their careful discussions of the limited evidence for kin recognition ability and its mechanism in nonhuman primates and in humans. Although research on kin recognition in primates is still in its infancy, the preliminary evidence is intriguing. Wells, for example, discusses evidence that humans can discriminate among conspecifics by using odors but may be unable to discriminate between twins. Equally fascinating is the evidence that identical twins appear to display greater cooperation and willingness to work for the benefit of each other than fraternal twins.

The final chapter by W. D. Hamilton, "Discriminating nepotism: expectable, common, overlooked," is interesting and thought-provoking. Hamilton argues that we should have long ago suspected that animals can recognize kin but that the investigation of kin recognition was hampered because nepotism has become an embarassment in civilized cultures. (You will have to read the chapter to learn why.) One of the most tantalizing ideas in the chapter is that kin recognition could have evolved in a series of small steps: (i) an animal's odor, perhaps metabolic byproducts, provides it with a chemical signature (expression component); (ii) an animal habituates to the familiar odors (perception component); and (iii) an animal develops behavior that is conditional on the degree of familiarity between the learned and the perceived odor. Such an evolutionary scenario is intriguing because it suggests that the perception and expression components of recognition may have already been present in primitive ancestors and that the evolution of kin recognition ability required only the development of an appropriate behavioral response, the "action component"—in a phrase coined by H. K. Reeve-of recognition.

In sum, Kin Recognition in Animals is a valuable contribution to sociobiology. There is no other single source that contains so great an amount and diversity of information on kin recognition in animals.

> GEORGE J. GAMBOA Department of Biological Sciences, Oakland University, Rochester, MI 48063

Books Received

Another Unique Species. Patterns in Human Evolutionary Ecology. Robert Foley. Longman Scientific, Harlow, U.K., and Wiley, New York, 1987. xxii, 313 pp., illus. Paper, \$32.95.

Antigenic Variation. Molecular and Genetic Mechanisms of Relapsing Disease. Julius M. Cruse and Robert E. Lewis, Jr., Eds. Karger, Basel, 1987. 244 pp., illus. \$130. Contributions to Microbiology and Immunology,

Approaches to Elucidate Mechanisms in Teratogenesis. Frank Welsch. Hemisphere (Harper and Row), New York, 1987. xviii, 285 pp., illus. \$79.95. Chemical Industry Institute of Toxicology Series. Based on a conference, Research Triangle Park, NC, April 1986.

Avian Botulism. An International Perspective. Mel W. Eklund and Vulus R. McDowell, Jr., Eds. Thomas, Springfield, IL, 1987. xxii, 405 pp., illus. \$64.50. American Lecture Series, no. 1068. From a conference.

Basic Biotechnology. John Bu'Lock and Bjorn Kristiansen, Eds. Academic Press, Orlando, FL, 1987. xiv, 561 pp., illus. \$85.50; paper, \$29.95

Beobachtung, Experiment und Theorie in Naturwissenschaft und Medizin. Reimar Lüst et al., Eds. Wissenschaftliche Verlagsgesellschaft, Stuttgart, 1987. 481 pp., illus. Paper, DM 38. From a conference, Munich, F.R.G., Sept. 1986.

The Beta Equilibrium, Stability, and Transport Codes. Applications to the Design of Stellarators. Frances Bauer et al. Academic Press, Orlando, FL, 1987.

rrances Bauer *et al.* Academic Press, Orlando, FL, 1987. xviii, 192 pp., illus. \$29.95. Perspectives in Physics. **Biological Membranes.** A Practical Approach. J. B. C. Findlay and W. H. Evans, Eds. IRL Press, McLean, VA, 1987. xvi, 304 pp. \$49; paper, 31. Practical Ap-

Blomass Conversion Technology. Principles and Practice. M. Moo-Young et al., Eds. Pergamon, Elmsford, NY, 1987. viii, 211 pp., illus. \$58.

Biomechanics of Cell Division. Nuri Akkas, Ed.

Plenum, New York, 1987. viii, 374 pp., illus. \$69.50. NATO Advanced Science Institutes Series A, vol. 132. From a workshop, Istanbul, Turkey, Oct. 1986. Biophysical Aspects. Joel F. Liebman and Arthur Greenberg, Eds. VCH, New York, 1987. xvi, 405 pp., illus. \$77.50. Molecular Structure and Energetics, vol. 4.

Illus, \$77.50. Molecular structure and Energetics, vol. 4.

Biotechnology Methods. C. Bedetti et al. SpringerVerlag, New York, 1987. 182 pp., illus. \$77.50. Advances in Biochemical Engineering/Biotechnology, 35.

Cannabinoids as Therapeutic Agents. Raphael
Mechoulam, Ed. CRC, Boca Raton, FL, 1986. vi, 186
pp., illus. \$95.

Cognitive Processes in Mathematics. John A.
Clabade and Dos Bocars. Eds. Clarandon (Oxford

Sloboda and Don Rogers, Eds. Clarendon (Oxford University Press), New York, 1987, x, 208 pp., illus. \$57.50. Keele Cognition Seminars, 1. Based on a confercompendium of Chemical Terminology. IUPAC

Recommendations. Victor Gold et al., compilers. Black-well Scientific, Palo Alto, CA, 1987. viii, 456 pp., illus. \$69.60; paper, \$48.45.

Compendium of Wheat Disease. M. V. Wiese. 2nd ed. APS Press, St. Paul, MN, 1987. viii, 112 pp., illus. Paper, \$20. Discase Compendium Series.

The Competitive Challenge. Strategies for Industrial Innovation and Renewal. David J. Teece, Ed. Ballinger (Harper and Row), Cambridge, MA, 1987. xii, 256 pp., zational Change. Based on lectures, Berkeley, CA, 1984–1985. illus. \$26.95. Ballinger Series on Innovation and Organi-

A Comprehensive Introduction to Membrane Bio-

chemistry. Dipak B. Datta. Floral, Madison, WI, 1987. xxii, 635 pp., illus. \$89.95; paper, \$39.95.

Computer Assisted Learning in the Humanities and Social Sciences. W. A. Kent with R. Lewis, Eds. Blackwell Scientific, Palo Alto, CA, 1987. x, 213 pp., illus. \$46. Based on a seminar. London April 1986.

illus. \$46. Based on a seminar, London, April 1986.

Continental Extensional Tectonics. M. P. Coward,
J. F. Dewey, and P. L. Hancock, Eds. Published for the Geological Society by Blackwell Scientific, Palo Alto, CA, 1987. xii, 637 pp., illus. \$115. Geological Society Special Publication, vol. 28. From a conference, Dur-

ham, U.K., April 1985.

Dictionary of the Physical Sciences. Terms, Formulas, Data. Cesare Emiliani. Oxford University Press,

New York, 1987. xiv, 365 pp., illus. \$35; paper, \$19.95.

DNA. Protein Interactions and Gene Regulation. E.

Brad Thompson and John Papaconstantinou, Eds. University of Texas Press, Austin, TX, 1987. xii, 292 pp., illus. \$32.50. University of Texas Medical Branch Series in Biomedical Science.

Drawing and Understanding Fossils. A Theoretical and Practical Guide for Beginners, with Self-Assessment. E. W. Nield. Pergamon, Elmsford, NY, 1987. x,

134 pp., illus. \$30; paper, \$16.95.

Dynamics of Proteins and Nucleic Acids. J. Andrew McCammon and Stephen C. Harvey. Cambridge University Press, New York, 1987. xii, 234 pp., illus.

Effective Animal Care and Use Committees. F. Barbara Orlans, Richard C. Simmonds, and W. Jean Dodds, Eds. American Association for Laboratory Animal Science, Cordova, TN, and Scientists Center for Animal Welfare, Bethesda, MD, 1987. 178 pp., illus. **S45. Laboratory Animal Science, Jan. 1987. **Electrochemistry.** Theoretical Foundations. Jerry

Goodisman. Wiley-Interscience, New York, 1987. x, 374 pp., illus. \$55.

The Emergence of Morality in Young Children. Jerome Kagan and Sharon Lamb, Eds. University of Chicago Press, Chicago, IL, 1987. xii, 339 pp. \$24.95.
Based on a conference, Nov. 1984.

Enigmas of Chance. An Autobiography. Mark Kac. University of California Press, Berkeley, CA, 1987. xviii, 163 pp., illus. Paper, \$8.95. Reprint, 1985 ed. Exploring the Universe with the IUE Satellite. Y. Kondo et al., Eds. Reidel, Dordrecht, 1987 (U.S. dis-

tributor, Kluwer, Norwell, MA). x, 787 pp., illus. \$49.50. Astrophysics and Space Science Library, vol.

Fossils, Teeth and Sex. New Perspectives on Human Evolution. Charles E. Oxnard. University of Washington Press, Seattle, WA, 1987. xiv, 281 pp., illus. \$35.

Genetic Engineering. Principles and Methods. Vol. 9. Jane K. Setlow, Ed. Plenum, New York, 1987. viii,

Gift of Life. The Effect of Organ Transplantation on Individual, Family, and Societal Dynamics. Roberta G. Simmons, Susan Klein Marine, and Richard L. Simmons. Transaction, New Brunswick, NJ, 1987. xxvi, 526 pp. Paper, \$19.95.

Harvesting the Air. Windmill Pioneers in Twelfth

Century England. Edward J. Kealey. University of California Press, Berkeley, CA, 1987. xiv, 307 pp., illus. \$40.

The Health Effects of Aromatic Amines. A Review. L. K. Shuker et al. Monitoring and Assessment Research Centre, London, 1986. x, 127 pp., illus. \$30. MARC Report, no. 35.

How We Understand Art. A Cognitive Developmental Account of Aesthetic Experience. Michael J. Parsons. Cambridge University Press, New York, 1987. xiv, 159 pp., illus. \$24.95. Immunology of the Male Reproductive System.

Pierluigi E. Bigazzi, Ed. Dekker, New York, 1987. xviii, 418 pp., illus. \$110. Immunology Series, vol. 36. Innovation and Acceleration in Clinical Drug De-

velopment. Louis Lasagna and Alexander G. Bearn, Eds. Raven, New York, 1987. xii, 170 pp., illus. \$49.50. Medical Advisory Council Series, 1986. Based on a

Medical Advisory Council Series, 1986. Based on a meeting, Siena, Italy, June 1986.

Inorganic Nitrogen Metabolism. W. R. Ullrich et al., Eds. Springer-Verlag, New York, 1987. xiv, 295 pp., illus. \$93.10. From a course, Cáceres, Spain, 1986.

Inquest on the Shroud of Turin. Joe Nickell. 2nd ed. Prometheus, Buffalo, NY, 1987. 186 pp. Paper, ed. 2005.

Knowledge Acquisition for Expert Systems. A Practical Handbook, Alison L. Kidd, Ed. Plenum, New York, 1987. xiv, 194 pp., illus. \$39.50.

Laboratory Animals. An Introduction for New Experimenters. A. A. Tuffery, Ed. Wiley-Interscience, New York, 1987. x, 342 pp., illus. \$44.95

Landscape Heterogeneity and Disturbance. Monica Goigel Turner, Ed. Springer-Verlag, New York, 1987. xii, 239 pp., illus. \$63.50. Ecological Studies, 64.

Based on a symposium.

