography: John I. Fishburne, Jr., M.D. Professor and Chairman Department of Obstetrics and Gynecology University of Oklahoma College of Medicine P.O. Box 26901, 4SP 700 Oklahoma City, OK 73190 An Equal Opportunity Employer

PHYSIOLOGIST. Full-time position at assistant professor level beginning 1 September 1988. Ph.D. with teaching experience in human physiology and general physiology is desired. Other teaching responsibilities will include a semester course in human anatomy and physiology, laboratory sessions in general biology, and others depending upon interest of the individual. Applicants should send curriculum vitae with introductory letter and three letters of recommendation by 29 January 1988 to: Dr. James R. Phifer, Vice President for Academic Affairs, Coe College, Cedar Rapids, IA 52402. Affirmative Action/Equal Opportunity Employer.

PLANT PHYSIOLOGIST: Permanent position, rank open, available at a public liberal arts college to begin August 1988. Ph.D. and commitment to excellence in undergraduate teaching required. Primary course responsibilities include plant physiology, plant development and structure, and participation in the first-year course for biology majors and the biology component of a general studies program. Other course responsibilities will depend on applicant's experience but could include electron microscopy, plant pathology, cell biology, and/ or biochemistry. Research program involving undergraduates encouraged. Send résumé, transcripts, statement of teaching interests and three letters of reference by 15 January 1988 to: Dr. C. Tanner, Biologist Search Committee, St. Mary's College of Maryland, St. Mary's City, MD 20686. Women and minorities are encouraged to apply and identify themselves as such. Affirmative Action/Equal Opportunity Employer.

Positions are available for **RESEARCH** in the following areas: Anticancer agent discovery and development (**Drs. Thomas Corbett** and **Fred Valeriote**); experimental combination chemotherapy and radiation chemotherapy (cellular and molecular studies); experimental hematology (**Dr. Alexander Nakeff**); MRI and MRS biological studies (**Dr. Jeffrey Evelhoch**); clinical pharmacokinetics (**Dr. Laurence Baker**); hyperthermia research (**Dr. Steve Sapareto**); macrophage biology and biological response modifiers (**Dr. Ben Chen**). Stipends are \$20,000 per year. Apply to: **Dr. Fred Valeriote**, **Ph.D., Division of Hematology and Oncology, Department of Internal Medicine, Wayne State University School of Medicine, P.O. Box 02188, Detroit, MI 48201**. *Wayne State University is an Equal Opportunity/ Affirmative Action Employer*.

POSITIONS OPEN

PLANT ECOLOGIST—The Department of Biological Sciences at the University of Wisconsin–Milwaukee (UWM) invites applications for a faculty position at the **ASSOCIATE OR FULL PROFESSOR LEVEL**. We are seeking candidates who have established strong records of teaching, research, and grant support. Potential areas of expertise include population, community, landscape, or ecosystem ecology. The position offers broad opportunities for a versatile scientist to collaborate with existing faculty in ecological and evolutionary biology.

existing faculty in ecological and evolutionary biology. UWM is a major Ph.D.-granting urban university. Facilities of interest to this position include the nearby UWM Field Station and the UWM Center for Great Lakes Studies.

Applicants should provide curriculum vitae, a statement of research interests and future plans, reprints of selected publications, and the names of 3 to 5 referees to: Chair, Plant Ecologist Search Committee, Department of Biological Sciences, University of Wisconsin– Milwaukee, P.O. Box 413, Milwaukee, WI 53201. Closing date: 15 February 1987

Closing date: 15 February 1987. The University of Wisconsin–Milwaukee is an Affirmative Action/Equal Opportunity Employer.

PLANT GENETICIST

Assistant professor, tenure-track, Ph.D. required. Applicant should have expertise in plant genetics and training in techniques of micro-environmental analysis, tissue culture, biochemical interactions, tracer techniques, or other related specialties to explore problems of organismal biology. Applicant should submit evidence of teaching experience and/or teaching potential and ability to publish and obtain outside funding. Instructional duties would include genetics, plant physiology and general botany. The successful candidate will be expected to obtain extramural funds in the development of a research progam. Send, by 15 January 1988, letter of intent, copies of transcripts, and a list of three potential referees to: Dr. Russell G. Rhodes, Chairperson of Search **Committee, Box 148, Department of Biology, Southwest Missouri State University, Springfield, MO 65804–0095**. SMSU is an Equal Opportunity Affirmative Action Employer.

POSTDOCTORAL ASSOCIATE

Position available for membrane biochemist to work in membrane biophysics laboratory studying sperm membrane organization and the control of fertilization. Strong background in lipid biochemisty (i.e., membrane fractionation, lipid analysis, phospholipases, and lipid transfer proteins) preferable. Submit curriculum vita and names of three references to: Dr. David Wolf, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. An Equal Opportunity/Affirmative Action Employer M/I/H.

POSTDOCTORAL FELLOW. To assist the primary investigator in hematology/oncology with the study of cellular and biochemical mechanisms of multidrug resistance in cancer cells. We require a Ph.D. in biochemistry, immunology, cell

We require a Ph.D. in biochemistry, immunology, cell biology, pharmacology, or related field. Experience in monoclonal antibody production and membrane/receptor biochemistry is desirable.

Interested applicants should forward a copy of their curriculum vitae, recent publications, and three letters of recommendation to: Dennis Lee, Department of Human Resources, Michael Reese Hospital and Medical Center, Lake Shore Drive at 31st Street, Chicago, IL 60616. Equal Opportunity Employer M/F.

POSTDOCTORAL POSITION available immediately to study human epithelial cell transformation, differentiated function, and the molecular genetics of cystic fibrosis. The program will involve biochemical and genetic characterization of primary and transformed epithelial cells with emphasis on regulation of gene expression. Background in mammalian molecular biology, recombinant DNA techniques, cytogenetics, and/or chemical carcinogenesis desirable. Send curriculum vitae, brief description of research interests, and names of three references to: Dr. Dieter C. Gruenert, Cardiovascular Research Institute/Cancer Research Institute, Box 0130, University of California Medical Center, San Francisco, CA 94143. Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL FELLOW—SALARY RANGE \$2415 to \$2730 per month. This is a 2-year term appointment, with the possibility of renewal. The incumbent will work in the area of high-brightness synchrotron radiation sources and free-electron lasers. Specific duties include: calculation of the photon performance and parameter optimization of insertion devices in support of the Advanced Light Source project. The incumbent will also participate in a systematic study of synchrotron radiation optics using the newly developed phase-space method. This study will lead eventually to a comprehensive ray-trace program that includes diffraction effects. Research topics in free-electron lasers include novel methods for short-wavelength free-electron lasers, analytical calculation and numerical simulation of the startup problem, study of coherence properties. The successful candidate must have demonstrated experience in numerical analysis and a research background in electromagnetic and/or optical phenomena. Ph.D. in physics or in the related field required. To apply, send two copies of résumé to: Lawrence Berkeley Laboratory, #1 Cyclotron Road, Employment Office 90-1042, Berkeley, CA 94720. Refer to Job #A/4436. An Equal Opportunity Employer MIFIH.

POSTDOCTORAL FELLOW IN IMMUNOLOGY

Collagen Corporation, headquartered in Palo Alto, California, is dedicated to the research, development, production and marketing of differentiated biomedical products. Our state-of-the-art environment combined with the clinical relevance of our core technology presents a challenging opportunity for a postdoctoral fellow in immunology to step into the future of biotechnology.

As an important member of our immunology team, you will study the role of lymphokines and cytokines in autoimmune diseases. This activity requires the addition of an individual with a Ph.D. and experience in cellular immunology and familiarity with animal models of autoimmunity.

Collagen Corporation strongly encourages and rewards professional contribution. To learn more about this position and our attractive compensation package, please send your curriculum vitae, bibliography, and the names of several references to: **S. Hansen, Human Resources, Collagen Corporation, 2500 Faber Place, Palo Alto, CA 94303.** We are an Equal Opportunity Employer.

COLLAGEN CORPORATION

POSTDOCTORAL POSITION available immediately for studies on vascular smooth muscle kinetics and cellular growth. Growth kinetics and inhibition of growth both in animals and in cell culture will be examined along with the response of these to various agents. A strong background in cell biology, cell culture, small animal surgery and radioisotopes is required. Send curriculum vitae and names of three references to: Michael B. Stemerman, M.D., Vosburgh 302, New York Medical College, Valhalla, NY 10595.

POSTDOCTORAL POSITION available July 1988 at Loma Linda University in Southern California for candidate with a Ph.D. in anatomy or pathology with potential for long-term position. A major focus is quantitative histological and histochemical techniques applied to animal and patient studies of bone. Opportunities for collaboration in this multidisciplinary lab include such areas as protein purification, cell cycle analysis, cell differentiation, immunocytochemistry, RIA, and membrane receptor studies. No experience in bone is necessary. Competitive salary and benefits. Send curriculum vitae and three letters of reference to: D. J. Baylink, Research Service (151), Jerry Pettis VA Hospital, Loma Linda, CA 92357. Equal Employment Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION: Available 4 January 1988 to study *S. aureus* fibronectin receptor expression in transposon-mutated organisms. Experience with molecular genetics and antigen isolation desirable. Salary commensurate with NIH guidelines. Send curriculum vitae, summary of research experience, and three letters of reference to: Dr. Richard A. Proctor, Department of Medical Microbiology, University of Wisconsin, 1300 University Avenue, Madison, WI 53706. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available, starting 3 January 1988, to study lipid oxidation in stored fish muscle and means of preventing same. Experience in lipid biochemistry and analysis preferred. Salary range \$12,286 to \$19,000, commensurate with experience. Send curriculum vitae and three letters of recommendation by 4 January 1988 to: Dr. H. O. Hultin, University of Massachusetts Marine Station, P.O.B. 7128, Lanesville Station, Gloucester, MA 01930. The University of Massachusetts/Amherst is an Affirmative Action/ Equal Opportunity Employer.

POSTDOCTORAL POSITION is available to study (i) function and regulation of *Candida* acid protease and (ii) molecular biology of genetic transpositions and high frequency phenotypic switching in *Candida* in the laboratories of **T**. **Ray** (dermatology) and **D**. **Soll** (biology). Immunochemistry and molecular biology experience desired. Send curriculum vitae and names of three references to: **Dr**. **Thomas L. Ray**, **Department of Dermatology**, **University of Iowa College of Medicine, Iowa City, IA 52242.** *The University of Iowa is an Equal Opportunity*/Affirmative Action Employer.

POSTDOCTORAL POSITION

Postdoctoral position available to study Drosophila oncogene homologs and acetylcholine receptor. Applicants are sought with an interest in studying the functions of these genes using molecular and genetic approaches. Experience in either molecular biology or Drosophila is desirable. Please send curriculum vitae, and names of three references to: Samuel C. Wadsworth, Ph.D., c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. An Equal Opportunity/Affirmative Action Employer MI/FH.