Laser-Beam Interactions with Materials. Physical Principles and Applications. Martin von Allmen. Springer-Verlag, New York, 1987. x, 232 pp., illus. \$52. Springer Series in Materials Science, vol. 2.

Materials Science in Space. Theory, Experiments, Technology. L. Regel. Halsted (Wiley), New York, 1987. x, 244 pp., illus. \$34.95. Translated from the French edition (Paris, 1985) by J. M. Haynes and H.

Rodot.

Mathematical Topics in Population Biology, Morphogenesis and Neurosciences. E. Teramoto and M. Yamaguiti, Eds. Springer-Verlag, New York, 1987. x, 348 pp., illus. Paper, \$37.40. Lecture Notes in Mathematics, 71. From a symposium, Kyoto, Japan, Nov.

Matrices for Engineers. Allan D. Kraus. Hemisphere (Harper and Row), New York, 1987. xiv, 310

pp., illus. \$49.

Matter, Gravity and Spin. Clarence A. Gall. Vantage, New York, 1987. xii, 99 pp. \$14.95.

Measurement Error Models. Wayne A. Fuller. Wi-

ley, New York, 1987. xxiv, 440 pp. \$44.95. Wiley Series in Probability and Mathematical Statistics.

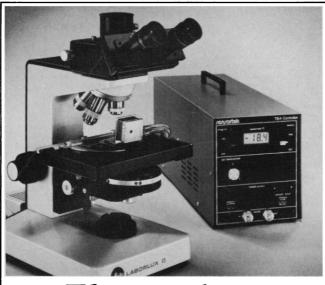
Mechanisms of Cell Injury. Implications for Human Health. B. A. Fowler, Ed. Wiley-Interscience, New York,

1987. xiv, 466 pp., illus. \$100. Life Sciences Research Reports, 37. From a conference, Berlin, Oct. 1985. **The Media Lab.** Inventing the Future at MIT. Stew-art Brand. Viking, New York, 1987. xviii, 285 pp., illus.,

plates. \$20.

Metal Complexes in Fossil Fuels. Geochemistry, Characterization, and Processing. Royston H. Filby and Jan F. Branthaver, Eds. American Chemical Society, Washington, DC, 1987. x, 436 pp., illus. \$89.95. ACS

(Continued on page 1599)



Thermal Microscope Stage

Maintains specimen at any temperature between -20° and +100°C

Fits most standard microscopes Temperature control is automatic

renrortek INC

154 HURON AVENUE, CLIFTON NJ 07013, USA • Tel: 201-779-5577

Circle No. 1 on Readers' Service Card

Technological Prospects and Population Trends

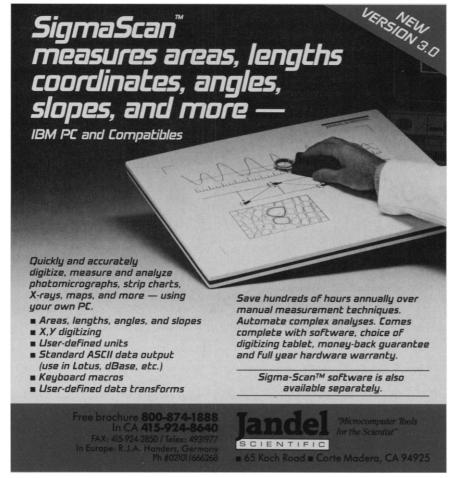
How does population growth affect technology in both the developed and newly developing areas of the world? Conversely, how might future technological changes affect population and related socioeconomic trends? This book, based on a recent AAAS symposium, offers diverse yet integrated perspectives by linking demography with developments in agriculture, education, contraception, longevity, and health care.

The volume is edited by Thomas J. Espenshade, associate director of the Population Studies and Training Center, Brown University; and George J. Stolnitz, director of the Population Institute for Research and Training, Indiana University.

\$17.25 to AAAS members (include membership number from *Science*), \$21.50 to nonmembers.

Order from: Westview Press, Dept. AAAS, 5500 Central Avenue, Boulder, CO 80301. (Please add \$2.50 postage and handling for the first copy, $75\,\mathcal{c}$ for each additional copy, and allow 4–6 weeks for delivery.)

Published by Westview Press for AAAS



Ist Canadian AIDS Research Conference Toronto

January 27-29,1988

The conference will address the latest biotechnology advances which are assisting in our understanding of the biology, epidemiology and clinical aspects of AIDS. Planned sessions on: Molecular Biology; Immunology, Diagnostics, Therapeutics; Vaccines; Epidemiology; and Clinical Studies. Keynote Speaker: Dr Robert Gallo, NIH; Dr J. C. Cherman, Institut Pasteur; and Dr W. Haseltine, Harvard School of Public Health will present plenary papers. Information from: Program Organizer, AIDS Conference Office, 4-1172 Pembina Hwy., Winnipeg, Canada R3T 2A4. Tel:204/474-1565

GET WHAT I NEED Sharpen your professional skills. A quick look at The Scientist gives you what you must know to attract grants, secure the right job, respond to takeovers, understand R&D budgets. Get inside the boardrooms, the labs, the lobbies on Capitol Hill where your future is shaped. Discover how animal-rights activists, tightened security rules, and Japanese industry affect your work. Captured in brilliant color and penetrating charts. It is the only newspaper designed exclusively for scientists and engineers. Accurate. Responsible. Thorough. The Institute for Scientific Informationworld leader in science and technology information-introduces The Scientist. Like its sister publications, Current Contents and Science Citation Index, The Scientist gets right to the point. There's nothing quite like it: Intelligence for some of the smartest people in the world. THE SCIENTIST. 3501 MARKET STREET. PHILADELPHIA, PA 19104 ☐ YES. I want to save \$11. Mail me 24 issues of The Scientist for only \$47.* Institution ☐ Payment enclosed. ☐ Bill me. Charge my credit card. ☐ Visa ☐ MasterCard Card No. Exp. date For fastest service, call TOLL-FREE now: 1-800-345-8112 *Basic US rate: \$58. Canada, Mexico: \$58. Elsewhere: \$79 (air cargo), \$109 (airmail). Watch for your first issue in 6-8 weeks. Guarantee: You may cancel at any time and receive full refund on unmailed issues. SC-1 Circle No. 187 on Readers' Service Card

Fractogel® TSK

The best choice



Fractogel[®] TSK the polymeric chromatography carrier for your valuable bioproducts.

- physically stable for rapid results
- chemically stable for consistent and reproducible separations

Whether your chromatography is on the laboratory or industrial scale, Fractogel® TSK fits the bill

MERCK

Frankfurter Str. 250 6100 Darmstadt 11 Tel. (0 61 51) 72-0 Federal Republic of Germany Circle No. 137 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)

IBM PC/XT/AT, MS-DOS, CP/M 80 ... \$19500

RT-11, TSX-Plus, RSX-11, P/0S \$250°°



ANY \$1500

ANY MANUAL & DEMO

\$2000

322 Prospect Ave., Hartford, CT 06106 (203) 247-8500

Connecticut residents add 71/2 % sales tax

Circle No. 11 on Readers' Service Card

Scientific Computing Market

Software for the Scientist

- Data Aquisition
- Communications
- Statistics
- Manuscript Preparation

Scientific Computing Market 711 Timber Hill Road Deerfield, Il 60015

Call for free Catalog 1-800-648-0755 ext. 34

Circle No. 185 on Readers' Service Card

Products & Materials

Antibody to Fluorescein

Anti-Fluorescein made in rabbits is available. Cells labeled for viewing with a fluorescent microscope can also be labeled for viewing with an electron or light microscope by first attaching the Anti-Fluorescein and then labeling that with an antirabbit immunohistochemical reagent. \$90 for 2 ml. Biomedical Technologies. Circle 648.

Magnetic Drive

The MagnaMixer 120–06 is a 4.76 hp magnetic drive that produces 13.6 newton-meters of torque. The magnet is made from a neodymium-iron-boron alloy. It has no dynamic seals, needs no lubricant, and can be autoclaved at temperatures as high as 121°C. The stainless steel housing has a pressure rating of 41.3 MPa. Water and air cooling allow the magnets to operate at maximum power at temperatures as high as 343°C. PPI Division, Duriron. Circle 653.

DNA Scanner

Gel Scanner can scan more than 4000 base pairs of DNA per hour. It reads electrophoretically generated gel films and produces A-C-G-T sequences, which are then translated into ASCII format. The resulting data are ready for analysis by DNA sequence analysis software. The Gel Scanner operates with MS DOS-based computers. \$35,000. Hitachi America. Circle 656.

Entry-Level Minicomputer

The System/36 5363 is a compact floor-standing multiuser minicomputer system with a preloaded operating system. Its 1 megabyte of main storage is supplemented by 65 or 105 megabytes of integrated disk storage. It comes with a built-in 5.25-inch, 1.2-megabyte disk drive. As many as 28 local displays or printers may be attached; it can also support 100 networked IBM PCs and PS/2s. \$10,995. International Business Machines. Circle 658.

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.

Water-Bath Insulating Balls

Hollow polypropylene balls are available that reduce by 75% heat and evaporative losses from open water baths. The balls also minimize splashing, steam, odors, and fumes. The balls are nonabsorbent, pressur-



ized for rigidity, and unaffected by most chemicals. Flasks can be removed from and added to the bath with little disturbance of the cover. The balls are available in diameters of 2 cm and 4 cm. Techne. Circle 655.

Calibration Kit for Electrophoresis

The HMW-SDS Calibration Kit provides well-characterized protein standards in a ready-to-use lyophilized mixture for protein molecular weight determination by electrophoresis in the presence of sodium dodecyl sulfate. Five protein standards span the molecular size range from 53,000 to 212,000 daltons. When reconstituted, the denatured protein standards may be applied to an electrophoresis gel without heating. The standards contain bromophenol blue for easier sample application and 3% D-mannitol to allow direct application on vertical gels. Pharmacia LKB Biotechnology. Circle 529.

Function-Graphing Software

MathBase software tabulates and graphs with double precision mathematical physics functions in any selected range. Among the functions included are orthogonal polynomials (Jacobi, Gegenbauer, Chebyshev, Legendre, Laguerre, and Hermite), factorial and related functions (gamma, polygamma, beta, Riemann zeta, Bernoulli, Euler, Debye, and Spence), exponential integral and related functions (including cosine and sine integrals and hyperbolic extensions, Fresnel integrals, and parabolic cylinder functions), periodic functions (elliptical periods, nomes, Legendre and Jacobian functions, Neville's

theta functions, and Mathieu functions), and Bessel functions (including Airy and Kelvin functions and Kummer's confluent hypergeometric function). MathBase operates on the Commodore Amiga and the IBM PC family of computers. \$100 (U.S.). R. Delbourgo (Australia). Circle 532.

Statistical Expert System

ESS is a statistical program written in C and PROLOG. It combines statistical routines with knowledge of their rules and assumptions; it is designed for users whose statistical knowledge or programming abilities are too limited to effectively use current statistical programs. Data may be input in several different formats, including text files. The data are screened for outliers and tested for both monovariate and multivariate normality. Then, by means of encoded strategies, statistical analyses are chosen and performed. Two-dimensional and three-dimensional color graphic displays are mouse driven. Regression, chemometric, and analysis of variance procedures are included in the program. ESS operates on VAX and UNIX computers and workstations. New Methods Research. Circle 533.

Literature

Pasteurized Transferrins is a 4-page technical brochure about characteristics, biochemistry, biological functions, pasteurization, and iron uptake of pasteurized transferrins. Miles. Circle 538.

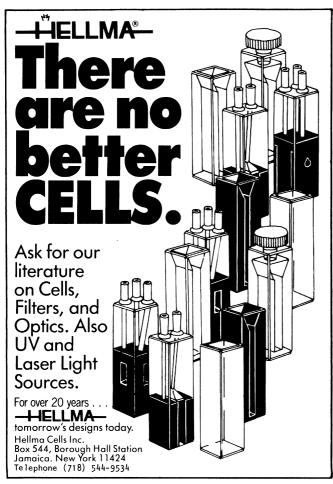
One-Stop 1988 is a 500-page catalog describing 4000 meters, recorders, thermometers, vacuum pumps, anemometers, monitors, analyzers, and other instruments. TRANSCAT. Circle 586.

Electrostatic Plotting is a color brochure discussing monochrome and color electrostatic plotters with widths of 22 to 44 inches. Versatec. Circle 663.

Peristaltic Pumping describes single-channel pumps, multichannel pumps, tube pumps, and tubing. It also provides charts of tube life expectancies and a table showing compatibility between process fluids and tubing. Watson-Marlow. Circle 664.

1987–1988 Microfiltration Products Catalog features polycarbonate screen membranes, pure silver membranes, and related products. Poretics. Circle 665.

Health Physics is a catalog of survey meters, radiation monitors, instrument calibrators, air samplers, radiation protection devices, remote handling tools, warning signs, decontamination kits, and planchets. Nuclear Associates. Circle 666.



Circle No. 138 on Readers' Service Card

International Symposium on Immunotoxins June 9-11, 1988 Sheraton University Center Durham, NC

Session 1 Toxin Structure/FunctionJohn Collier, Jon Robertus, Sjur Olsnes

Session 2 Toxin Selection/Modification Richard Youle, Ira Pastan

Session 3 Ligands – MABS/Alternate Michael Bjorn, Vic Raso

Session 4 Enhancers

Ellen Vitetta, Pierre Casellas

Session 5 Cell Biology

Victor Goldmacher, David Neville, Jr.

Session 6 In Vivo Studies
John Lambert, C. Scott, Philip Thorpe

Session 7 Clinical Trials

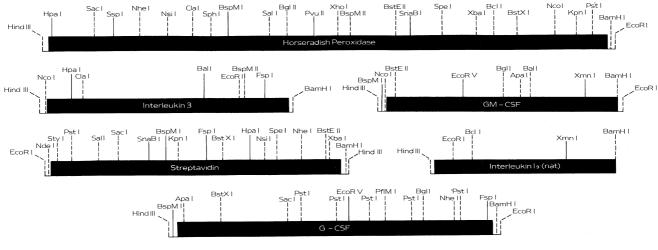
Eric Groves, Dan Vallera, Guy Laurent, Lynn Spitler

Abstracts are being accepted for 10-minute talks during each session. Abstract should be typewritten on white paper not exceeding 8-1/2×11 including heading, authors, institute and address. Deadline for submission of abstract is March 1, 1988.

General Information (registration form, abstract,...)

Rosemary Bornes c/o Dr. Arthur Frankel Duke University Medical Center Box 3898 Durham, NC 27710 (919) 684-5621

6 NEW WAYS TO EXPRESS YOURSELF



Genes also available:

Interleukin 1¢ Interleukin 1¢ Interleukin 2

 $TNF\alpha$

TNFB

Interferon Y
Epidermal Growth Factor
Insulin-like Growth

Factor 2

Genes available soon:

Interleukin 4 Interleukin 5 TNFβ(nat) Interleukin1β(nat)

Interferon β₂ M-CSF TNFα(nat)

BBL's range of genes is constantly expanding. Please contact us for further details of our new products and custom synthesis service.

British Bio-technology Limited

British Bio-technology Ltd., Brook House, Watlington Road, Cowley, Oxford OX4 5LY. Telephone (0865) 718817. Fax (0865) 717598. Telex 838083 BIOTEC G.

(Continued from page 1593)

Symposium Series, 344. Based on a symposium, New York, April 1986.

Methods for the Diagnosis of Bacterial Diseases of Plants. R. A. Lelliot and D. E. Stead. Published for the British Society for Plant Pathology by Blackwell Scientific, Palo Alto, CA, 1987. viii, 216 pp., illus. Paper, \$26. Methods in Plant Pathology, vol. 2. Methods of Hybridoma Formation. Arie H. Bartal

and Yashar Hirshaut. Humana, Clifton, NJ, 1987. xxvi, 480 pp., illus. \$69.50. Contemporary Biomedicine.

Mild Hypertension. Is There Pressure to Treat? W. E.

Miall and Gillian Greenberg for the Medical Research

Mail and Gillian Greenberg for the Medical Research
Council's Working Party on Mild to Moderate Hypertension. Cambridge University Press, New York, 1987.
xviii, 222 pp., illus. \$39.50.

The Molecular Basis of Viral Replication. R. Perez
Bercoff, Ed. Plenum, New York, 1987. xxiv, 579 pp.,
illus. \$97.50. NATO Advanced Study Institute Series A. vol. 136. From a school, Maratea, Italy, Aug.-Sept.

Molecular Evolution of Life. Herrick Baltscheffsky, Hans Jörnvall, and Rudolf Rigler, Eds. Published for the Royal Swedish Academy of Sciences by Cambridge University Press, New York, 1987. 375 pp., illus. \$69.50. Chemica Scripta, vol. 26B (1986). From a conference, Lidingo, Sweden, Sept. 1985.

ference, Lidingö, Sweden, Sept. 1985.

Nonlinear Parabolic Equations. Qualitative Properties of Solutions. L. Boccardo and A. Tesci, Eds. Longman Scientific, Harlow, U.K., and Wiley, New York, 1987. viii, 232 pp., illus. Paper, \$49.95. Pitman Research Notes in Mathematics, 149. From a conference, Rome, Italy, April 1985.

Non-Oxide Technical and Engineering Ceramics. Stuart Hampshire, Ed. Elsevier Applied Science, New York, 1986. xiv, 458 pp., illus. \$95.75. From a conference, Limerick, Ireland, July 1985.

Nutrition of Humans and Selected Animal Species. Milton L. Scott. Wiley-Interscience, New York, 1986. vi, 537 pp., illus. \$69.96. Intended for students and readers lacking a scientific background.

Ordered Media in Chemical Separations. Willie L. Hinze and Daniel W. Armstrong, Eds. American Chemi-

Hinze and Daniel W. Armstrong, Eds. American Chemical Society, Washington, DC, 1987. x, 293 pp., illus. \$54.95. ACS Symposium Series, 342. Based on a symposium

sium, New York, April 1986.

Pathogenicity and Clinical Signficance of Coagulase-Negative Staphylococci. Gerhard Pulver, Paul G. Quie, and Georg Peters, Eds. Fischer, New York, 1987 (distributor, VCH, Deerfield Beach, FL). xii, 290 pp., illus. \$95. Zentralblatt für Bakteriologie, Mikrobiologie und Hygiene, supplement 16. From a symposium, Heppenheim, F.R.G., June 1986.

Phosphate Metabolism and Cellular Regulation in Microorganisms. Annamaria Torriani-Gorini et al., Eds. American Society for Microbiology, Washington, DC, 1987. xii, 316 pp., illus. \$49; to ASM members, \$39. From a symposium, Concarneau, France, 1986.

The Physics of Phase Space. Nonlinear Dynamics

and Chaos, Geometric Quantization, and Wigner Function. Y. S. Kim and W. Zachary, Eds. Springer-Verlag, New York, 1987. x, 449 pp., illus. \$45.70. Lecture Notes in Physics, 278. From a conference, College Park, MD, May 1986.

Psychiatry and the Cinema. Krin Gabbard and

Glen O. Gabbard. University of Chicago Press, Chicago, IL, 1987. xx, 304 pp., illus. \$24.95. An examination of psychiatrists as represented in films. Psychological Evaluation of the Developmentally and Physically Disabled. Vincent B. Van Hasselt and Michel Hersen, Eds. Plenum, New York, 1987. xiv, 324.

334 pp. \$45.

Quantitative Ecological Theory. An Introduction to Basic Models. Michael R. Rose. Johns Hopkins University Press, Baltimore, MD, 1987. viii, 203 pp.,

Selected Readings in Mineral Economics. F. Anderson, Ed. Pergamon, Elmsford, NY, 1987. x, 399 pp., illus. \$45. Sponsored by the Canadian Institute of Mining and Metallurgy.

The Soviet Perspective on the Strategic Defense The Soviet Perspective on the Strategic Defense Initiative. Dimitry Mikheyev. Pergamon-Brassey's, McLean, VA, 1987 (distributor, Pergamon, Elmsford, NY). xii, 95 pp. Paper, \$9.95. Institute for Foreign Policy Analysis Foreign Policy Report.

Studies of Organic Molecules. Joel F. Liebman and Arthur Greenberg, Eds. VCH, New York, 1986. xiv, 385 pp., illus. \$77.50. Molecular Structure and Energetics, vol. 3.

World Gold Deposits. A Geological Classification. J. J. Bache. Elsevier, New York, 1987. xx, 178 pp., illus. \$45. Translated from the French edition (1982) by J. Wanklyn.

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 understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference.

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 commission 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:

o 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 characters 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 resulting 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 Broadway 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 experience 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 programming. Box 184, SCIENCE.

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

M.S. in Biology. Experience in plant and human tissue culture, genetic toxicology, immunohistochemistry and molecular biology, wide variety of analytical techniques. Language skills. Prefer San Diego area. Monika Clausen, Hochheider Weg 29, 29 Oldenburg, F.R.G.

Physiologist, M.D. Research experience in nephrophysiology (hemodynamics, endocrinology). Clinical experience in general internal medicine. Teaching experience in medical physiology. Box 188, SCIENCE

POSITIONS OPEN

ANALYTICAL CHEMIST PHARMACEUTICAL ANALYSIS MANAGER

Boehringer Ingelheim Animal Health, Inc., a leading researcher, producer and supplier of animal health products, currently has an opening for a Manager in the Analytical R&D Section of the Pharmaceutical Development Department. The qualified applicant will possess a Ph.D. in analytical chemistry or equivalent technical training and experience. A minimum of 3 years of bench level experience, and 1 year of managerial experience is required. Excellent compensation package offered. Salary commensurate with education and experience. Please send confidential résumé with requirements to:

Director of Human Resources Boehringer Ingelheim Animal Health, Inc. P.O. Box 999 St. Joseph, MO 64502 Equal Opportunity Employer.

ASSISTANT PROFESSOR—The Biology Department invites applications for a tenure-track position in plant ecology effective 1 July 1988. Teaching responsibilities include quantitative ecology, botany, participation in the department's core curriculum and involvement in the Colleges' general curriculum. Expertise in biostatistics and computer science is very desirable. An on-going research program that is amenable to majors is essential. Applicants must have the Ph.D. degree conferred by the starting date. Applications containing curriculum vitae, statements of teaching and scholarship goals and three letters of recommendation should be sent by 15 January 1988 to: Dr. Valerie M. Kish, Biology Department, Hobart and William Smith Colleges, Geneva, NY

An Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR NORTHEASTERN UNIVERSITY

The Department of Biology at Northeastern University invites applications and nominations for an anticipated ty invites applications and nonlimitations for an anticipated tenure-track position at the assistant professor level. The department is seeking strong candidates with interests in virology, immunobiology, the molecular biology of eukaryotes, eukarotic cell biology, or areas of genetics. Candidates must have an earned doctorate and postdoctoral toral experience, and must demonstrate a high potential for success in research and teaching. Each applicant should send curriculum vitae, and a brief statement of research plans, and arrange to have at least three letters of reference sent to: Search Committee, Department of Biology, Northeastern University, 360 Huntington Avenue, Boston, MA 02115. Northeastern is an Equal Opportunity/Affirmative Action, Title IX University.