POSTDOCTORAL POSITION

Available 1 February 1987 postdoctoral position in experimental cancer chemotherapy involving molecular pharmacology and biochemistry. Research will involve basic, mechanistic studies of the natural folates and their influence on the cytotoxicity of antineoplastic agents in human tumors. A strong background in biochemistry or molecular pharmacology is an advantage. Send curriculum vitae and names of three references to: Dr. J. A. Houghton, Department of Biochemical and Clinical Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION is available for at least 2 years beginning 1 January 1988. We are investigating ways to improve tumor localization, nuclear scanning properties and immunotoxin therapy of our antihuman colon cancer monoclonal antibodies targeted against human tumors carried in animal models. Experience in immunology, chemistry or biochemistry as well as a proven ability to work with animals is desirable. Send inquiries to: **Dr. Judith Connett, Department of Surgery, Jewish Hospital, Washington University Medical Center, 216 South Kingshighway, St. Louis, MO 63110.**

POSTDOCTORAL POSITION to study two mitochondrial membrane enzymes essential for proline and ornithine synthesis from glutamate. Work involves protein purification, antibody production and immunocytochemistry. A recent Ph.D. in biochemistry preferred. Send curriculum vitae, summary of research experience, and names of addresses of three references to: Dr. M. E. Jones, Department of Biochemistry, University of North Carolina, Chapel Hill, NC 27514–7260. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION immediately available for Ph.D. CELLULAR IMMUNOLOGIST to study T cell regulation or mouse IgA responses. Opportunity to prepare and work with T cell clones and hybridomas, to prepare monoclonal antibodies and/or study F_c alpha receptors. Prior research experience in immunology or related field required. Write, enclosing curriculum vitae, names, addresses, and telephone numbers of three referees to: Dr. Julia M. Phillips-Quagliata, Department of Pathology, New York University Medical Center, New York, NY 10016. Starting salary for new Ph.D.: \$21,000.

4 DECEMBER 1987



Diagnostic Products Corporation, a leading independent and wellestablished biotechnology company in Southern California, is seeking qualified and experienced individuals for the following scientific positions in the company's newly formed Molecular Biology Department.

DIRECTOR, MOLECULAR BIOLOGY

The candidate should have a PHD and at least 5 years of experience in all aspects of molecular biology and immunology, especially recombinant DNA such as nucleic acid hybridization, RFLP, tissue culture, and hybridoma technology.

and hybridoma technology. In this capacity the candidate will interface with a highly prestigious and knowledgeable scientific advisory board and will be reponsible for recruiting an initial staff of ten scientists. The candidate must have proven leadership skills, and be able to communicate well both within the company as well as with outside contacts. Remuneration and fringe benefits commensurate with experience.

SENIOR SCIENTISTS, MOLECULAR BIOLOGY

Career-oriented candidates with a PHD degree and at least 3 years post-doctoral training in molecular biology and immunology are encouraged to apply to this team of senior scientists that will form the nucleus of the molecular biology department scientific staff. Candidates should have experience with nucleic acid biochemistry, recombinant DNA technology and DNA sequencing as well as tissue culture. This challenging appointment requires good communication skills and aggressive scientific talents.

SENIOR SCIENTISTS, PROTEIN BIOCHEMISTRY

Candidates with a PHD with a post-doctoral training in protein biochemistry are encouraged to apply to this team of senior scientists that will participate in the isolation and physical characterization of a variety of proteins and/or peptides. A thorough background in peptide synthesis, classical and solid-phase, is essential. Knowledge of carbohydrate and nucleic acid biochemistry is preferred. Also, candidates should have experience with HPLC, FPLC, affinity chromatography and other methods of protein purification.

> Please send your resume to: Diagnostic Products Corporation 5700 West 96th Street Los Angeles, CA 90045

Attention: Vice President, Research and Development.

POSTDOCTORAL POSITION available immediately to study autoantibodies. Background in immunochemistry, protein purification, amino acid sequencing, and monoclonal antibody technology is required. Send curriculum vitae and names of three references to: Dr. Blas Frangione, New York University Medical Center, 550 First Avenue, New York, NY 10016.

POSTDOCTORAL POSITION available in the study of mechanisms of toxic injury to cardiovascular tissue. Individual will be encouraged to examine cardiovascular enzyme systems which have been previously understudied. Biochemical and molecular approach is to be utilized in this basic pathobiology study. Send curriculum vitae and references to: Dr. P. J. Boor, Chemical Pathology Division, University of Texas Medical Branch, Galveston, TX 77550. Telephone: 409-761-3656. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available in the spring of 1988 to study the differentiation of cultured marine embryonic teratocarcinoma stem cells. The laboratory focuses on the control of gene expression drawing differentiation, and understanding the molecular mechanism by which the vitamin A derivative, retinic acid, causes the differentiation of certain cell types. A back, ground in molecular biology and/or biochemistry is desirable, and applicants should be highly motivated, creative scientists. This position is a joint appointment between the Dana-Farber and the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School. Please send curriculum vitae with the names and addresses of three references to: Dr. Lorraine Gudas, Associate Professor, 830D. Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. An Afirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS IN IMMU-NOLOGY: two positions available to study murine macrophage activation using molecular and biochemical approaches. Areas of interest include the role of complement, Fc receptor functions, respiratory burst and changes in gene expression. Experience in protein purification, recombinant techniques, cell culture and macrophage function desirable. Support available for 2 years at a competitive salary with full fringe benefits and the possibility of permanent positions for suitable candidates. Send résumé and three letters of reference to: **Richard W. Leu, Ph.D., Head, Immunology Section, The Samuel Roberts Noble Foundation, P.O. Box 2180, Ardmore, OK 73402.**

POSTDOCTORAL POSITION MOLECULAR BIOLOGY

Postdoctoral position available immediately for a recent Ph.D. in the Laboratory for Cell, Molecular, and Developmental Biology at the University of Illinois at Chicago, to conduct research in the area of genetic recombination and microbial differentiation. A broad range of molecular biology research activities in the LCMDB provides a stimulating training environment. Aim will be to develop the molecular biology of cloned genes required for genetic transformation in *Streptocecus pneumoniae*. Strong background in microbial genetics and molecular biology is essential, including experience with DNA sequencing and techniques for study of gene

expression. Send application letter, curriculum vitae, reprints, and three reference letters to: Dr. Donald A. Morrison, LCMDB (m/c 067), UIC, P.O. Box 4348, Chicago, IL 60680 (Telephone: 312-996-6839). The University of Illinois is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS. Postdoctoral fellowships available in cancer and pulmonary pharmacology to study the biochemical and molecular basis of drug resistance and drug-induced pulmonary fibrosis. Experience with protein purification, molecular techniques or cell culture is required. The research program is based in a rapidly expanding department providing an excellent training environment. Please send curriculum vitae and the names of three references to: Dr. John S. Lazo, University of Pittsburgh School of Medicine, Department of Pharmacology, 518 Scaife Hall, Pittsburgh, PA 15261.

NATIONAL INSTITUTE OF DIABETES & DIGESTIVE & KIDNEY DISEASES

NATIONAL INSTITUTES OF HEALTH PUBLIC HEALTH SERVICE

Applications are invited for the following vacancy:

Postdoctoral position in protein chemistry, to study the roles of amino acid residues that are invariant in evolution in the structure-function properties and in molecular motion (forces for folding) of cytochrome c. Peptide fragments with noncoded amino acids are to be synthesized chemically; selected amino acids will be labelled for NMR studies.

The NIH is located in Maryland close to Washington, D.C. It has nearly 3000 scientists carrying out research in 12 Institutes. The intramural program of the NIDDK has over 500 doctoral level scientists working on a broad range of basic and applied biomedical problems in 21 different groups.

Qualified applicants should send a curriculum vitae, bibliography, short statement of research interests and the names of three references to: Dr. Hiroshi Taniuchi, Building 10, Room 9N-313, 9000 Rockville Pike, Bethesda, MD 20892, (telephone 301-496-3500). The appointment can be offered to either U.S. citizens or other qualified applicants.

AN EQUAL OPPORTUNITY EMPLOYER

₹(0/SUKA) ÷

0

т

S F U O

ΡE

Е Т

о т

ΡE

Ε

R A

E L

A T T H

N W

G O

N L E D

w w

P D

R E

0

D U

С

Т

S

U O K R A

В

L R

H C E

т н I

R

RESEARCH ASSISTANTS

ENZYMATICS INC. seeks well qualified Research Assistants to share in a high growth environment. The positions require an MS/BS Degree with at least 2 years of laboratory experience in organic chemistry or biochemistry.

Enzymatics is a strongly financed company developing a new generation of colorimetric diagnostics.

We will be relocating to the northern Philadelphia suburb of Horsham in December 1987. These positions represent a golden opportunity to get in on the ground floor of a dynamic, rapidly growing company.

Enzymatics offers competitive salaries and a stock participation plan for all employees. Please submit cover letter, resume, salary history and references to: ENZYMATICS, INC., Bldg. H, Bethlehem Technology Center, So. Mountain Drive, Bethlehem, PA 18015. EO M/F.

ENZYMATICS

OTSUKA PHARMACEUTICAL CO., LTD. ATTN: BIOSTATISTICIANS

Start your career with one of the world's leading edge Pharmaceutical companies. Work at our newly opened office, located near the Shady Grove Life Sciences Center in Rockville, MD which serves as the focal point for Otsuka's clinical trials in the United States. Since Otsuka is the third largest pharmaceutical company in Japan and has existing clinical research facilities in Frankfurt, West Germany and London England, there will be opportunities for international travel.

We presently have opportunities for entry level Biostatisticians to join our clinical research team working on a variety of studies including cardiovascular, immunologic and nutritional disorders.

You will collaborate with Clinical Research Associates and our senior staff on the development of strategies and protocols and will be responsible for case report design, analysis of data and preparation of reports.

Qualifications required include an MS in Statistics or Biostatistics with a strong background in the use of statistical packages such as SAS. You will have an excellent opportunity for growth with our team. We provide an excellent benefits package and a competitive salary.

Please send your resume and salary history to: **Technical Recruitment, OTSUKA PHARMACEUTICAL CO., LTD., P.O. Box 4165, Rockville, MD 20850**. An Equal Opportunity Employer M/F.

University of Pittsburgh at Johnstown NATURAL SCIENCES DIVISION CHAIRMAN

Applications are invited to fill the position of Chairperson of the Division of Natural Sciences at the University of Pittsburgh at Johnstown, Johnstown, PA. The position offers a unique opportunity for an individual who would be intrigued by the challenge of integrating and managing a Division which spans Liberal Arts and Professional preparation. The Natural Sciences Division is made up of seven Liberal Arts Departments including Biology, Chemistry, Computer Science, Geology and Planetary Sciences, Physics, Psychology, Mathematics, and one professional department, Respiratory Care. The forty-nine faculty members of the Natural Sciences Division and the Division Chairperson have been participating actively in Pitt's Campus of the Future and have extensive computing resources available. The Division also has strong ties with the local medical community.

A Ph.D. in one of the above sciences is required, along with scholarly achievement in that field and administrative experience. The successful applicant must have a deep commitment to undergraduate teaching and research. Academic involvement typically includes the teaching of one course per term. Rank and competitive salary will be negotiable.