ASSISTANT PROFESSOR—BIOCHEMISTRY. Tenure-track position available August 1988. The Department offers the B.S. degree in biochemistry, the B.S. and M.S. degrees in chemistry, and has a joint Ph.D. degree program in biomedical sciences with Eastern Virginia Medical School. A candidate should have an earned doctorate in biochemistry or clinical chemistry with providence of the program of the program of the providence of the with postdoctoral experience preferred. Responsibilities will include teaching undergraduate and graduate courses and initiating a vigorous research program. All areas of biochemistry will be considered. Salary commensurate with qualifications and experience. Send curriculum vitae, a brief statement of research interests, and three letters of recommendation by 1 February 1988 to: Dr. R. L. Williams, Department of Chemical Sciences, Old Dominion University, Norfolk, VA 23508. An Affirmative Action/Equal Opportunity Employer

ASSISTANT PROFESSOR OF BIOLOGY, tenure-track. Ph.D. in a biological science with emphasis in plant genetics required. Preference given to geneticists with broad general background and strong commitment to teaching with emphasis on student writing and problem-solving skills. Duties: teaching courses in genetics, the Agricultural Biology program, molecular biology and general biology; scholarly activity; college services. Send curriculum vitae, transcripts, and three letters of reference to: Dr. Charles J. Bicak, Department of Biology, California State College, Bakersfield, CA 93311. Application deadline: 1 February 1988. CSB is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR. Tenure-track 12month position for Ph.D. in human and/or basic science nutrition. Teaching and postdoctoral research experience desirable. Teach graduate courses in interdepartmental M.S. and Ph.D. nutrition program and develop a research program, including attracting extramural funds. Available 1 August 1988. Deadline 15 March, or until position is filled. Submit curriculum vitae and three Division of Nutrition, Emory University School of Medicine, 69 Butler Street, S.E., Atlanta, GA 30303; telephone: 404-589-3363. Equal Opportunity/Affirmative Action Employer.

The Department of Biological Sciences invites applications for a full-time tenure-track appointment at the ASSISTANT PROFESSOR (ANIMAL VIROLO-GIST) level. Applicants must have a Ph.D. degree and at GIST) level. Applicants must have a Ph.D. degree and at least 2 years of postdoctoral experience. Preference will be given to applicants who have demonstrated research competence in applying molecular approaches to the study of animal virology. Applicants must be capable of teaching general virology at the graduate level. They will be expected to establish an independent research program that must integrate well with existing research groups. Salary is compensurate with experience. Curriegroups. Salary is commensurate with experience. Curricgroups. Satary is commensurate with experience. Curriculum vitae and a list of references (name, address, telephone) should be sent to: Dr. Larry P. Jones, Department of Biological Sciences, University of Texas at El Paso, El Paso, TX 79968-0519, by 1 March 1988. Date of appointment is 1 September 1988. Minorities and women are encouraged to apply. The University is an Equal Employment Opportunity/Affirmative Action Émployer

ASSISTANT PROFESSOR-The Department of Molecular Pathology at the M.D. Anderson Hospital and Tumor Institute is seeking to fill a tenure-track position for a molecular biologist/biochemist with research interests in cellular oncogenes/hemopoietic growth factors. An M.D. and/or Ph.D. and postdoctoral experience are required. Interested candidates should send their curriculum vitae, a brief description of future research interests. and the names of three references to: Ralph B. Arling-haus, Ph.D., Chairman, Department of Molecular Pathology (Box 85), University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute, 1515 Holcombe Boulevard, Houston, TX 77030. An Affirmative Action/Equal Opportunity Employer. Deadline for application materials is 15 January 1988.

ASSISTANT PROFESSOR IN MICROBIOLO-GY: The Department of Biological Sciences invites applications for an anticipated tenure-track position. Applicants must have training in molecular biology and postdoctoral experience. The successful candidate will advise M.S. and Ph.D. level students and develop an extramurally funded research program in microbial physiology. Outstanding candidates in other areas of microbiology are also encouraged to apply. Submit résumé, reprints, statement of research interests and three letters of reference by 1 February 1988, to: Chair, Microbiology Search Committee, Department of Biological Science, Bowling Green State University, Bowling Green, OH 43403. Affirmative Action/Equal Opportunity Employer.

BIOCHEMISTRY UNIVERSITY OF BRITISH COLUMBIA DEPARTMENT OF BIOCHEMISTRY

Applications are invited for a tenure-track position at the level of ASSISTANT PROFESSOR to begin July 1988 or at a suitable subsequent date. The position is have a commitment to teaching and the ability to maintain a vigorous and creative research program. Applicants must have a Ph.D. or M.D. degree and at least 2 years of postdoctoral experience.

Send curriculum vitae, list of publications, reprints of representative papers, a brief description of future research interests, and the names of three referees to: **Dr**. Philip D. Bragg, Department of Biochemistry, Faculty of Medicine, University of British Columbia, 2146 Health Sciences Mall, Vancouver, B.C., Canada V6T 1W5. Deadline for receipt of applications: 31 January

In accordance with Canadian Immigration requirements priority will be given to Canadian citizens and permanent residents of Canada.

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY: Tenure-track; position to start fall semester 1988. Expertise and primary teaching responsibility in comparative vertebrate anatomy. Additional teaching responsibilities will include participation in introductory biology and/or course in specialty. A Ph.D. is required and postdoctoral experience is desirable. Candidates are expected to devel-op a research program with the potential for extramural support, participate actively in departmental affairs, and exhibit a personal concern for students. Applicants should send official transcripts of undergraduate and graduate work, curriculum vitae, a brief statement of research and teaching goals, and at least three letters of recommendation. To ensure consideration of your application it should be received by 8 February 1988. The search will continue until the position is filled. Materials should be submitted to: Dr. Joseph A. J. Orkwiszewski, Chair, Department of Biology, Villanova University, Villanova, PA 19085. Villanova University is an Affirmative Action/Equal Educational Opportunity Institution. Women and minorities are especially encouraged to apply.

ASSISTANT PROFESSOR (SENIOR RE-SEARCHER): The successful applicant will initially be responsible for analyzing, interpreting and modeling measurements obtained during recent upper ocean experiments. This is a 2-year fixed-term appointment (possible renewal for a third year). Qualifications: Ph.D. in physical oceanography, physics or engineering; 1 to 3 years of postdoctoral experience; demonstrated research capability; strong background in fluid dynamics; interest in upper ocean dynamics. Salary: \$26,000 to \$34,000, depending on qualifications. Résumé with names, addresses, telephone numbers of three references must be received by 28 February 1988. Send to Douglas R. Caldwell, Dean, College of Oceanography, CODE - 005, Oregon State University, Corvallis, OR 97331. Oregon State University, an Affirmative Action/Equal Opportunity Employer, complies with section 504, Rehabilitation Act of 1973. Oregon State University has a policy of being responsive to the needs of dual-career couples.

ASSISTANT PROFESSOR POSITIONS DUKE UNIVERSITY MEDICAL CENTER SECTION OF CELL GROWTH, REGULATION, AND ONCOGENESIS DUKE COMPREHENSIVE CANCER CENTER

Duke University Comprehensive Cancer Center invites applications for tenure-track positions in a newly created Section of Cell Growth, Regulation, and Oncogenesis at the level of assistant professor. Investigators working in any area of cancer biology are encouraged to apply, but special consideration will be given to those working in the areas of growth and differentiation factors, signal transduction, gene regulation, oncogenes, molecular aspects of transformation and drug resistance. Applicants with postdoctoral experience should have demonstrated high potential for imaginative, substantial independent research. Successful candidates will also be appointed into a basic science department within the Medical Center.

Applicant should send curriculum vitae, a brief de scription of present and proposed research, and the names of several references to: Dr. Robert M. Bell, Chairman, Search Committee, Section of Cell Growth, Regulation and Oncogenesis, Duke Comprehensive Cancer Center, Box 3814, Durham, NC 27710.

To be assured of full consideration, applications should be received by 28 February 1988.

Duke University is an Equal Opportunity/Affirmative

Action Employer.

ASSISTANT PROFESSORS. Applications are invited from outstanding candidates for tenure-track positions with training in cell physiology or regulatory biology. We are particularly interested in individuals who plan to develop an independent research program involving neurobiology, angiogenesis or growth factors, but outstanding candidates in other fields will definitely be considered. Applicants should submit curriculum vitae, description of future research program, and have three letters of reference sent to: Dr. James T. Stull, Chairman, Department of Physiology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235–9040 (formerly The University of Texas Health Science Center at Dallas). An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR, MEDICAL ON-COLOGY—University of Colorado—Tenure-track in Medicine. Candidate expected to establish independently Medicine. Candidate expected to establish independently funded basic research in cancer biology. Completion of Medical Oncology Boards, U.S. medical license, 2 years of postdoctoral basic research required. Start-up funds available. Salary \$40,000 to \$60,000. Send curriculum vitae and three reference letters to: Dr. L. Michael Glode, University of Colorado Health Sciences Center, 4200 East 9th Avenue, Denver, CO 80262; telephone: 303-270-8801. An Equal Opportunity Employer

ASSISTANT PROFESSOR, PHYSIOLOGY

Available fall 1988. Ph.D. required. Teach general physiology, mammalian physiology, and/or cell physiology; direct graduate students; maintain active research program; demonstrate ability to secure extramural fund-Curriculum vitae, statement of research goals, and three letters of recommendation must be received by 15 February 1988. Send to: Dr. Gary W. Childers, Search Committee Chairman, Department of Biological Sciences, Box 814, Southeastern Louisiana University, Hammond, LA 70402. An Equal Opportunity Employer.

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 advanced 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 development 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 55105. All materials must be received by 15 January 1988. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSORS—MOLECULAR BIOLOGY. Two tenure-track positions (requiring research and teaching) are available in an expanding department for fall 1988. Research areas of special interest are: molecular biology of gene expression concerned with plant or microbial systems, virology, or immunology, or protein engineering. Submit inquiries, curriculum vitae, statement of interests and three letters of reference preferably by 15 January 1988 to: **Dr. Wayne E. Magee**, Head, Department of Bioscience and Biotechnology, 118 Stratton Hall, Drexel University, Philadelphia, PA 19104. Drexel University is an Affirmative Action/ Equal Opportunity Employer and especially welcomes applications from women and minorities.

ASSISTANT/ASSOCIATE PROFESSOR OF BIOCHEMISTRY UNIVERSITY OF ILLINOIS AT CHICAGO COLLEGE OF MEDICINE

The Department of Biological Chemistry is seeking applications for a tenure-track assistant/associate professor position effective academic year 1988 or later in the of molecular biology of eukaryotic gene expression. The Department is strong in this area and is committed to further expansion. We are seeking candidates with a to further expansion, we are seeking candidates with a strong commitment to developing an independent research program and teaching in a large medical school environment. Applicants should provide curriculum vitae, at least three letters of reference and a statement of research interests and plans by 1 March 1988. Send applications to: Dr. Robert Storti, Department of Biological Chemistry, University of Illinois at Chicago, College of Medicine, 1853 West Polk Street, Chicago, IL 60612.

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

ASSISTANT/ASSOCIATE PROFESSOR PROTEIN BIOPHYSICAL CHEMIST

The Department of Pharmaceutical Chemistry (Pharmaceutics) at The University of Kansas invites applications for a tenure-track position starting in August 1988. Applicants should be experiment-oriented chemists or biochemists who can apply modern physicochemical techniques to study proteins especially of pharmaceutical interest.

Applicants are expected to possess a Ph.D. degree in pharmaceutics, biochemistry, chemistry, or a related area. Preference will be given to applicants with educational background or research experience in the pharmaceutical sciences. Applicants should have a demonstrated ability to communicate effectively, an interest in teaching, and have shown exceptional research capability/potential. The faculty member will have teaching responsibilities at the undergraduate and graduate levels and will be expected to develop a strong independent research program. Applications should include curriculum vitae, letters

Applications should include curriculum vitae, letters from three references, and a short statement of future research interests. Send applications by 4 January 1988 to:

Dr. Ronald T. Borchardt Department of Pharmaceutical Chemistry 3006 Malott Hall The University of Kansas Lawrence, KS 66045

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

MEDICAL COLLEGE OF GEORGIA

The Department of Physiology and Endocrinology invites applications for a tenure-track position at the ASSOCIATE PROFESSOR level. Applicants should have the capability of teaching and coordinating an introductory interdepartmental neuroscience medical course, developing graduate level courses, and a strong research program. Potential for interaction with a program focus on cellular aspects of cardiovascular and muscle physiology is desirable. Salary will be commensurate with experience. Submit curriculum vitae, five recent papers, and the names of three references to: Dr. Keith Green, Chairman, Physiology and Endocrinology Faculty Search Committee, Department of Ophthalmology, MCG Box 3059, Medical College of Georgia, Augusta, GA 30912. Equal Opportunity/Affirmative Action Employer.

ASSOCIATE VICE PRESIDENT FOR RESEARCH AND DEAN OF THE GRADUATE SCHOOL

The University of Nevada–Reno (UNR) invites nominations and applications for the position Associate Vice President for Research and Dean of the Graduate School.

Primary responsibilities include: development of UNR's research capabilities, especially in the acquisition of external grants and contracts; development of research support services; and administration of research programs and the Graduate School.

Qualifications include: an earned doctorate; tenurable

Qualifications include: an earned doctorate; tenurable as a professor in a university department; possess a distinguished personal record in academic research and graduate education; interpersonal skills; and a demonstrable and academic research and serious descriptions.

graduate education; interpersonal skilis; and a demonstrable knowledge of external funding agencies.

Salary is negotiable commensurate with qualifications and experience. Deadline for receipt of applications is 15 January 1988 or until the position is filled. To apply please send a letter of interest, curriculum vitae, and names, addresses and telephone numbers of five references to: Dean Jon Epps, Chair, Associate Vice President and Graduate Dean Search Committee, Office of Academic Affairs, University of Nevada–Reno, Reno, NV 89557. Telephone: 702-7845-1740. An Equal Employment Opportunity/Affirmative Action Institution. UNR employs only U.S. citizens and aliens lawfully authorized to work in the U.S.

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



CELL BIOLOGIST/ PHARMACOLOGIST

Nova Pharmaceutical Corporation, a leading research and development company in Baltimore, MD, is inviting applications for a scientist with expertise in growth factors and cytokines to participate in a unique drug discovery progam. The successful candidate should possess a PhD and 0-4 years of postdoctoral experience. Individuals with training in pharmacology, biochemistry, molecular biology, immunology or cell biology are encouraged to apply. Those applicants, however, with a demonstrated understanding of ligand-receptor binding and cell culture are preferred. The position will require supervision of a small group of technical associates, plus excellent written and oral communications skills

Nova Pharmaceutical Corporation offers an excellent compensation and benefits package as well as a challenging work environment. Interested individuals should forward their resume, along with a cover letter detailing specific interests and three references to:

L. Faris, Nova Pharmaceutical Corporation, 6200 Freeport Centre #CB/P-PK, Baltimore, MD 21224.

T CELL SCIENCES, INC., an emerging health care company engaged in the development and marketing of therapeutic and diagnostic products, invites applications for the following position:

Immunologist

Ph.D. or M.D. with expertise in cytokine research, monoclonal antibody production and cell mediated immunity preferred. Experience in industry and supervision highly desirable.

Positions at T Cell Sciences include a career enhancing environment and offer the opportunity to interface with internationally recognized scientists in converting their discoveries into products.

We're an equal opportunity employer, offering comprehensive medical/dental plans and competitive salaries. Please send your resume to: Paula R. Freeman, T Cell Sciences, Inc., 840 Memorial Drive, Cambridge, MA 02139.



VISITING RESEARCH SCIENTISTS

Protein Crystallography and Computation

Several PhD level Visiting Research Scientist positions are available within the Protein Crystallography group of Du Pont's Central Research and Development Department. Successful candidates will have research experience in protein x-ray crystallography and/or molecular dynamics simulations. State-of-the-art facilities are available for protein purification, automated crystallization, data collection, computation and interactive graphics. These one-to-two year temporary positions require proficiency in protein isolation, crystallization and structure determination, or experience with modern computational and graphic techniques for studying protein structure.

At the world renowned Du Pont company you'll find a stimulating scientific environment in a modern research facility located near Wilmington, DE. Du Pont provides competitive compensation and relocation benefits. Our Mid-Atlantic location offers a wide range of academic, cultural and recreational activities. Interested candidates should send their resumes and references to Dr. F. Ray Salemme, c/o Employee Relations Department, Room X50958, Wilmington, DE 19898.



U.S. Citizenship or Permanent Visa Required An Equal Opportunity Employer M/F/H/V

ASSISTANT OR ASSOCIATE PROFESSOR OF BIOLOGY

Tenure-track position, September 1988; doctorate and teaching experience required; undergraduate teaching in embryology, histology, and invertebrate zoology. Salary is competitive and may be enhanced by as much as 50% through a Bingham Award for Excellence in Teaching. Submit curriculum vitae and three letters of reference to: Dr. J. Hill Hamon, Program in Biology, Transylvania University, Lexington, KY 40508. Transylvania is an Equal Opportunity Employer.

BEHAVIORAL NEUROSCIENTIST—The Department of Psychology, Duke University invites applications for a visiting assistant professor (nontenure track) for a period of up to 4 years. We seek an individual working at the interface of brain and behavior. Specific approaches and methodologies are not as important as the potential for research productivity; however, a developmental perspective would integrate well with existing research programs in the Department. Teaching at both the graduate and undergraduate levels is expected. Applicants with postdoctoral experience are preferred. Send curriculum vitae, reprints, statement of research plans and three letters of reference to: Behavioral Neuroscience Search, Department of Psychology, Duke University, Durham, NC 27706, by 1 February 1988. Duke University is an Affirmative Action/Equal Opportunity Employer.

BIOANALYTICAL FACULTY POSITION. The School of Chemistry, Georgia Institute of Technology, invites applications for a tenure-track faculty position in bioanalytical chemistry starting 1 September 1988. The position will be at the level of assistant professor, and will form part of a continuing expansion in the areas of analytical chemistry and biochemistry. Candidates from all developing areas at the interface between analytical and biochemistry are invited to apply, especially those with interests in analytical aspects of pharmacology, immunochemistry, enzymology, clinical chemistry, biochemical spectroscopy, and membrane receptors. Candidates will be expected to establish a dynamic research program. Closing date for applications is 15 January 1988, but early application is encouraged. Candidates should apply to: Professor R. A. Pierotti, Director, School of Chemistry, Georgia Institute of Technology, Atlanta, GA 30332–0400, enclosing curriculum vitae, Xerox copies of undergraduate and graduate transcripts, and an outline of research plans. Candidates should also arrange for three letters of recommendation to be sent. Georgia Tech is an Equal Opportunity/Affirmative Action Employer.

BIOMEDICAL NMR POSTDOCTORAL POSITION available immediately. The University of Kentucky Magnetic Resonance Imaging and Spectroscopy Center is seeking a Ph.D. with experience in in vivo NMR spectroscopy and/or magnetic resonance imaging. Training in areas such as biochemistry, physiology or pharmacology is desirable. The successful candidate will participate in a variety of experiments being performed on our 4.7T 33-cm multinuclear imaging/spectroscopy system and high field NMR spectrometers. A letter of intent, curriculum vitae, and three letters of recommendation should be sent to: Dr. Stanford L. Smith, MRISC, 101 Slone Building, University of Kentucky, Lexington, KY 40506–0053 by 1 January 1988. The University of Kentucky is an Equal Opportunity Employer.

CELL BIOLOGIST

The Department of Biology at St. Olaf College is seeking a cell biologist for a tenure-track position at the assistant professor level to begin late August 1988. Teaching responsibilities will include an upper-level course in cell biology with a laboratory and an introductory course in cell biology and genetics. Applicants in any area of cell biology or cell physiology will be considered. The successful candidate will be expected to develop an active research program in cell biology or physiology involving undergraduate students.

involving undergraduate students.
St. Olaf is a coeducational liberal arts college of the Evangelical Lutheran Church of America. Qualified applicants should submit curriculum vitae, transcripts, a description of research and teaching interests and goals, and three letters of reference by 30 January 1988 to: Dr. Ted R. Johnson, Chair, Biology Department, St. Olaf College, Northfield, MN 55057. St. Olaf College is an Equal Opportunity Employer.

POSITIONS OPEN

The Department of Biology at the University of San Diego (USD) is seeking a **BOTANIST** to fill a tenure-track position at the assistant or associate professor level beginning 1 September 1988. We are seeking a candidate with a broad background in the anatomy, physiology, and ecology of vascular plants. Teaching responsibilities include participation in introductory biology and development of an upper division course in botany.

opment of an upper division course in botany.

USD is a Catholic university whose primary aim is teaching excellence. Active scholarship by the faculty is considered essential to this aim. The candidate is expected to maintain an active research program which has the potential for undergraduate involvement. Teaching experience is desirable. Women are particularly encouraged to apply. Application materials consisting of curriculum vitae, a description of teaching philosophy and research interests, and names and addresses of three professional references must be received before 15 February 1988. Address all correspondence to:

Dr. Louis E. Burnett Chair, Search Committee Department of Biology University of San Diego Alcala Park San Diego, CA 92110

CHAIR, DEPARTMENT OF GEOLOGY UNIVERSITY OF NEBRASKA-LINCOLN (SEARCH RE-OPENED)

Applications and nominations are invited for the position of Chairperson of the Department of Geology of the University of Nebraska–Lincoln. Appointment will be at the full professor level; salary is open and will reflect experience and qualifications. A Ph.D. is required. Responsibilities include leadership of the Department

Responsibilities include leadership of the Department and maintenance of strong ties with the State Museum, State Geological Survey, alumni, industry and government agencies. Applicants should have developed an internationally recognized research program, preferably using quantitative approaches. A record of success with funding agencies is expected. The chair is also expected to teach and to direct the work of graduate students.

thinding agentics is expected. The chair is also expected to teach and to direct the work of graduate students.