The University of Pittsburgh at Johnstown is located in a rural setting in the beautiful Laurel Highlands of Western Pennsylvania approximately 70 miles southeast of Pittsburgh and 150 miles northwest of Washington, D.C. The area is well known for its outdoor recreational opportunities all seasons of the year.

Applicants should send a letter with a statement of goals and of interests related to the unique situation that UPJ offers, a curriculum vitae, and names of three referees who are knowledgeable of your academic and administrative experience to Dr. Doris L. Brown, Chairman, Search Committee, Biology Department, University of Pittsburgh at Johnstown, Johnstown, PA 15904, no later than January 20, 1988. UPJ is a four-year, degree-granting college of the University of Pittsburgh system with 2,800 students and is an equal opportunity/affirmative action employer.

EniChem Americas Inc.

Enichem Americas Inc. is the American subsidiary of EniChem, the chemical arm of ENI (Ente Nazionale Idrocarburi). We have several positions available in the Plant Biotechnology Group at our Research Center near Princeton, NJ. These vacancies present a unique opportunity to join a group of highly motivated scientists developing programs on crop improvement through biotechnology. We are particularly interested in PhD, MS and BS candidates with expertise in at least two of the following areas: protein biochemistry, metabolic biochemistry, plant pathology, entomology, plant molecular biology, and plant cell biology.

Successful candidates will enjoy the benefits of joining a new research team in a well-equipped, custom designed facility supported by a major European corporation.

Send Curriculum Vitae to:

Personnel Coordinator EniChem Americas, Inc. Research and Development Center 2000 Princeton Park Corporate Center Monmouth Junction, New Jersey 08852

EQUAL OPPORTUNITY EMPLOYER M/F

HEALTH PHYSICIST

Merck Sharp & Dohme Research Laboratories, a worldwide leader in pharmaceutical research, has an immediate opening for a Scientist with a sound Health Physics background for this creative and multidisciplined research organization.

This position requires a Ph.D. degree or equivalent in Biochemistry/ Chemistry/Molecular Biology/ Physics with experience in radiation hygiene and evidence of research productivity. The position is located at the Merck Sharp & Dohme Research Laboratories, Rahway, New Jersey, approximately 25 miles from New York City. Our salaries, benefits, and growth potential are excellent.

Interested candidates should submit their resume with the names of three references and salary requirements to: Ms. Susan R. Jenkins, Merck & Co., Inc., P.O. Box 2000, Rahway, New Jersey, 07065.Equal Opportunity Employer



RESEARCH SCIENTISTS

Athena Neurosciences, Inc. and the Laboratory of Neurosciences, National Institute on Aging of the National Institutes of Health, invite applications for the following research positions.

Analytical Chemist—The applicant should have a Ph.D. in analytical chemistry or related field with a minimum of three years of industrial or postdoctoral experience. Specific duties involve: (1) development of methods for the quantitation of drugs and metabolites in plasma and tissues, and (2) pharmacokinetic analysis. Experience in HPLC, GC, MS, NMR and extraction of drugs from biological samples is essential.

Pharmacologist—Individual should have a Ph.D. in pharmacology or related field with two to three years of experience in pharmacokinetics related to CNS-active drugs. Experience with tumor models and receptor binding assays is desirable.

Both individuals will be employed by Athena Neurosciences but will work full time as Guest Researchers within the Laboratory of Neurosciences, NIH, Bethesda, MD. Athena Neurosciences, Inc., located in San Carlos, California, is a biotechnology-based company focusing on molecular approaches to diseases of the nervous system. Salary will be competitive with industry standards and commensurate with qualifications. Please send curriculum vitae to: Stanley I. Rapoport, M.D., Chief, Laboratory of Neurosciences, Building 10, Room 6C 103, National Institutes of Health, Bethesda, MD 20892. An equal opportunity employer.

Athena Neurosciences, Inc. and Laboratory of Neurosciences, National Institute on Aging

UNIVERSITY OF MARYLAND COLLEGE PARK

Associate Dean Director of Resident Instruction

The Associate Dean provides academic and administrative leadership for academic affairs, including undergraduate programs, for the College of Life Sciences and the College of Agriculture.

The Associate Dean participates in the development of policies and decisions affecting agricultural and life sciences programs in the Colleges. He/She will have an active leadership role with college department chairs, faculty and students, and will work collaboratively with other administrative and academic personnel.

Responsibilities include: developing and administrating high quality academic programs (including curriculum); participation in resource allocation decisions; and serving as liaison to public schools, other colleges, extension faculty, and the community.

Qualifications include an earned doctorate in a life sciences or agriculture area; having tenure in an academic department of one of the colleges; a proven record of excellence (of five or more years) in college teaching and scholarship; evidence of effective leadership and organization skills; and a working knowledge of college of agriculture of life sciences.

Qualified individuals should submit a letter of application and a detailed resume including names, addresses, and phone numbers of three references who may be contacted, to:

Dr. Arthur N. Popper, Chairman Search Committee for Associate Dean/Director Department of Zoology Room 1200, Zoology/Psychology Building University of Maryland College Park, Maryland 20742

Complete applications should be received by January 15, 1988 for full consideration, but may be accepted until a suitable candidate is selected. *The University of Maryland is an Affirmative Action/Equal Opportunity Employer.*

Molecular Biologists

Wyeth-Ayerst Laboratories, a pioneer and pacesetter in pharmaceutical research, has several opportunities for Molecular Biologists at its Biotechnology and Microbiology Division in Radnor, PA. Educational requirements and experience level for these positions are: BS/BA + 2-5 years or MS/MA entry level – 2 years experience plus a background in recombinant DNA, virology, biochemistry, cell culture and animal studies. Candidates for these positions must also be highly motivated, self starters, who can work independently.

Successful candidates will be responsible for performing experimental procedures in molecular biology, biologicals and vaccine development, analyzing data and preparing reports.

We offer a highly competitive salary, extensive benefits and a state-of-the-art environment staffed with the best professionals in the field. Qualified candidates are invited to submit resume with salary requirements to **Position #187, Recruitment Manager, Wyeth-Ayerst Laboratories, Inc. P.O.Box 8299, Radnor, PA 19101.** An equal opportunity employer, M/F/V/H

Wyeth Laboratories

SANDOZ Ltd., a leading Swiss-based international company specializing in pharmaceuticals, agrochemicals and chemicals is offering a

POSTDOCTORAL FELLOWSHIP—Position in DRUG TARGETING WITH ANTIBODY-CONJUGATES

for a period of one to two years, in the Pharma division at its headquarters in Basle, Switzerland to an interested scientist with a recent Ph.D. in Biology or Biochemistry.

This challenging position offers the possibility to participate as a team member in the research of targeted drug delivery systems.

The planned activities in the field of synthesis of antibody-conjugates require know-how of Proteinand Medicinal chemistry. Knowledge in the field of Tissue culture and Immunology would be advantageous.

Applications with the usual documentation, including a list of publications should be sent to:

SANDOZ LTD. Personnel Department Ref. 7809 Attn.: Mr. R. Zbinden CH-4002 Basle/Switzerland



Meteorologists

With interest in marine meteorology, air-sea interaction, climate dynamics and/or marine cyclogenesis are invited to apply for appointments to the scientific staff in the Physical Oceanography Department. The Department, which has had a traditional interest in air-sea interaction on diverse scales, is eager to rebuild its group in meteorology and is interested in appointing atmospheric scientists with strong interest in the interaction between the atmosphere and the ocean. Applicants could have experience in either numerical modeling, theory and/or field work. Opportunities exist for participation in on-going programs in air-sea interaction and for close cooperation with the Meteorology faculty of the Massachusetts Institute of Technology. Opportunities for participation in graduate level teaching and student theses research exist in administered by "MIT" and the Institution. The Physical Oceanography Department includes 28 scientists involved in various research programs focused on geophysical fluid dynamics and physical oceanography and in teaching and advising graduate students. Appointments are being considered at the Assistant Scientist, Associate Scientist and Senior Scientist level. Applicants are requested to send curriculum vitae, publication list and names of 3 references to: Robert C. Beardsley, Chairman Box 54P



WOODS HOLE OCEANOGRAPHIC INSTITUTION

Woods Hole, MA 02543 An equal opportunity employer M/F/H/V

Career Opportunities With A World-Class Leader

If you're interested in a career with a leading pharmaceutical company, why not begin your search with a company respected the world-over for its profound commitment to care, to quality, and to innovation? Baxter Healthcare Corporation has demonstrated that commitment for over 30 years. Currently, our Hyland Division is seeking qualified individuals for these opportunities:

Senior Research Scientist — Virologist

As part of the R&D department, you will initiate, design, and implement animal virology laboratory studies in efforts to develop therapeutic human monoclonal antibodies. This function will utilize state-ofthe-art techniques for studying the role of viruses and viral sub-units in hybridoma and mAb function and production. You will also be responsible for devising action plans in order to coordinate work in conjunction with R&D project needs. Qualification requirements include: Ph.D. with two years post-doctoral training in animal virology with demonstrated expertise in immunology and biochemistry; capability to design and direct bench-level experiments; and the ability to interpret and communicate research results. Working knowledge of mAb technology is desired.

Senior Research Scientist – Cell Culture Process Engineering

In this R&D position, you will utilize state-of-theart dynamic modeling techniques to design and evaluate technology and process configurations for pilot-scale mammalian cell culture production of GMPgrade therapeutic proteins. In addition, you will also devise and automate sensor and process control strategies, and develop research programs to study mass and energy transfer kinetics in order to maximize production and purification efficiencies. Qualification requirements include: Ph.D. with at least two years academic or industrial post-doctoral training in biochemical engineering or equivalent, and demonstrable expertise in the theory and practice of cell culture process engineering. Experience with hybridomas and monoclonal antibodies is desired.

If you qualify for either of these positions, you will receive all the advantages of working with a worldclass leader; including an excellent salary and benefits package, and a stable, yet creative, work environment. For immediate consideration, please forward your resume to: **Ms. Liz Di Bernardo, Human Resources Dept., Baxter Hyland Division, 444 W. Glenoaks Blvd., Glendale, CA 91202.** An Equal Opportunity Employer.

Hyland Division

Baxter

POSTDOCTORAL POSITIONS

Postdoctoral research fellowship positions are available in the Molecular Biology, Cell Biology, Biochemistry and Immunology Laboratories at the Jerome H. Holland Laboratory for the Biomedical Sciences. The positions are supported by individual investigator awards and by institutional funds. Salaries and benefits are competitive. The investigators and their research interests are:

Wilson H. Burgess: Structure and function of polypeptide growth factors and receptors

William Drohan: Molecular biology of coagulation and fibrinolytic polypeptides

Joan T. Harmon: Molecular and cellular biology of megakaryopoeisis

Leon W. Hoyer: Immunochemical properties of Factor VIII inhibitors

Kenneth Ingham: Physical biochemisry of heparin-binding proteins

Graham Jamieson: Structure and function of platelet receptors

Gene Liau: Molecular and cellular biology of the extracellular matrix and atherogenesis

Thomas Maciag: Molecular and cellular biology of angiogenesis and aging

James Perdue: Molecular and cellular biology of growth factors in development

Dorthea Scandella: Regulation of gene expression

Dudley Strickland: Cellular biochemistry of proteases and inhibitors

Andrea Tenner: Biochemistry of complement receptors

Jeffrey Winkles: Gene expression and the control of vascular cell proliferation

The American Red Cross recently established the Jerome H. Holland Laboratory as part of its commitment to a strong investigator-initiated basic research program. The American Red Cross promotes an open, collegial environment which facilitates scientific interactions. Send curriculum vitae, names of three references and an indication of the investigator and area of research interest to Dr. Howard Sandberg, American Red Cross, Research and Development Administration, 15601 Crabbs Branch Way, Rockville, Maryland 20855 U.S.A.