The department has 13 faculty; qualified staff from the Museum and the Survey; also teach and direct the work of graduate students. The department has modern, newly renovated quarters, and extensive instrumentation and computer capabilities. Graduate student and faculty research emphasizes the integration of field and laboratory studies, primarily in soft-rock geology and hydrogeology.

Applicants should send curriculum vitae, list of publications, a description of current and planned research, a list of courses taught, and names and addresses of three references by 15 February 1986 (or until suitable candidates apply thereafter) to:

Anthony F. Starace Chair, Geology Search Committee 1223 Oldfather Hall University of Nebraska-Lincoln Lincoln, NE 68588-0312

Note: Previous candidates need not reapply since already submitted materials will be utilized.

Affirmative Action/Equal Opportunity Employer

DIRECTOR OF AUDIOLOGY

The Department of Otolaryngology at the University of Minnesota is inviting applications for the position of associate professor or professor, depending on qualifications. This is a tenured position. Applicants should have a Ph.D. in audiology, hearing science, or related discipline. CCC-A is preferred. The successful candidate will direct the activities of the Audiology Clinic, teach medical students and graduate students, and conduct research. The last date for receipt of applications is 15 February 1988. Applicants should send curriculum vitae, three letters of recommendation, copies of published and unpublished research work, and a brief statement of professional and research interest to:

David A. Nelson, Ph.D., Professor Chairman of Audiology Search Committee Department of Otolaryngology Box 396 University of Minnesota Hospital and Clinic Harvard Street at East River Road Minneapolis, MN 55455

The University of Minnesota is an Equal Opportunity Educator and Employer, and specifically invites and encourages applications from women and minorities.

POSITIONS OPEN

CHAIRMAN GRADUATE PROGRAM IN BIOENGINEERING PENN STATE

Nominations and applications are invited for the position of Chairman, Graduate Program Committee in Bioengineering at The Pennsylvania State University. The program, which is jointly administered by the College of Engineering and the Graduate School, currently offers courses and has research activities in electrophysiology, artificial organs, medical imaging, bioengineering mechanics and transport phenomena. The successful candidate must possess academic credentials of the highest quality including an earned doctorate and an established reputation in a bioengineering field. The College seeks an individual who will provide innovative and energetic leadership, with strong administrative qualities. Nominations and letters of application, accompanied by curriculum vitae and supporting materials, will be received by: The Chairman, Bioengineering Chairman Search Committee, 233 Engineering Lab/Office Building, Box S, The Pennsylvania State University, University Park, PA 16802, before 28 February 1988, or until the position is filled. An Equal Opportunity/

DEPARTMENT OF NEUROLOGY UNIVERSITY OF CALIFORNIA, IRVINE

CLINICAL INSTRUCTOR/POSTDOCTORAL FELLOWSHIP for M.D. and/or Ph.D. in electrophysiology to record somatosensory evoked potentials using natural stimuli. All interested applicants should send curriculum vitae and three letters of reference to: Dr. Arnold Starr, Professor, Department of Neurology, University of California, Irvine, Irvine, CA 92717. An Equal Opportunity/Affirmative Action Employer.

CYTOGENETICIST M.D./Ph.D. Physician or pathologist preferred. Specialty certification (or equivalent training) and background in clinical diagnostic and research work important. Funded basic research grant support and evidence of productivity critical. Experience and a record of scholarship with a strong publication record are required. Minimum of 2 years of experience in human cytogenetics necessary. Women and members of minority groups are encouraged to apply. Please forward curriculum vitae to: John E. Craighead, M.D., Department of Pathology, University of Vermont, Burlington, VT 05405. Applications will be accepted until 1 February 1988.

DEVELOPMENT ASSISTANCE POSITION. Tropical Research and Development, has immediate opening in Florida for Ph.D. professional in resource or agricultural economics, applied anthropology, or forestry. Field experience in Africa; French fluency; excellent verbal and writing skills; project management experience with Agency for International Development. Send complete résumé to: Dr. Josh Dickinson, 4010 Newberry Road, Suite C, Gainesville, FL 32607.

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.

REPORTER RESEARCH NEWS SECTION OF SCIENCE

The Research News section of Science has an opening for a PhD in the physical or engineering sciences who is interested in reporting on developments in these areas for the magazine. Candidates should display an ability to write lucid and lively articles. Coverage would include current topics in chemistry, physics, materials science, and engineering. An application for this full-time position in Washington, D.C. should include a curriculum vitae, salary requirements, a letter describing your interest in Research News, and appropriate writing samples. Please send requested information to: C. Bell, SCIENCE, 1333 H St., N.W. Washington, D.C. 20005. EOE

The Uncommon Company

DIAGNOSTICS RESEARCH SCIENTIST

Marion Laboratories, Inc., a leader in the rapidly expanding, high technology segment of the health care industry, currently has positions available for research scientists in our Diagnostic Affairs Department within the R&D Division. These positions will be located in Kansas City, Missouri.

Primary responsibilities will include isolation and purification of antigens and antibodies, preparation of diagnostic reagents, development and validation of assay protocols and interaction with marketing and manufacturing groups.

Candidates must have a graduate degree in Immunology, Microbiology, Biochemistry or a related science and three years of experience in developing diagnostic products. Experience in all phases of diagnostics research from product development through production is desirable.

We offer a complete compensation and benefit package to include bonus, stock options, profit sharing, comprehensive group health, dental and life insurance benefits. Qualified candidates should submit a detailed resume including salary history to: **Recruiting & Placement, Dept. CRL, P.O. Box 9627, Kansas City, MO 64134.** Equal Opportunity Employer.



An Uncommon Opportunity

PREDOCTORAL TRAINING OPPORTUNITIES IN TOXICOLOGY

are available in the College of Pharmacy and Allied Health Professions. B.S. and M.S. degrees in Toxicology are offered as well as a Ph.D. in Pharmaceutical Sciences with a subspecialization in Toxicology. Competitive Assistantships and Fellowships with full tuition remission are available for qualified applicants. For more information please write to: **Dr. Ijaz S. Jamall**,

Toxicology Program,

Department of Pharmaceutical Sciences, College of Pharmacy and Allied Health Professions, St. John's University, Jamaica, NY 11439.

THE UNIVERSITY IS **ST. JOHN'S**

Research Associates/Postdocs Pharmacological Sciences

Genentech, Inc., a leader in the field of biotechnology, currently has the following openings:

Postdoctoral Scientist

Our Pharmacological Sciences Department seeks an individual to participate in research projects examining the molecular mechanisms of the effects of cytokines, immunosuppressive and anti-inflammatory agents, and recombinant proteins on cell function.

The successful candidate will have 1-3 years' training with experience in one or more of the following areas: cell biology, protein chemistry, or signal transduction. Experience in working with animal model systems helpful.

Research Associate

In this position you'll perform in vitro testing of cytokines, immunosuppressive peptides, and anti-inflammatory proteins using a variety of assay systems. In addition, the position requires maintenance

of cell cultures and characterization of protein samples.

The qualified candidate will have experience with cell culture, polyacrylamide gel electrophoresis and preparation of human leukocytes for in vitro testing. B.S. with 3-5 years' experience or M.S. with 2 years' experience in related areas required.

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 Sherrie G. Wilkins, Genentech, Inc., 460 Pt. San Bruno Blvd., South San Franicsco, CA 94080. An equal opportunity employer.

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

Genentech, Inc. Genentech, Inc.



Evolutionary Biology

The Department of Biology is engaged in building an interdisciplinary program in the evolutionary sciences and invites applications for positions at the senior and junior levels. While outstanding scientists working in any area of evolution will be considered, areas of particular interest to our faculty include molecular approaches to population biology or phylogeny, developmental approaches to evolution, evolution of genome organization, and quantitative approaches to evolutionary problems

We seek individuals with a strong interdisciplinary inclination, who might profit from interaction with the Department's strong programs in molecular, cell, developmental, and organismal biology.

Send curriculum vitae, description of research interests and names and addresses of at least three references by January 25, 1988, to:

The Chairman Department of Biology Yale University PO Box 6666 New Haven, CT 06511

Yale University is an Affirmative Action/Equal Opportunity Employer.

MOLECULAR BIOLOGISTS

Merck Sharp & Dohme Research Laboratories is currently offering excellent career opportunities for Molecular Biologists to join the expanding department of Cellular and Molecular Biology. Research will include the application of a broad spectrum of techniques in recombinant DNA, such as DNA/RNA preparation, construction and screening of genomic and cDNA libraries, blot analysis, DNA sequence analysis, DNA vector constructions, and site-directed mutagenesis. These techniques will be applied to the isolation, analysis and expression of genes of potential pharmaceutical interest.

A B.S. or M.S. in Biochemistry or the equivalent with at least three years of broad and significant experience in molecular biology are required.

Excellent salary and benefits programs accompany these positions at our modern research facilities in Rahway, New Jersey and West Point, Pennsylvania.

Please send your resume, three professional references whom we may contact, salary requirements as well as geographic preference in complete confidence to: Manager Personnel Relations, W42-2, Merck Sharp & Dohme Research Laboratories, West Point, PA 19486. EEO/AA/VH/Employer.



Merck Co. & Inc.

MATERIALS SCIENTIST

As the undisputed world leader in medical diagnostics recognized for ground breaking tests in the detection of Hepatitis B, Rubella, German Measles and most recently, AIDS, Abbott Laboratories offers one of the most stimulating scientific environments arywhere. Our Diagnostics Division now seeks an individual to support our product development efforts through the evaluation of fluidic and bio-compatible properties of microporous membranes, and their compatibility with plastics, adhesives and environmental stress. Experience in materials science, immunochemistry and work involving polymer-protein interactions and bio-compatibility of polymers is preferred.

With a scientific setting supported by confirmed superior management, Abbott offers an excellent salary, and full benefits including profit sharing and stock retirement plans. We are headquartered just 30 miles north of Chicago on the Lake Michigan shoreline. For confidential consideration, please send your resume with salary history in confidence to: Peggy Taylor/Corporate Placement, Dept. SCI/12-11. Abbott is an Affirmative Action Employer.



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



THE UNIVERSITY OF NEW SOUTH WALES

SYDNEY/AUSTRALIA

ASSOCIATE PROFESSOR OF DRUG AND ALCOHOL STUDIES TO BE

Deputy Director

NATIONAL DRUG AND ALCOHOL RESEARCH CENTRE

Applications are invited for appointment to the position of Associate Professor of Drug and Alcohol Studies to be Deputy Director for the National Drug and Alcohol Research Centre. The Centre has been established within the University on the basis of funding provided by the Commonwealth Government through the State Department of Health. Its aim is to extend the knowledge base required for effective treatment and rehabilitation of individuals with alcohol and drug related problems. A second national Centre has also been established in Perth, Western Australia, which will undertake research into the prevention of drug abuse. The Centre will be multi-disciplinary and cooperate with medical, psychology and social science schools at the University and with other bodies and individuals in Australia. Applicants should possess high academic qualifications, have a well established record of research in this field and have the capacity to manage a research program.

The appointment will be for five years with a possibility of renewal.

Enquiries regarding the position may be directed to Professor B.B. Heather, Director, National Drug and Alcohol Research Centre, University of New South Wales, P.O. Box 1, Kensington, N.S.W. 2033, Australia. Salary: A \$49,790 per annum.

Subject to consent by the University, the appointee may undertake a limited amount of higher consultative work.

Details of the position, together with the conditions of appointment and application procedure, are available from the Academic Staff Office, P.O. Box 1, Kensington, NSW Australia 2033.

Applications close: 31 January 1988.

Equality of employment opportunity is University policy.

Cell Biology Research

The Upjohn Company, a world leader in the research and development of pharmaceuticals, has several Associate position openings in Cell Biology research.

Biology Associate

Successful candidate will have a BS or MS degree in Cell Biology or related field to investigate endocytic processes and membrane sorting in cultured mammalian cells. Requirements include a demonstrated proficiency in transmission electron microscopy and tissue culture. Experience with monoclonal antibodies, immunocytochemistry and immunofluorescence would be helpful. Responsibilities will include a specific project, and collaboration with other groups regarding morphological techniques.

Biochemistry Associate

Position requires a BS or MS degree in Cell Biology or related field and the work involves both basic research on protein secretion and glycosylation and applied studies of recombinant glycoproteins from heterologous expression systems. Candidate must have knowledge and experience in tissue culture and protein isolation and characterization, including state-of-the-art liquid chromatography methods. Experience in oligosaccharide analysis is desirable.

Kalamazoo is located in Southwestern Michigan midway between Chicago and Detroit and offers varied cultural events, cosmopolitan shopping and entertainment, lakes and woodlands minutes away, abundant year-round sports and recreation. Upjohn offers advancement opportunities, a highly competitive salary commensurate with experience, comprehensive benefits and relocation assistance. For confidential consideration, please call from outside of Michigan toll free 1/800/253-8600, ext. 3-6767, (inside Michigan call collect 616/323-6767) to request an employment application be sent to you immediately. Please refer to position number 1855-A when calling.

We are an Equal Opportunity Employer M/F.



Our Commitment to Scientific Excellence Continues ...

DEAN OF THE SCHOOL OF MEDICINE WASHINGTON UNIVERSITY

Applications are invited for the position of Dean of the Medical School. Duties of the Dean include: allocation of resources, long-range financial and program planning, direction of student affairs, appointment of all standing committees and chairmanship of the executive faculty. The individual selected as Dean will also be recommended to the Chancellor of the University for appointment as Vice Chancellor's responsibilities include: fund raising and public relations, representation of the Schools of Medicine and Dental Medicine in interactions with affiliated hospitals, medical practice organizations, government and industry.

Candidates must have a distinguished record in clinical medicine or biomedical research. They must possess a firm commitment to academic excellence and a clear view of economic, social and political problems facing modern academic health centers.

Applications should include curriculum vitae and names of three references. Address correspondence to: Gerald D. Fischbach, M.D., Chairman, Department of Anatomy and Neurobiology, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110.

Washington University is an Equal Opportunity Employer



THE OREGON HEALTH SCIENCES UNIVERSITY DIRECTOR, BIOMEDICAL INFORMATION COMMUNICATION CENTER

Applications are sought for **DIRECTOR** of a new \$20-million Biomedical Information Communication 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 application of computers to medicine. Administrative experience and management kills are essential

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 Committee, L471, The Oregon Health Sciences University, Portland, OR 97201. Late applications may be considered until the position is filled. An Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION, Oregon State University (OSU), PLANT MOLECULAR BIOLOGY: A 12-month tenure-track position at the assistant or associate professor level in the Department of Agricultural Chemistry, Applicants must have a Ph.D. in molecular biology, biochemistry, or a related field, and postdoctoral experience, preferably in molecular biology of plants, and be prepared to develop vigorous, innovative externally funded research programs applying molecular/genetic techniques to the study of plant functions important to agriculture and forestry and to direct graduate students. Familiarity with vector and transformation techniques is of particular interest. Research programs are assisted through affiliation with the Center for Gene Research and Biotechnology at OSU. Submit curriculum vitae, including a statement of research interests, and arrange for three letters of recommendation to be sent by 11 January 1988 to: Dr. G. S. Beaudreau, Chairman of Search Committee, Department of Agricultural Chemistry, Oregon State University, Corvallis, OR 97331. 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 dual-career couples.

POSITIONS OPEN

EMBRYOLOGY LABORATORY

Private infertility practice is seeking a highly motivated B.S./M.S. (biology, zoology) with interest/experience in reproductive physiology to be responsible for all aspects of IVF area operation and management in a successful ultrasound-guided oocyte retrieval program. Candidate should possess good sterile technique, experience with tissue culture media preparation, and familiarity with microscope optics and video/photo documentation systems as well as operation of other basic laboratory equipment. Experience with oocyte identification and embryo staging (or willingness to-learn) is desired. Salary commensurate with experience. Send résumé and salary history to: Dr. Ed Gaunt, Center for Reproductive Medicine, 2034 Randolph Road, Charlotte, NC 28207.

BIOMEDICAL ENGINEERING ENDOWED CHAIR OF EXCELLENCE is available in the Department of Biomedical Engineering in the College of Engineering. University of Lowa

neering, University of Iowa.

The Chair is generously endowed together with substantial peripheral support. The candidate should possess: (i) an earned doctorate in biomedical engineering or an allied discipline; (ii) tangible evidence as a teacher and scholar and (iii) a national reputation in biomedical engineering. Preference will be given to the candidate with a strong track record in biomedical engineering innovation and product development. The University of Iowa offers an environment highly conducive for research at the highest level in both the Colleges of Engineering and Medicine. Nominations or application materials should be sent to: Y. King Liu, Professor and Director, Center for Materials Research, Department of Biomedical Engineering, University of Iowa, Iowa City, IA 52242 preferably by 1 February 1988 or until the position is filled. University of Iowa is an Equal Opportunity/Affirmative Action Employer.

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 \$1 million, 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 Division of Nephrology, Hypertension and Transplantation 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 biology 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 Action Employer.

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,

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.

POSITIONS OPEN

ENDOWED PROFESSORSHIP IN BIOLOGICAL OCEANOGRAPHY DUKE UNIVERSITY MARINE LAB

Applications and nominations are invited for the Harvey W. Smith Chair and Biological Oceanography. This is a tenured full professorship with an endowed 9-month salary, plus fellowship funds for graduate and undergraduate students. The Smith Professor will be resident at the Duke Marine Laboratory, Beaufort, North Carolina, and will hold a tenured appointment in an appropriate department on the Durham Campus of Duke University.

Applications are invited from leading biological oceanographers who would pursue a vigorous program of research and teaching at Duke Marine Laboratory. Excellent opportunities exist for interaction with faculty in the Duke Departments of Biochemistry, Botany, Geology, Physiology, and Zoology and the Schools of Engineering and Forestry and Environmental Studies. As well as other branches of the Duke/UNC Oceanography Consortium, the Consortium operates the RV Cape Hatteras and has an expensive pool of oceanography instrumentation.

The closing date for applications is 1 February 1988; an appointment will be made by 1 July 1988. Applications including a complete curriculum vitae, reprints of significant recent publications, a statement of research interest and the names of at least three references should be sent to: Professor D. A. Livingstone, Department of Zoology, Duke University, Durham, NC 27706; Telephone: 919-684-3264. Duke University is an Equal Opportunity/Affirmative Action Employer.

ENGINEERING FACULTY POSITION—The Department of Environmental Science and Engineering, George R. Brown School of Engineering, Rice University, invites applications for a tenure-track position at the assistant professor level, beginning 1 July 1988.

assistant professor level, beginning 1 July 1988.

Applicants must be engineers with the Ph.D. or equivalent. An active research program and teaching at the undergraduate and graduate levels will be required. Research interests should be in the physical and chemical processes of water and wastewater treatment, and the fate and transport of organic and inorganic compounds in the

environment. Salary is competitive and negotiable.
Send curriculum vitae to: Dr. C. H. Ward, Chairman, Department of Environmental Science and Engineering, Rice University, P.O. Box 1892, Houston, TX 77251. Rice University is an Affirmative Action/Equal Opportunity Employer.

HARVARD UNIVERSITY ENGINEERING FLUID MECHANICS

Applications and nominations are invited for a JUN-IOR FACULTY POSITION in Engineering Fluid Mechanics, to begin September 1988. The initial appointment will be for either 3 or 5 years. Candidates should have research interests spanning theory, computation, and experiment. Areas of specialization may include (but are not limited to): multi-phase flows; flows including particulate suspensions; non-Newtonian rheology; stability and turbulence; and flows contained by flexible boundaries. Applications may bear on problems in mechanical, chemical, or biomedical engineering. Applicants should send curriculum vitae, including names of three references, and a list of publications to: Professor George F. Carrier, Chairman, Fluid Mechanics Search Committee, Division of Applied Sciences, Harvard University, Pierce Hall 311, Cambridge, MA 02138. Harvard is an Equal Opportunity/Affirmative Action Employer.

University of Toronto. EVOLUTIONARY BIOLOGIST, Division of Life Sciences, Scarborough Campus. Applications are invited for a tenure-track position at the assistant professor level starting on 1 July 1988. Applicants should have postdoctoral experience. The successful applicant will be responsible for teaching undergraduate courses in evolutionary biology and population genetics, and be expected to pursue research and to participate in the graduate program. Applicants should submit, by 31 January 1988, curriculum vitae and arrange to have three letters of reference sent to: Dr. R. Boonstra, Chair of Search Committee, Division of Life Sciences, Scarborough Campus, University of Toronto, 1265 Military Trail, Scarborough, Ontario, Canada, M1C 1A4. The University encourages both men and women to apply. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens or permanent residents of Canada.

RESEARCH FELLOWSHIPS IN **NUTRITION FOR MEDICAL STUDENTS**

THE ROCKEFELLER UNIVERSITY

A new program for one year research fellowships has been made available by the Pew Charitable Trusts. Up to six medical students will be selected to join the Pew Center of Nutritional Excellence at Rockefeller University in New York City. The core activity of fellows will be investigative work in basic biomedical laboratories at Rockefeller University on projects relevant to human nutrition. Applicants should currently be in the junior year of any medical school in the U.S.A. A generous stipend and housing allowance will be offered to those selected for the fellowship year to begin July 1,

Applications must be completed no later than February 1, 1988 to allow for full consideration. A small number of applicants will be invited to New York City for interviews in March, 1988 and final selection will be made early in April. For application forms and further details

> DR. JULES HIRSCH THE ROCKEFELLER UNIVERSITY 1230 YORK AVENUE NEW YORK, NEW YORK 10021-6399

Development **Scientists**

Join our team of bold thinkers in one of the following research capacities.

PRINCIPAL SCIENTIST—Responsibilities will entail assay development at the bench as well as the responsibility for 2-3 scientists. The successful candidate should have a Ph.D in Bioanalytical Chemistry or Biochemistry with 3-5 years post doctoral experience preferably in an industrial setting. In addition, experience in all areas of protein chemistry including HPLC and immunoassays; and good written and oral communication skills are essential.

POLYMER/PROTEIN CHEMIST—Responsibilities will include methods development on complex protein mixtures with strong emphasis on HPLC. Requires a Ph.D in Analytical Chemistry, 3-5 years' post doctoral experience (preferably industrial), and strong written and oral communication skills. Some supervisory experience is desirable, but not essential.