An Equal Opportunity/Affirmative Action Employer M/F/H

American Red Cross BIOMEDICAL RESEARCH + DEVELOPMENT

TEXAS A&M COLLEGE OF MEDICINE POSTDOCTORAL RESEARCH

Applications are invited for a research position in the area of molecular biology of membrane proteins and membrane functions.

Send curriculum vitae and names of three references to: Garret M. Ihler, Department of Medical Biochem-istry and Genetics, Texas A&M College of Medicine, College Station, TX 77843–1112. Equal Opportunity through Affirmative Action.

POSTDOCTORAL RESEARCH ASSOCIATE available immediately to study effects of alcohol on membrane protein binding and transport of folate. Back-ground in molecular physiology/biochemistry tech-niques, alcohol metabolism, or folate biochemistry desirable. Please send curriculum vitae and three reference letters to: Dr. Kenneth McMartin, Department of Pharmacology, Louisiana State University Medical Center, Shreveport, LA 71130. An Equal Opportunity Employer

POSTDOCTORAL RESEARCH ASSOCIATE-Position available for an electrophysiologist to characterize the membrane properties associated with dopamine receptor activation. Preference given to applicants experi-enced with extra- or intracellular recording techniques. Please send curriculum vitae with names of three references to: Dr. D. C. German, Department of Physiolo-gy, University of Texas Southwestern Medical Cen-ter, Dallas, TX 75235. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE **POSITION** for the study of motile systems in muscles and cells. Projects include regulation of actomyosin ATPase, mechanism of kinesin-microtubule ATPase. functions of motile systems in cell division. Experience in protein biochemistry or cell and molecular biology preferred. Send curriculum vitae and names of references to: Dr. E. W. Taylor, Department of Molecular Genetics and Cell Biology, The University of Chicago, 920 East 58th Street, Chicago, IL 60637. An Equal Oppor-tunity/Affirmative Action Employer.

POSITIONS OPEN



United States Department of Agriculture

POSTDOCTORAL RESEARCH ASSOCIATE USDA-ARS has a position available for a molecular biologist in genetic improvement of fruit. The project involves the construction of cDNA libraries from pe analysis of fruit specific cDNAs and analysis for RFLPs in several cultivars using those cDNAs as probes. The salary is \$27,172 (GS-11) or \$32,567 (GS-12). For information on application procedures contact Alice MacNamara: 301-344-2756. Applications in response to this advertisement should be marked 7NO29 and sent to: Dr. Ralph Scorza, USDA-ARS, Appalachian Fruit Research Station, Route 2, Box 45, Kearneys-ville, WV 25430; Telephone: 304-725-3451.

ARS is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

Research associate position available (Ph.D. in medicinal chemistry or pharmacology) to conduct synthesis and pharmacological evaluation of few novel nitrogen heterocycles that have exhibited some analgesic, anti-inflammatory and hyperglycemic activities on preliminary testing. Basic Salary: \$21,200 per year. If interested, please apply before 31 January 1988: **Dr. Ken Redda, College of** Pharmacy and Pharmaceutical Sciences, Florida A&M University, P.O. Box 367, Tallahassee, FL 32307; Telephone: 904-599-3636.

POSTDOCTORAL RESEARCH FELLOW

Position available immediately for microbiologist, molecular biologist, and/or enzymologist for research on the cloning and expression of genes from streptomycetes involved in the degradation of pesticides. Salary is \$20,000 per annum plus fringe benefits. Send résumé, and names of three references to: Marilyn Speedie and Burton Pogell, School of Pharmacy, University of Maryland, 20 North Pine Street, Baltimore, MD 21201. An Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL/RESEARCH SCIENTIST **POSITIONS**—Assistant research scientists positions (non-tenure-track) are available for (i) a Ph.D. in biological sciences or chemistry with strong background in protein chemistry and postdoctoral experience in lens crystallin protein chemistry work to study the role of crystallin protein chemistry work to study the role of crystallin glycation in HMW aggregation and catract development and (ii) a biochemistry Ph.D. with postdoc-toral research experience in membrane biochemistry and toral research experience in membrane biochemistry and protein kinase C to study protein kinase C phosphoryl-ation of erythrocyte membrane proteins in sickle cell disease. Salary range \$19,000 to \$21,000 depending on qualifications. Recent Ph.D.'s may also apply for a research fellow position in those areas. Please send curriculum vitae, brief description of research experience, and names of three references by 31 December 1987 to: and names of three references by 31 December 1987 to: Dr. E. C. Abraham, Department of Cell and Molecu-lar Biology, Medical College of Georgia, Augusta, GA 30912–3331. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCHER: Required immediately to work on the cloning, sequencing, and regulation of dehydrogenases involved in steroid hormone and chemical carcinogen metabolism. Previous experience in molecular biology desirable. Salary and position title commensurate with experience. Deadline for applications is 24 December 1988. Please send curriculum vitae and names of three references to: Dr. Trevor M. Penning, Department of Pharmacology, University of Pennsylvania School of Medicine, Phila-delphia, PA 19104–6084.

POSTGRADUATE RESEARCH POSITIONS

Postdoctoral positions available for 2 to 3 years to study molecular biology/genetics of retinal degenera-tions. Background in protein chemistry and experience in molecular biology are desirable. Contact: Doctors Deb-ora Farber and J. Bronwyn Bateman, Jules Stein Eye Institute, UCLA School of Medicine, Los Angeles, CA 90024. Telephone: 213-206-6800 or 213-206-6349. UCLA is an Affirmative Action/Equal Opportunity Employer.

Associate Senior Investigator Ultrastructural Pathology

Smith Kline & French Laboratories, a leader in pharmaceutical research, is seeking an experienced scientist with a background in cell biology, pathology or anatomy to assist with the scientific and supervisory requirements o the ultrastructural pathology unit located in suburban Philadelphia.

The successful candidate will

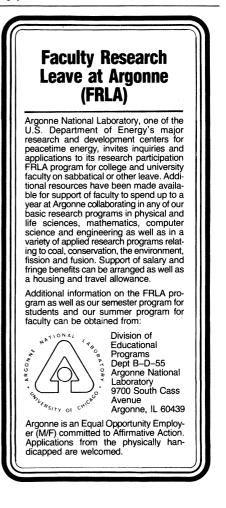
- supervise an Associate Electron Microscopist, monitoring laboratory productivity and quality and coordinating laboratory efforts. • assume leadership role in developing improved procedures and in implementing new procedures in electron
- conduct independent investigational studies relevant to the pathobiology of therapeutic agents and the drug
- development process.
 collaborate with morphological pathologists to complete investigational studies which require electron
- interact with investigators in Research Departments, and in conjunction with the Assistant Director of Experimental Pathology, determine if morphological assistance would support research efforts and if support can be provided by the Ultrastructural Pathology Laboratory Staff.

Candidates are required to have

- a Ph.D. in Anatomy, Cell Biology, Pathology or demonstrated equivalent experience (4 to 5 years laboratory experience in one of the aforementioned disciplines and research publications which demonstrate independent research efforts).
- competence in electron microscopy including tissue processing, staining technology and experience with various embedding materials.
- experience in immunocytochemistry and cytochemistry, or analytical electron microscopy.
- supervisory experience.

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. For confidential review, please forward your C.V. and names of three references to: Mary Ann McCarry, Senior Employment Consultant-C0058, Smith Kline & French Laboratories, Research & Development, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.





POSTDOCTORAL RESEARCH ASSOCIATE POSITIO

Air Force Office of Scientific Research

Graduate Air Force Laboratory Graduate Fellowship Program

The USAF Laboratory Graduate Fellowship Program sponsored by the Air Force Office of Scientific Research and conducted by Universal Energy Systems, Inc. (UES) provides 3 year fellowships for qualified graduate students of U.S. Institutions of higher education.



- Electrical Engineering
- Mechanical Engineering
 Aeronautical and
- Astronautical EngineeringBiomedical Engineering
- Chemical, Industrial and Civil Engineering
- Physics
- Computer Modeling and Computer Science
- Chemistry
- Mathematics
- Behavioral Science
- Metallurgy
- Meteorology and Geophysics
 Life Sciences, Biology
- and Biophysics
- Toxicology

JES Universal Energy Systems

Equal Opportunity Employer

To be eligible for participation, individuals must be U.S. citizens, and receive their baccalaureate by the Fellowship year. All qualified applicants will receive consideration without regard to age, color, race, religion, sex, or national origin.

Interested individuals are requested to contact: LGFP Administrator Universal Energy Systems, Inc. 4401 Dayton-Xenia Road Dayton, Ohio 45432 Phone (800) 533-7532

Committed To Scientific Excellence Opportunities In Molecular Biology The Sterling Research Group, the worldwide pharmaceutical research and development organization of Sterling Drug Inc., is committed to excellence in pharmaceutical research and development. We have a talented team of pharmaceutical discovery professionals exploring many exciting new therapeutic concepts at our major R&D center located near Albany, New York.

We are currently forming a new group devoted to the application of molecular biology, genetic engineering and monoclonal antibody technology to the discovery of novel chemical entities.

Our objective is the development of a biotechnology capability to support a results-oriented program of innovative pharmaceutical research and development. Molecular biology will be a full partner in contributing to success in introducing new therapeutic agents to the market place.

Opportunities currently exist in the following areas:

- Gene Cloning
- Gene Expression
- Monoclonal Antibodies

If you have a Ph.D. in Molecular Biology and would like to learn more about available positions, please send resume to:

Mr. William F. Sheldon

Employment Manager

Sterling-Winthrop Research Institute Sterling Research Group

A Division of Sterling Drug Inc.

Columbia Turnpike

Rensselaer, New York 12144

An Equal Opportunity Employer M/F/H/V

NATIONAL CANCER INSTITUTE National Institutes of Health, Public Health Service

CANCER PREVENTION FELLOWSHIP PROGRAM, CPFP

The DIVISION OF CANCER PREVENTION AND CONTROL is accepting applications for CPFP. The primary purpose of this program is to attract individuals from a multiplicity of health science disciplines into the field of cancer prevention and control research. The program provides for: participation in DCPC Cancer Control Academic Program (a formal fourmonth course in cancer prevention and control); 20 months at NCI working directly with individual preceptors on ongoing cancer prevention and control projects and the NCI Year 2000 Goals; one year at a DCPC-approved cancer control program or State Health Department (may be optional). Funding permitting, up to 10 Fellows will be accepted for up to three years of training, beginning on August 28, 1988.

APPLICANTS MUST (BY THE DEADLINE): (1) Possess an M.D. or D.O. degree from an accredited medical school in the U.S., Puerto Rico, or Canada. (Foreign medical graduates—American citizens or Resident Aliens who have received their medical degree from a medical school outside the U.S., Puerto Rico and Canada and that is listed in the World Health Organization's *World Directory of Medical Schools*—must be certified by the Educational Commission for Foreign Medical Graduates [ECFMG]. Current certification, ECFMG or Foreign Medical Graduate Examination in the Medical Sciences [FMGEMS], is required for all foreign medical graduates.) Must have satisfactorily completed an internship (PG1) approved by the Council on Medical Education. (However, application will be accepted when internship is an integral part of medical school curriculum or incorporated as part of residency training.) — *OR*—Possess other accredited U.S., Puerto Rican, or Canadian doctoral degree (Ph.D., Dr. P.H., D.D.S., etc.) in a discipline related to cancer prevention and control research; biomedical, medical, nutritional, public health or behavioral sciences. (Foreign doctoral graduates must provide documented evidence that the foreign education is comparable to doctoral education received in accredited institutions noted above.); (2) Possess U.S. citizenship or be a resident alien eligible for citizenship within four years; (3) Complete and return the application packet by the deadline (including arranging for official academic transcripts and four, current, original letters of reference to be sent directly by the academic institutions and referees to the CPFP Coordinator)

For questions concerning the program's scientific or administrative aspects, please call Dr. David Poskanzer or Ms. Nancy Garner, respectively. Application packets may be obtained by sending a *POSTCARD* with your name and home address to **CPFP Coordinator**, NIH/NCI/DCPC/CCAB, Blair Building, Room 4A05, 9000 Rockville Pike, Bethesda, MD 20892-4200, or call (301) 427-8788. Please do not send any material until after you have read the instructions in the application packet.

> DEADLINE FOR RECEIPT OF APPLICATIONS: JANUARY 15, 1988 (The NIH is an Equal Opportunity Employer)

Career in Switzerland?

Dynamic, expanding diagnostics company is looking for a

R & D MANAGER IMMUNOCHEMISTRY

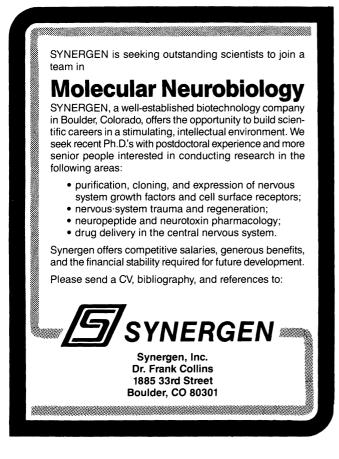
to establish and lead a team of research scientists and a research program in immunochemistry and management of joint projects with outside institutions.

Do you have a Ph.D. degree with a strong background in Biochemistry or Immunology and proven experience in the development of radio-isotopic and non-isotopic immunoassay development?

Please apply to: Mrs. M.v. Anacker, Human Resources,

🕮 Merz + Dade AG

Bonnstrasse, 3186 Düdingen, 20037/439111 A Subsidiary of Baxter Travenol Laboratories



SENIOR SCIENTIST PhD PROTEIN BIOCHEMIST



offmann-La Roche, an industry leader in pharmaceuticals, vitamins and fine chemicals, has a career opportunity for a Senior Scientist in our Bioprocess Development Department.

You will be responsible for protein isolation and purification of natural and recombinant proteins, using conventional and state-of-the-art technology. You must possess a PhD in Biochemistry and 2-3 years' postdoctoral experience in enzymology and protein chemistry; knowledge of HPLC and FPLC desirable.

Roche offers a competitive salary, excellent benefits and a professional environment conducive to growth. Please send your resume to: Eleanor M. Malone, Dept. FK, Hoffmann-LaRoche Inc., Nutley, New Jersey 07110. We are an equal opportunity employer.



Working Today For A Healthier Tomorrow.

Penior Research Scientist

As a major international pharmaceutical manufacturer and a leader in industrial biotechnology, Bristol-Myers Company in Syracuse, NY has an excellent career opportunity in the Analytical Research Department of its R&D Division.

The scientific researcher selected will support our drug targeting program by leading an analytical group backing up the multidisciplinary teams developing proteins or antibodies as therapeutic agents or carriers of therapeutic agents. Involvements will include development/implementation of analytical techniques to characterize and ensure quality control of biological macromolecules.

The right person will be familiar with relevant analytical techniques such as gel electrophoresis, isoelectric focusing, protein chromatography, fluorescent antibody cell sorting and immunoassays. Qualifications include a PhD in Analytical Chemistry with background in biochemistry, OR PhD in Biochemistry or Immunology with significant analytical experience.

We offer a competitive compensation package and a comprehensive benefits program which includes relocation assistance to a superb upstate NY living area. Interested candidates should submit a resume with salary requirement, in confidence, to: EMPLOYMENT MANAGER



BRISTOL-MYERS COMPANY RESEARCH AND DEVELOPMENT DIVISION P.O. Box 4755, Syracuse, New York 13221-4755 An equal opportunity employer M/F/H/V

NUTRITIONAL BIOCHEMIST

Health Care

Today's healthcare industry is an increasingly high-tech field of sophisticated products. Baxter Healthcare Corporation is in the forefront in a variety of new and emerging technologies.

In the area of renal therapy, we have a need for a scientist to conduct research on amino acid, lipid, and mineral metabolism in chronic renal failure. Our work will develop new product concepts for improving nutritional, hormonal, and mineral abnormalities in uremia. The successful candidate will have a Ph.D. in NUTRITIONAL BIOCHEMISTRY and 1-3 years post-doc and/or industrial experience. Prior research experience in renal therapy is desirable but not essential.

We provide a challenging scientific environment that provides excellent growth potential, a competitive salary, and comprehensive benefits package including 401 (k) and stock purchase. For confidential consideration, please forward your resume and salary history to: **Baxter Healthcare Corporation**, **Route 120 and Wilson Rd.**, **Attn: Human Resources Director (RLA-1N), Round Lake, IL 60073.** Equal Opportunity Employer.



ASSOCIATE EDITOR SCIENCE MAGAZINE

Editorial position available for a PhD biochemist or molecular biologist with two or three years of research experience and specific capability in one or more of the following areas: protein structure and function, enzymology, cell biology, or immunology. We are seeking someone with wide general interest in quantitative aspects of the life sciences and publications in the refereed literature. Editors have wide responsibilities in manuscript selection ranging from solicitation to editing for clarity. Previous editorial experience is not required. This is a full-time position in our Washington offices.

Please send resume with cover letter including salary requirements to:

Ms. Carolyn Bell AAAS 1333 H Street, NW Washington, DC 20005

EOE

A Career With Results.

If you're not getting everything you want from your career, consider scientific opportunities at Syva. We're a subsidiary of Syntex and a top medical diagnostics company that manufactures and markets a broad range of tests that can diagnose infectious diseases or detect clinically significant substances.

Senior Scientist

You will oversee and implement new approaches in assay development. This may also include development of chemistry protocols applicable to instrumentation. This position requires a PhD in biochemistry or related field. Strong analytical biochemistry skills are essential including protein modification, purification and conjugation. Assay development skills are highly desirable. Extensive experience with clinical instrumentation preferred.

Syva offers an attractive benefits package that includes an incentive bonus program. For immediate conside-



ration, please send your resume to: Syva, Professional Staffing, Dept. DP/S12, P.O. Box 10058, Palo Alto, CA 94303. An equal opportunity employer.

POSTDOCTORAL RESEARCH ASSOCIATE **POSITION** available immediately for research in the pathophysiology and biochemistry of diabetic peripheral neuropathy (adrenergic receptors on lymphocytes and monocytes, adenyl cyclase assay, polyol pathway and related disturbances). Experience with radioreceptor and nology (including monoclonal antibodies) and small animal research required; familiarity with leukocyte isolation, cell sorting methodologies desirable. Favorable work environment, competitive salary commensurate with experience. Send curriculum vitae and three references to: Jonathan Jaspan, M.D., University of Chica-go, 5841 South Maryland Avenue, Box 435, Chicago, IL 60637.



PRESIDENT STATE COLLEGE OF OPTOMETRY STATE UNIVERSITY OF NEW YORK

The Presidential Search Committee, established by the College Council, invites nominations and applications Founded in 1971, the State University College of

Optometry is a free-standing professional institution within the State University of New York System with a major clinical facility, the University Optometric Center.

An urban institution located in New York City, the College offers a 4-year professional curriculum leading to the degree of Doctor of Optometry. Graduate programs in which the M.S. and Ph.D. degrees in vision science are offered, are supported by an active research program including activities of the Schnurmacher Institute for Vision Research.

A Doctor of Optometry degree or equivalent is re-quired in addition to those leadership qualifications expected of a candidate for the presidency of a professional institution of higher education. Applications and nominations with current résumés

should be sent to:

Dr. Edward Cordes, Chairman Presidential Search Committee State College of Optometry State University of New York 100 East 24th Street New York, NY 10010

The committee began deliberations on 15 September 1987. SUNY is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE

A position is available in the Department of Pharmacology and Toxicology at Virginia Commonwealth University. A doctorate in pharmacology, postdoctoral expe-rience, and evidence of research productivity are pre-ferred. A CNS pharmacologist is needed who is specializing in the mechanism of action of drugs of abuse which include cannabinoids, cocaine and phencyclidine. Exper-tise in some of the following areas is desirable: autoradiography, receptor binding, pharmacokinetics, molecular modeling with computer-assisted design and mass spec-trometry. This individual will contribute to ongoing studies and be encouraged to pursue related independent studies. Salary based on qualifications. Send curriculum vitae, reprints, and names of three references to: Dr. Billy R. Martin, Professor, Department of Pharma-cology and Toxicology, Virginia Commonwealth University, Box 113 MCV Station, Richmond, VA 23298–0613, by 31 December 1987. A complete job description and qualifications will be sent on request. Virginia Commonwealth University is an Equal Opportuni-ty/Affirmative Action Employer. Women and minorities are encouraged to apply

RESEARCH FELLOW to conduct studies on the nechanism and regulation of expression of a neutral endopeptidase. Studies involve modification and expres-sion of clonal cDNA. Experience in molecular biological techniques preferred. Stipend commensurate with expe-rience. Send curriculum vitae and names of references to: Dr. Louis Hersh, Biochemistry Department, South-western Graduate School, 5323 Harry Hines Boule-vard, Dallas, TX 75235. An Equal Opportunity University.

POSITIONS OPEN

RADIOBIOLOGIST/PHOTOBIOLOGIST

A tumor biologist is required for a permanent research Career Scientist position. Applicants, Ph.D. or equiva-lent, should have experience in radiation and/or photobiology as applied to cancer treatment. Applications with three references to: **Dr. B. C. Wilson, Ontario Cancer** Treatment and Research Foundation, 711 Conces-sion Street, Hamilton, Ontario, Canada L8V 1C3 by 19 December 1987. In accordance with Canadian immigration requirements preference will be given to Canadian citizens and permanent residents.

RESEARCH ASSISTANT PROFESSOR

Position available for Ph.D. with postdoctoral experience to study subcellular mechanisms of hepatic carbohy-drate metabolism. Experience with molecular biology techniques essential. Successful candidate will participate in an ongoing project involving in situ hybridization histochemistry. Send curriculum vitae and names of three references to: Dr. Robert R. Cardell, Professor and Chairman, Department of Anatomy and Cell Biolo-gy, University of Cincinnati, College of Medicine, 231 Bethesda Avenue, Cincinnati, OH 45267–0521. An Equal Opportunity/Affirmative Action Employer

RESEARCH ASSISTANT: SUNY Stony Brook is seeking an individual with a B.S./B.A. in an appropriate scientific discipline (e.g., science, biology preferred). This candidate would have an interest in contributing to ongoing research on pathogenesis of musculoskeletal disorders. Experience with animals in laboratory setting required The is a professional lawal protein evolution disorders. Experience with animals in laboratory setting required. This is a professional level position; salary is competitive and carries excellent fringe benefits. Send résumé to: Clinton T. Rubin, Ph.D., Director, Mus-culo-skeletal Research Laboratory, Department of Orthopaedics, SUNY Stony Brook, Stony Brook, NY 11794–8181. SUNY Stony Brook is an Affirmative Ac-tion/Equal Opportunity Educator and Employer.

RESEARCH ASSOCIATE: Biostatistical analysis of a large-database study of risk factors in early child development. Excellent publication opportunity. Ph.D. or near Ph.D. in statistics, epidemiology or other field with concentration in statistics. Academic appointment for Ph.D. Send curriculum vitae to: Claire B. Ernhart, Ph.D., Department of Psychiatry, Cleveland Metro-politan General Hospital, Case Western Reserve Uni-versity, 3395 Scranton Road, Cleveland, OH 44109. Equal Opportunity Employer

RESEARCH ASSOCIATE. Collaborate with NIH-**RESEARCH ASSOCIATE**. Collaborate with NIH-funded studies of humoral factor(s) affecting cell ion transport and growth in hypertension [see AJP 251, H984 (1986)]. Applicant should have Ph.D. in bio-chemistry, pharmacology, or cell biology, with postdoc-toral training. Experience with cell culture and with chromatographic procedures, including HPLC, neces-sary. Beginning salary up to \$36,000. Send curriculum vitae to: H. W. Overbeck, M.D., Ph.D., Departments of Medicine and Physiology University of Alabama at of Medicine and Physiology, University of Alabama at Birmingham, Birmingham, AL 35294. Equal Opportu-nity/Affirmative Action Employer.

MEDICAL RESEARCH COUNCIL OF CANADA RESEARCH SCHOLAR

The Department of Anatomy at Dalhousie University The Department of Anatomy at Dalhousic University is in the position to sponsor a qualified applicant for the 1988 MRC Research Scholar competition. Candidates must have a Ph.D., M.D. or an equivalent degree and have undertaken postdoctoral training. Applications are encouraged from researchers in the following areas: (i) developmental neurobiology, (ii) neuroanatomy, (iii) neuroendocrinology, (iv) retinal cell biology and (v) evolutionary biology. Applications should include curric-ulum vitae, representative reprints, summary of present research interests, outline of future research directions and the names of three referees. Please contact: Dr. D. G. Gwwn. Professor and Head. Denartment of Anato-G. Gwyn, Professor and Head, Department of Anato-my, Faculty of Medicine, Dalhousie University, Hali-fax, Nova Scotia, Canada, B3H 4H7, 902-424-2051 by 1 February 1988. In accordance with Canadian immigration regulations, priority will be given to Canadian citizens and permanent residents of Canada. Dalhousie University has a policy of affirmative action in hiring qualified women staff

POSITIONS OPEN

RESEARCH SCIENTIST to participate in a vigorous program of research with a focus on application of ous program of research with a focus on application of statistics to biotechnology and molecular biology. A Ph.D. in biophysics or other strongly quantitative bio-logical field is required. Training or experience in mathe-matical statistics is highly desirable. Strong computer skills are essential. Please send curriculum vitae and the names of three references to: Charles Lawrence, Ph.D., Biometrical Laboratory, Wadwyorth Carter for Labor Biometrics Laboratory, Wadsworth Center for Labo-ratories and Research, Empire State Plaza, Albany, NY 12201.

RESEARCH TECHNICIAN

We are a medical/research center located in NE Philadelphia with several positions available for research technicians. Areas of research include tissue culture, virus research, cell culture, DNA purification, molecular biology, cloning, enzyme purification and monoclonal anti-body therapy. Bachelor's degree (or major) in chemistry, biology, microbiology or biochemistry required. Basic biology, microbiology or biochemistry required. Basic courses in genetics or organic chemistry helpful, previous experience preferred. Must be well organized, detail oriented and able to do some lifting. We offer a competi-tive salary and benefits package. Send résumé to: **Re-search Technician**, Fox Chase Cancer Center, 7701 **Burholme Avenue**, Philadelphia, PA 19111. Equal Octoarting European Opportunity Employer.

RESEARCH TECH—Two research technician posi-RESEARCH TECH—Iwo research technician posi-tions available in the Department of Radiation Medicine, Vincent T. Lombardi Comprehensive Cancer Research Center, Georgetown University Medical Center. B.S. degree and experience in radiation biology techniques and/or molecular biology techniques required. Work will involve studies of DNA damage by ionizing radiation. Georgetown University is an Affirmative Action/Equal Emcongression Conversity is an Algumative Action/Equal Em-ployment Opportunity Employer. Send résumé to: A. Drits-chilo, M.D., Chairman, Department of Radiation Medicine, 3800 Reservoir Road, NW, Washington, DC 20007.

SENIOR NEUROBIOLOGIST

The Andrus Gerontology Center at the University of Southern California is seeking a senior neurobiologist whose demonstrated interests are compatible with long-term contributions to the neurobiology of aging. A description of research interests and a resumé should be earth with Longer Application and a resume should be sent by 15 January 1988 to: Search Committee, An-drus Gerontology Center, University of Southern California, University Park MC 0191, Los Angeles, CA 90089. An Equal Opportunity/Affirmative Action Employer.

AUSTRALIA MONASH UNIVERSITY DEPARTMENT OF BIOCHEMISTRY SENIOR TUTOR

Postdoctoral graduates or those about to complete their doctorate to participate in ongoing research in area of cell biology of connective tissue function. Position involves limited teaching to Science and Medical students. Appointment according to Award of Universities Academic Staff Board. Duration: three calendar years. Salary: A\$24,535 to A\$28,029 per annum. Enquiries to: Associate Professor B. N. Preston, telephone 613-565-3725 or Dr. C. J. Handley, telephone 613-565-3756, from whom job description available. Applications including Ref. no. 30213A, curriculum vitae and three referees to: The Registrar, Monash University, Clay-ton VIC 3168, Australia, by 8 January 1988.

An Equal Opportunity Employer

TENURE-TRACK POSITION: FOCUS ON RE-SEARCH IN SCIENCE EDUCATION. Rank based on qualifications. Required: Ph.D. in a science discipline or doctorate in science education with a strong disciplinary background; proven expertise in science education research with a cognitive science perspective; a commit-ment to quality teaching of pre-service elementary teachers and non-science majors. Partial appointment to an-other College of Science Department possible. Begins fall 1988. Send cover letter and curriculum vitae; have three recommendations sent by 15 January 1988 to: Search Committee, Department of Natural Science, San Die-go State University, San Diego, CA 92182–0324. Affirmative Action/Equal Opportunity/Title IX Employer. No discrimination vs. handicapped.

The Tobacco and Forage Research Unit, Agricultural Research Service, U.S. Department of Agriculture, Lexington, Kentucky, is accepting applications from qualified plant physiologists for the following position: SUPERVISORY PLANT PHYSIOLOGIST, GM-

SUPERVISORY PLANT PHYSIOLOGIST, GM-13/14/15 (Research leader). Assignment presents an opportunity to conduct research on plant physiological processes, genetics and cytogenetics to improve plant quality. Must be U.S. citizen. Salary \$38,727 to \$69,976, based on qualifications and experience. Ph.D. plus extensive research experience is desirable. Usual Federal Government benefits apply. For further information and application packet telephone: 301-344-1508, U.S. Department of Agriculture. Beltsville, MD 20705. Refer to S-8-002 when inquiring about vacancy. Completed applications must be received by 1 January 1988. USDA is an Affirmative Action/Equal Employment Opportunity Employer.

TERRESTRIAL VERTEBRATE ECOLOGIST. A tenure-track appointment at assistant professor level beginning fall 1988. Applicants with an ongoing tropical research program preferred. Teaching duties in comparative anatomy and ecology. Applicants should send curriculum vitae, a statement

Applicants should send curriculum vitae, a statement of research and teaching objectives, and names and addresses of three referees by 15 January 1988 to: Chairman, Vertebrate Ecologist Search Committee, Department of Biology, Tulane University, New Orleans, LA 70118.

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

A TOXICOLOGIST GS-12 (\$32,567) or GS-13 (\$38,727) is being sought for the U.S. EPA, Region 8, Denver, Colorado. Duties include identifying risks of exposure to contaminants in drinking water; working with other agencies, public water systems and general public to minimize risks to public health. Federal job application packages can be obtained from: Office of Personnel Management, P.O. Box 25167, Denver, CO 80225 or call OPM at: 303-236-4159. State you are applying for the toxicologist vacancy #DD-6280. Applications must be postmarked or OPM notified by telephone of the intent to file an application by 18 December 1987.

TWO TENURE-TRACK FACULTY POSI-TIONS for August 1988 at assistant/associate professor level in biochemistry and organic chemistry. Ph.D. required; postdoctoral experience desirable. Teaching at graduate/undergraduate levels. Active research program expected. Research specialization is open. Send curriculum vitae, transcripts, research plans, and three letters of reference to: L. Keller, Department of Chemistry, Florida International University (FIU), Miami, FL 33199. Closing date: 11 February 1988. FIU, The State University of Florida at Miami, has an enrollment of 17,000 students. A new master's program in chemistry is in place; a new chemistry/physics building to open in 1990. FIU is an Affirmative Action/Equal Opportunity Employer.

VERTEBRATE ZOOLOGIST

The Trinity College Department of Biology invites applications for a tenure-track position at the level of assistant professor beginning in the fall 1988 term. Applicants must have a Ph.D. degree and be broadly trained in the area of vertebrate zoology. Postdoctoral experience is preferred but not required. Applicants are expected to offer an intermediate level course with laboratory which emphasizes the organismic aspects and the diversity of vertebrates; to offer a second course to be mutually agreed upon; to participate in a team-taught introductory course; to periodically instruct a freshman seminar; and to pursue a program of independent research in which upper level students may participate. Commitment to the education of major and non-major students is essential. Send curriculum vitae, undergraduate and graduate transcripts, and three letters of recommendation to:

Donald B. Galbraith Chairman Department of Biology Trinity College Hartford, CT 06106 Deadline for applications is 15 January 1988. Equal

Opportunity/Affirmative Action Employer.

4 DECEMBER 1987

DIRECTOR, JOHN E. FOGARTY INTERNATIONAL CENTER FOR ADVANCED STUDY IN THE HEALTH SCIENCES NATIONAL INSTITUTES OF HEALTH PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES

The National Institutes of Health invites nominations and applications for the position of Director, John E. Fogarty International Center for Advanced Study in the Health Sciences (FIC). The Center provides the facility for the assembly of scientists and leaders in the biomedical, behavioral, and related fields for discussion, study, and research in the health sciences at an international level; conceives, designs, develops, and conducts studies on current and emerging international health issues; awards scholarships to outstanding individuals for the purpose of encouraging creative, speculative thought and contributions to advanced study; awards fellowships for collaborative research in the United States and abroad; facilitates and coordinates NIH activities and functions concerned generally with the health sciences at the international level; provides a central point for receiving, assisting, and/or briefing special foreign visitors to NIH; provides administrative support to the NIH Visiting Program; and provides interface between NIH and other agencies and international organizations.

This is a Civil Service position in the Senior Executive Service (SES), with an authorized salary range from \$64,700 to \$73,400 per annum (currently limited to \$99,500) depending on qualifications. Candidates may be eligible for Physicians Comparability Allowance up to \$20,000 per year. Alternately, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service. The SES individual selected, if not presently in the SES, must serve a one-year probationary period.

The mandatory qualifications are: (1) meet the minimum educational requirements for Medical Officer, GS-602, or Health Scientist Administrator, GS-601 (or equivalent combination of experience and education), as defined in the U.S. Office of Personnel Management Handbook X-118, Qualification Standards for Positions under the General Schedule, which is available in Federal Personnel Offices and Federal Job Information Centers; and (2) have knowledge of research programs in the biomedical sciences and international health activities. In addition, candidates must meet the following managerial/executive qualifications: Demonstrated competence to assume leadership responsibilities in: (1) assuring that key national and agency goals, priorities, and values are considered in making program decisions; (2) establishing effective external communications by being a representative spokesperson for the organization, and maintaining working relationships within the organization and with outside key individuals and groups; (3) developing policy, directing and guiding programs and projects, including establishing short-term and long-term goals and priorities, and the structure and processes necessary to carry them out; (4) obtaining and allocating the fiscal and material resources necessary to support program or policy implementation; (5) developing processes and overseeing activities to assure that people are appropriately employed, effectively and efficiently utilized, and dealt with in a fair and equitable manner; and (6) developing activities and procedures to assure that program and policy are being executed, adjusted as necessary, and that the appropriate results are being achieved.

Candidates who meet the mandatory requirements will be further evaluated by the Search Committee on the following factors: communications and interpersonal skills, education; honors and awards; and the degree to which they exceed the minimally qualified level of the mandatory managerial/executive qualifications. Information on any of the above requirements may be obtained by calling Mrs. Helen C. Stafford, Executive Secretary, Search Committee for Director, FIC, at (301) 496-4197.

Applications for Federal Employment, (SF-171) are to be sent to Mrs. Helen C. Stafford, Executive Secretary, Search Committee for Director, FIC, National Institutes of Health, Building 1, Room 22, 9000 Rockville Pike, Bethesda, Maryland 20892. A current curriculum vitae and bibliography must accompany all applications. Applications of women and/or minority group members are especially solicited.

> HEAT NATIONAL INSTITUTES OF HEALTH

TWO POSITIONS: FISH BIOLOGIST AND GENETICIST. Applications are invited for two tenuretrack assistant professor positions to begin 16 August track assistant professor positions to begin 16 August 1988. Ph.D. required; postdoctoral experience desirable. Establishment of a strong, independent research pro-gram and direction of graduate students are required. (i) **FISH BIOLOGIST**: Teaching duties include fish biol-ogy and fisheries management courses, and occasional participation in team-taught introductory biology lectures. The new faculty member will contribute to an active undergraduate Fisheries and Wildlife Biology Pro-gram. (ii) **GENETICIST**: Teaching duties include an undergraduate core course in genetics, an advanced course in area of interest, and occasional participation in team-taught introductory biology lectures. Research em-phasis within genetics is open, but applications from candidates able to strengthen the department in molecular or cellular biology will be especially welcome. For both positions: Please send curriculum vitae, transcripts, representative reprints, and statement of teaching and research interests, and arrange to have three letters of recommendation sent to: Dr. Albert J. Fivizzani, Fish recommendation sent to: Dr. Albert J. Frivzani, Fish Biology Search, OR Dr. John C. La Duke, Genetics Search, Department of Biology, University of North Dakota, Grand Forks, ND 58202–8238. Application receipt deadline: 5 February 1988. The University of North Dakota is an Affirmative Action/ Equal Opportunity Employer.

VETERINARY PATHOLOGISTS

International Research and Development Corporation (IRDC) has an opening for a pathologist. Board-certifi-cation plus experience in toxicologic pathology is de-sired. However, Board-qualified candidates will be con-sidered. Responsibilities include histopathologic evalua-tion of slides and service as a pathology study monitor for ongoing studies. Ability to analyze data and write reports is essential.

Our pathology division is responsible for clinical and anatomic pathology for our extensive program of toxico-logical research for the pharmaccutical, agricultural, chemical, and consumer industries as well as governmental agencie

IRDC is located a few miles from Kalamazoo, Michigan, midway between Chicago and Detroit, an area affording a broad range of urban or rural life styles with excellent cultural and recreational opportunities. We offer excellent benefit programs and a starting salary commensurate with experience. Send your résumé to:

Mr. John Ragen Director of Personnel International Research and Development Corporation 500 North Main Street Mattawan, MI 49071 Equal Opportunity Employer

VIROLOGIST/BIOCHEMIST. Associate-level fac-VIROLOGIST/BIOCHEMIST: Associate-level fac-ulty position available immediately for research on anti-retroviral agents (AIDS). Must have Ph.D. in a relevant area. Salary \$20,000 to 22,000 plus fringe benefits. Apply to: Dr. Raymond F. Schinazi, Department of Pediatrics, Emory University School of Medicine, Atlanta, GA 30303. Deadline 4 January 1987. Equal Opportunity Employer/Affirmative Action.

UNIVERSITÉ LAVAL VIROLOGIST/MICROBIOLOGIST

The Department of Biochemistry invites applications from virologists/microbiologists for a full-time faculty position. The position will be available from July 1988. Applicants must hold a Ph.D. degree and have relevant postdoctoral experience. The candidate is expected to teach (in French) virology and to develop a successful research program in oral microbiology or molecular biology. Equal opportunity will be given to male and female applicants. In accordance with Canadian Immigration requirements, this advertisement is particularly directed to Canadian citizens and permanent residents. Applicants should submit their curriculum vitae, a statement of research interests and arrange to have three letters of recommendation sent to: Dr. Denis Mayrand, Chair-man, Department of Biochemistry, Faculty of Sci-ences and Engineering, Laval University, Québec, Canada, G1K 7P4. Deadline for receipt of applications is 15 January 1988.

POSITIONS OPEN

TOXICOLOGIST/GENETICIST. Tenure-track assistant professorship available August 1988. Require-ments: Ph.D. with strong background in research rele-vant to genetics-molecular mechanisms in toxicology. Preference given to candidates with postdoctoral experience. Duties: develop an active externally funded re-search program, teach graduate courses in area of special-ty, teach the molecular portion of the genetics course for biology majors and supervise M.S. graduate research. Send curriculum vitae, list of graduate courses or tran-scripts, a brief description of research interests and three letters of recommendation by 4 January 1988 to: Dr. Douglas Wartzok, Department of Biological Sciences, Indiana University–Purdue University at Fort Wayne, Fort Wayne, IN 46805–1499. An Affirmative Action/Equal Opportunity Employer.

AWARD

Immunohematology Research Foundation (IRF) pro-poses to establish a 5-year **RESEARCH SCIENTIST AWARD**. The successful applicant must have done Significant research using immunologic cells from pe-ripheral blood. Preference will be given to scientists who have used such techniques in studies of central nervous system in health and disease, especially Alzheimer's dis-ease. Send curriculum vitae to: Immunohematology Research Foundation, P.O. Box 24, San Rafael, CA 94915 Immunohematology Research Foundation is an 94915. Immunohematology Research Foundation is an Equal Opportunity Employer.

TRAINING PROGRAM

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a doctor of optometry (O.D.) degree in two calendar years. Employment opportunities exist in pri-vate practice, industry, education, and research. Contact: Ph.D.-O.D. Program Director, Admissions Office, The New England College of Optometry, Room 14, 424 Beacon Street, Boston, MA 02115.

FELLOWSHIPS

MEDICAL ONCOLOGY—LABORATORY RE-SEARCH FELLOWSHIPS: The Division of Medical SEARCH FELLOWSHIPS: The Division of Medical Oncology at Memorial Sloan-Kettering Cancer Center offers research fellowships leading to a laboratory-based, academic career for physicians interested in medical oncology and basic laboratory research. Applicants may either have completed clinical training and apply solely for laboratory research training, or apply for a 3 to 4 year fellowship including clinical training leading to sub-specialty Board eligibility. A variety of laboratory trainee positions are available in the Sloan-Kettering Institute, in the areas of molecular genetics, cell biology, immunolopositions are available in the Stoan-Kettering Institute, in the areas of molecular genetics, cell biology, immunolo-gy, and pharmacology. Interested M.D.'s and M.D./ Ph.D.'s are encouraged to apply to: George J. Bosl, M.D., Director, Medical Oncology/Hematology Training Program, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. An Equal Opportunity Employer, M/F/H/V.

Harvard University announces BULLARD FEL-LOWSHIPS IN FOREST RESOURCES with stipends available for advanced study and research. Fellowships are open to individuals in academic careers, public service, or private forestry, with stipends up to \$20,000. Further information may be obtained from: The **Com**mittee on the Charles Bullard Fund for Forest Research, Harvard University, Harvard Forest, Peter-sham, MA 01366. Deadline for applications: 1 February 1988.

POSTDOCTORAL FELLOWSHIP IN PERI-NATAL PHYSIOLOGY. Postdoctoral fellowships are NATAL PHYSIOLOGY. Postdoctoral fellowships are available in perinatal biochemistry, physiology and phar-macology research. Studies include cardiovascular alter-ations in pregnancy and the effect of hypertension on fetal growth, control of placental vascular resistance, metabolism and transport of eicosanoids in intrauterine tissues. For further information, please write either Ken-neth E. Clark, Ph.D., or Leslie Myatt, Ph.D., A. E. Seade, Berinatral Research Center Denostments, of Seeds Perinatal Research Center, Departments of Obstetrics and Gynecology and Pediatrics, University of Cincinnati, Cincinnati, OH 45267–0526. Affirmative Action/Equal Opportunity Employer

FELLOWSHIPS

GRADUATE FELLOWSHIPS CENTER FOR THE STUDY OF EVOLUTION AND THE ORIGIN OF LIFE (CSEOL) UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA)

CSEOL invites applications for three 1st-year predoc-toral fellowships for 1988 to 1989. Stipends are each \$9,000 for 9 months, with no teaching or other duties. Fellows are included in a select group of former Fellows and other graduate students invited to interact with Center faculty in a weekly dinner/seminar/discussion series. Applicants should be planning to carry out thesis research under the supervision of a CSEOL faculty member and in a subject area relating to evolution, broadly construed—of the solar system, of Earth, of the environment, of life, of humans. Areas of particular environment, of life, of humans. Areas of particular interest for 1988 to 1989 include (i) the origin of life; (ii) biochemical phylogeny; (iii) Precambrian biotic-environmental evolution; and (iv) the interface between molecular biology and the known fossil record. Faculty are members of the UCLA Departments of Anthropolo-uk Attrospheric Sciences Biology. Chamisgy, Astronomy, Atmospheric Sciences, Biology, Chemis-try and Biochemistry, Computer Science, Earth and Space Sciences, Geography, and Microbiology; the Space Sciences, Geography, and Microbiology; the School of Medicine (Anatomy; Microbiology and Im-munology; Physiology; Biobehavioral Sciences); and the School of Public Health. Fellowship applicants must apply by 15 February 1988, both to an appropriate academic department and to CSEOL. For application forms and a list of CSEOL members, contact:

CSEOL Fellows Committee Geology Building, Room 5687 University of California, Los Angeles Los Angeles, CA 90024 Telephone: 213-825-1170

POSTDOCTORAL FELLOWSHIPS

Postdoctoral research fellowships are available in the Division of Radiobiology, University of Utah School of Medicine to study radiation-induced sarcomas in animal model systems. A broad-based approach is being taken which includes immunobiology, cell biology and onco-gene expression of tumors induced by radiation. Candi-dates should have a Ph.D. degree and a strong background in cell biology, molecular biology, or molecular immunology. The positions are available immediately at a range of \$20,000 to \$22,000 per annum. Submit a range of \$20,000 to \$22,000 per annum. Submit curriculum vitae and names, addresses, and telephone numbers of three references to: **Raymond A. Daynes**, **Ph.D. or Scott C. Miller, Ph.D. at the Division of Radiobiology, Building 351, University of Utah School of Medicine, Salt Lake City, UT 84112.** Applications will be accepted through 15 December 1987. The University of Utah is an Affirmative Action/ Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP available 1 July 1988 in the Division of Research Immunology/ Bone Marrow Transplantation of Research Immunology Bone Marrow Transplantation of the Childrens Hospital of Los Angeles and the University of Southern California School of Medicine. The position involves an evaluation of the role of autoreactive T lymphocytes in autoimmune diseases and graft versus host disease including the heterogeneity of autoreactive T lymphocytes and the heterogeneity of class II histocompatibility antigens. Applicants should have a Ph.D. in immunology or biochemistry with experience with molecular biological techniques. Applicants should send their curricula vitae, the names of three references, and their research interests

Robertson Parkman, M.D. Head, Division of Research Immunology/BMT Childrens Hospital of Los Angeles 4650 Sunset Boulevard Los Angeles, CA 90027

The Childrens Hospital of Los Angeles and U.S.C. School of Medicine are Equal Opportunity Employers.

PRE- AND POSTDOCTORAL TRAINEE-SHIPS available. Must be U.S. citizen or have perma-nent visa. Applicants should write to: Toxicology Program Box 7633

North Carolina State University Raleigh, NC 27695.

North Carolina University is an Affirmative Action University.

SCIENCE, VOL. 238

The life of science from Chicago

Celebrating its 25th anniversary

THE STRUCTURE **OF SCIENTIFIC** REVOLUTIONS

Second Edition, Revised **THOMAS S. KUHN**

"Kuhn has a felicitous way of organizing his arguments and marshalling his facts . . . and there is an air of excitement and revolutionary fervor which infects the readers."—Gerd Buchdahl, the readers."—Ger History of Science Paper \$6.95 222 pages Library cloth edition \$17.50

BLACK-BODY THEORY AND THE QUANTUM **DISCONTINUITY**,

1894-1912 With a new Afterword **THOMAS S. KUHN**

"Every physical scientist should read this book, for it not only explodes a number of widely held beliefs about the origin of the quantum concept, but provides some fascinating insight into the progress of a scientific revolution that affects us all." -Paul Davies, New Scientist Paper \$18.95 396 pages

MEN WHO MADE A NEW PHYSICS Physicists and the

Quantum Theory BARBARA LOVETT CLINE

In a lively style accessible to students and general readers, Cline recounts the development of the quantum theory, capturing the atmosphere of argument and discovery among atomic physicists in the 1920s Paper \$11.95 282 pages 18 halftones

A PRELIMINARY DISCOURSE ON THE STUDY OF NATURAL PHILOSOPHY JOHN F. W. HERSCHEL

With a Foreword by Arthur Fine Originally published in 1830, this book can be called the first modern work in the philosophy of science. Covering an extraordinary range of philosophical, methodological, and scientific subjects, Herschel's thinking in this treatise in turn influenced Charles Darwin. Paper \$14.95 400 pages

PRIMATE SOCIETIES

EDITED BY BARBARA B. SMUTS, DOROTHY L. CHENEY, ROBERT M. SEYFARTH, RICHARD W. WRANGHAM, AND THOMAS T. STRUHSAKER With contributions from forty-six experts, Primate Societies provides a synthesis of the most current information on primates and its theoretical and empirical significance spanning the disciplines of behavioral biology, ecology, anthropology, and psychology. Paper \$27.50 590 pages 106 halftones, 32 line drawings, 112 tables Library cloth edition \$70.00

Announcing a new edition

ANIMALS WITHOUT BACKBONES Third Edition

RALPH BUCHSBAUM, MILDRED BUCHSBAUM, JOHN PEARSE, AND VICKI PEARSE

This new edition has been completely rewritten and redesigned, but retains the same clarity and careful scholarship that have earned this famous introduction to invertebrate biology its con century. It incorporates many new drawings and photographs and has been updated with findings from recent research. Paper \$17.00 584 pages 554 halftones, 266 line drawings Library cloth edition \$25.00

THE DEVELOPMENT **OF BEHAVIORAL** STATES AND THE EXPRESSION **OF EMOTIONS IN EARLY INFANCY**

New Proposals for Investigation PETER H. WOLFF Arguing against prevailing methods of child development research, Wolff applies the ethological methods used in field studies of animal behavior

develop in the natural ecology of their homes Cloth \$32.00 352 pages 11 halftones, 30 line drawings

to observe human infants as they

FROM MINERALOGY TO GEOLOGY

The Foundations of a Science, 1650-1830

RACHEL LAUDAN By examining scientific traditions in continental Europe, before the rise of British geology, Laudan traces the intellectual roots of geology to mineralogy and chemical cosmogony. Cloth \$27.50 288 pages 19 line drawings Science and Its Conceptual Foundations series

SEX AND **SCIENTIFIC INQUIRY** EDITED BY SANDRA HARDING AND

JEAN F. O'BARR Calling into question the objec-

tivity of scientific inquiry, this volume offers an overview of the issues surrounding gender and science. Contributors examine the social structure of science, the misuses and abuses of science and technology, biases in the sciences, the sexual meanings of science, and questions of epistemology and metatheory.

Paper \$10.95 317 pages Library cloth edition \$25.00

BEYOND THE LABORATORY

Scientists as Political Activists in 1930s America PETER J. KUZNICK The debate over scientists' social responsibility has raged for much of the twentieth century and remains a topic of controversy today. Kuznick traces the origin of that debate to the 1930s and places it in a context that forces a reevaluation of the

relationship between science and politics in twentieth century America.

Cloth \$29.95 360 pages

PREHISTORIC LIFE ON THE MISSISSIPPI FLOODPLAIN

Stone Tool Use, Settlement Organization, and Subsistence Practices at the Labras Lake Site, Illinois

RICHARD W. YERKES

Based on some six years of intensive archeological and geological research at Labras Lake in Illinois, this study yields a more accurate and detailed picture than ever before of what pre-historic life on the Mississippi floodplain was like.

Paper \$10.00 304 pages 9 halftones, 65 line drawings Library cloth edition \$25.00 Prehistoric Archeology and Ecology series

POTTERY ANALYSIS

A Sourcebook **PRUDENCE M. RICE**

This up-to-date sourcebook provides a comprehensive overview of pottery analysis, drawing together archaeological, ethnographic, stylistic, functional, and physiochemical approaches

Cloth \$45.00 528 pages 45 halftones, 100 line drawings

LIGHT MICHAEL L. SOBEL

THE UNIVERSITY

"[Sobel] is a popularizer in the best sense, the expert witness clearly and concisely explaining complex concepts. He makes points with conviction and considerable grace, and highlights his straightforward narrative with Some fascinating insights."— James Cornell, *New York Times* Book Review Cloth \$29.95 280 pages 85 halftones, 95 line drawings



OF CHICAGO PRESS 5801 South Ellis Avenue, Chicago, Illinois 60637 Circle No. 186 on Readers' Service Card

The sophisticated LC Gradient Pump with a simple controller



When it comes to routine gradient separations, it pays to focus on the essentials.

Why complicate programming with a variety of options that you'll never use? Why pay extra for a lot of whistles and bells? Why compromise features that really do make a difference in the accuracy and reproducibility of your results?

The new LC Gradient Pump combines all the best flow and mixing features together with self-contained binary or ternary gradient control to ensure quality results. There's no need for additional control components and their added costs.

With the new LC Gradient Pump you get all you really need and more, for a lot less.

Why not simply ask for a demonstration?



The 2249 LC Gradient Pump.



Pharmacia LKB Biotechnology AB, 751 82 Uppsala, Sweden, Tel. 018-16 30 00, Telex 760 70, Telefax 018-14 38 20. LKB products: Box 305, S-16F26 Bromma, Sweden, Tel. 08-799 80 00, Telex 10492, Telefax 08-98 63 64. Australia (02)888 36 22 • Austria (022)69 160 10 • Austria-Eastern European Countries + 43/222)92 160 7 • Belgium (02)242 4660 Canada (0514)684 88 81 • Demark (02)26 52 00 • Finland (021)67 81 11 • France (01)64 46 36 36 • Greece-Middle East + 30(1)894 73 96 Great Britain (0908)66 11 01 • Holland (034)80 77 911 Hong Kong-Far East (852)5-814 84 21 • India (0812)57 37 88 • Italy (02)55 913 21 • Japan (03)444-4811 Norway (02)54 90 95 • People's Republic of China (Beijing) 89 06 21 • Sovjet Union (095)255-6984 • Spain (03)230 05 01 • Sweden (08)799 80 00. Switzerland (01)821 18 16 • United States (0201)457 80 00 • West Germany (0761)490 30. Over 60 qualified representatives throughout the world.

Circle No. 39 on Readers' Service Card