We offer a fully commensurate salary and attractive benefits package. Please forward your resume, indicating position of interest, in confidence to: B. Van Vliet, Schering-Research, 2000 Galloping Hill Road, K61, E17, Kenilworth, NJ 07033. We are an equal opportunity employer.



Schering-Plough

Postdoctoral Scientists Immunochemistry Seeking innovative scien-

tists for postdoctoral research appointments to advance our position of leadership in second generation anti-idiotypic monoclonal technology for therapeutic applications. Publications encouraged. Ph.D. with experience in the development of immunotherapeutic agents for treatment of parasitic and viral diseases preferred.

Synbiotics offers an attractive salary and benefits program, as well as a stimulating, highlycreative work environment. Qualified individuals should send their resume, in strict confidence to: Vice President R&D, 11011 Via Frontera, San Diego, CA 92127. We are an equal opportunity employer.



SECTION HEAD MOLECULA

The division of Immunopharmacology within the department of Experimental Therapeutics at Wyeth-Ayerst Research, has an immediate opening for a senior immunologist. The selected candidate will head the Molecular Immunology section that is investigating the role of cytokines (e.g. Interleukin 1) and growth factors in the pathogenesis of arthritis.

Responsibilities will include directing and performing radioreceptor binding assays for IL 1 to elucidate structure activity relationships, integrating biochemical and immunological data to develop a better understanding of cytokine actions and developing strategies for exploring therapeutic potential of growth factor inhibitors/antagonists, in various rheumatological disorders. This position reports to the divisional director, will be responsible for the day-to-day activities of the group, and would be expected to define attainable goals in drug discovery. The candidate is expected to collaborate actively with other senior members of the division and will be called upon to interface his/her research within the general scheme of the Immunopharmacology's projects.

Candidates should possess a Ph.D. in Immunology with 3-5 years of research experience in cytokine receptors, immunological and biochemical markers of experimental arthiritis, and an appreciation of in vivo procedures.

The ideal candidate will have excellent management, supervisory and comunication skills and demonstrated achievement through publications in peer reviewed

Wyeth-Ayerst offers an excellent salary and benefits package along with opportunities for career advancement. Our modern laboratory facilities are conveniently located in central New Jersey. Interested candidates should forward their curriculum vitae indicating salary history to:

Personnel Manager, Dept. JC

WYETH-AYERST RESEARCH, INC.

CN 8000, Princeton, NJ 08543-8000 An Equal Opportunity Employer M/F/H

FACULTY POSITION MOLECULAR PHARMACOLOGY/ TOXICOLOGY

The Department of Pharmacology, Northwestern University Medical School, invites applications for a tenure-track position at the assistant or associate professor level. Candidates should have a Ph.D. or M.D. degree or equivalent, have had postdoctoral training, and have demonstrated excellence in research and commit-ment to teaching. Preference will be given to those who have had experience in application of molecular biology, genetics, cell biology, or immunology to toxicological problems. Send curriculum vitae, the names of three references, and a brief statement of future research plans to: Dr. Toshio Narahashi, Professor and Chairman, Department of Pharmacology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611. Telephone: 312-908-8284. An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN CHEMISTRY

The Department of Chemistry of The University of Tulsa invites applications for a tenure-track position in chemistry. The area of specialization is open, but candidates with expertise in biochemistry, polymer chemistry, catalysis, or analytical chemistry would complement existing strengths. Applicants at all levels are welcome. Salary and start-up funding are competitive. Send curric ulum vitae, a brief summary of research interests, and three letters of recommendation to: **Dr. Robert How**ard, Chairman, Department of Chemistry, University of Tulsa, 600 South College, Tulsa, OK 74104 by 1 February 1988. The University of Tulsa is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN EYE RESEARCH— The Departments of Ophthalmology and Anatomy of Thomas Jefferson University are seeking an individual at the Assistant Professor level for a joint tenure-track appointment to these departments. Applicants should have postdoctoral training and a demonstrable ability to establish a strong and creative research program in an area of visual or oculomotor biology including, but not limited to, areas of embryology, cell biology, biochemisimited to, areas of emoryology, cell blology, blochemistry, physiology, or motor control. Applicants are especially sought who can apply modern methods of cellular and molecular biology to basic problems of oculomotor control. The appointee will also be expected to interact with the clinical faculty and to participate in teaching of graduate and medical students. Interested applicants should send curriculum vitae, a statement of research plans, and objectives and three letters of reference to: Dr. Gerald B. Grunwald, Search Committee Chairman, Department of Anatomy, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107. Thomas Jefferson University is an Equal Opportunity/Affirmative Action Employer.

GENERAL MANAGER MARINE TECHNOLOGY SOCIETY (MTS)

The General Manager reports to the elected Society President, and manages all headquarters activities and staff in the Washington, D.C. locale.

The General Manager has fiscal responsibility for the

Society and assists in the preparation of the annual budget. Duties include preparation and scrutiny of conference, section, committee and special project budgets, and maintenance of financial records for the Society

The General Manager is responsible for all policies and procedures established by the Council, the Executive Committee, the President, and the By-Laws, and is the primary contact or those officers with the headquarters staff. The General Manager will provide support services for conferences and meetings as required and act as

liaison to committee and section officers.

MTS seeks an innovative, self-motivated individual with good communication abilities and financial management experience. Prior management experience in a professional society is desirable. Business management experience a must.

Present position holder is cognizant of this solicitation and is a viable candidate for the position.

Send letter of application, résumé, salary history and requirements to:

Mr. Morris A. Ransone Director, Search Committee International Industries, Inc. 823 West Street Annapolis, MD 21401

POSITIONS OPEN

FACULTY POSITION IN MOLECULAR BIOLOGY

The Department of Veterinary Pathobiology, The Ohio State University invites applications for a tenure-track position at the assistant or associate professor level. The applicant should have a Ph.D. degree with postdoctoral research experience in molecular biology and a strong commitment to research and graduate education. Research experience in biological sciences, veterinary medicine, or animal science is desirable. Development of an independent research program with extramural support and collaborative research efforts with faculty and graduate students on animal and human health-related problems is essential. Applications should include a curriculum vitae, list of publications, summary of current research activities, and names of at least four individuals from whom letters of reference may be solicited. Deadline for receipt of applications is 1 March 1988. Address all correspondence to: Dr. Charles Capen, Professor and Chairman, Department of Veterinary Pathobiology, The Ohio State University, 1925 Coffey Road, Columbus, OH 43210.

The Ohio State University is an Equal Opportunity and

Affirmative Action Employer

FACULTY POSITION: VETERINARY/MEDICAL ENTOMOLOGIST. The Department of Environmental Health has a tenure-track position in veterironmental Health has a tenure-track position in veteri-nary/medical entomology at assistant/associate professor level. Preference to candidates with demonstrated exper-tise in the epidemiology of vector-borne diseases. The successful candidate will develop a vigorous research program, supervise graduate students, and participate in the teaching program. A doctoral degree (Ph.D., D.V.M., M.D.) and postdoctoral experience required. Send curriculum vitae, statement of research interests, and names of three references by 15 February 1988 to: Barry J. Beaty, Department of Microbiology, Colorado State University, Fort Collins, CO 80523. CSU is an Equal Opportunity/Affirmative Action Employer.

IMMUNOLOGIST/MICROBIOLOGIST

Full-time tenure-track position in a nine-member biology department. Master's required, Ph.D. preferred. Experience teaching at the college level preferred; to teach undergraduate microbiology, medical microbiology, immunology, virology, and introductory biology. Initial review of applications begins 1 February 1988. Submit letter of application, résumé, three letters of recommendation, and unofficial transcripts to: Personnel Services, Northeastern State University, Tahlequah, OK 74464. An Equal Opportunity/Affirmative Action Employer.

MICRORIOLOGIST

A tenure-track assistant professorship is available in the Wilkes College Department of Biology for a Microbiologist. Ph.D. required. Teaching responsibilities include upper-level electives in bacteriology and immunology and general microbiology for nursing majors. Teaching the laboratory portion of a cell and molecular biology course may be required, and the possibility exists for the candidate to develop an elective in his/her area of interest. Research with upper-level students is encouraged and student advising is a requirement. The starting date is 1 September 1988.

Located in a medium-sized city in northeastern Pennsylvania, Wilkes is a comprehensive, independent, coeducational institution of about 2500 students, offering bachelor's and master's degree programs in the arts and sciences, business administration, and engineering. The campus parallels the Susquehanna River and features a number of stately turn-of-the-century mansions, now used as office and dormitory facilities. The science program attracts outstanding students, possesses modern laboratories, and emphasizes superior teaching through a

strongly interactive approach to learning.
Submit curriculum vitae, a statement of interests, copies of graduate transcripts, and three letters of recommendation by 31 January 1988, to:

Dr. Lester J. Turoczi Biology Department
Wilkes College
Wilkes-Barre, PA 18766
Telephone: 717-824-4651, extension 345

Wilkes College is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FACULTY POSITION IN NEUROBIOLOGY DARTMOUTH MEDICAL SCHOOL

Dartmouth Medical School is expanding in the area of neuroscience through the establishment of the Center for Molecular and Cellular Medicine. In conjunction with this expansion, the Department of Biochemistry seeks a new faculty member with primary research interests in molecular and/or cellular neurobiology. The individual will be appointed at the assistant professor level and will participate in the teaching activities of the department. Applicants should submit curriculum vitae, a statement of research interests and plans, and the names of three references to: Search Committee, Department of Biochemistry, Dartmouth Medical School, Hanover, NH 03756. Dartmouth Medical School is an Affirmative Action/ Equal Opportunity Employer.

IMMUNOLOGIST

Tenure-track assistant/associate professor in the Department of Life Sciences. Ph.D. with 2 years of postdoctoral experience required. The candidate is expected to establish a research program and participate in undergraduate and graduate teaching. Applicants in any area of immunology will be considered; individuals with expertise in molecular immunology, immunogenetics and mechanism of pathogenesis or immunoregulation are encouraged to apply. Position available as early as June 1988. In order to receive full consideration, curriculum vitae, three letters of reference, and a summary of current and planned research interests should be sent by 18 January 1988 to: Dr. William J. Brett, Chairperson, Department of Life Sciences, Indiana State University, Terre Haute, IN 47809. Indiana State University is an Equal Opportunity/Affirmative Action Employer

MEDICAL MARKETING RESEARCHERS-Creative natural sciences or psychology Ph.D.'s/M.S.'s needed for careers in health care marketing research/ consulting. Positions require analytic problem-solving ability, comfort in working with groups of professionals, excellent writing skills, and some statistics. Our firm offers an interesting alternative to an academic career, utilizing your research skills in a creative and financially rewarding way. Résumés to: J. A. Cohen, Ph.D., National Analysts, Division of Booz Allen and Hamilton Inc., 400 Market Street, Philadelphia, PA 19106. An Affirmative Action Employer.

MOLECULAR IMMUNOLOGIST with demonstrated excellence in genetic analysis, cloning, and expression of genes coding for factors involved in immune system function and/or development. The successful can-didate must also possess a strong background in microbi-ology and interest in the application of current molecular techniques to the study of animal diseases or immunopa-thology. Postdoctoral experience required. Undergraduthology. Postdoctoral experience required. Undergraduate and graduate teaching consistent with other science faculty. Available 1 July 1988. Assistant professor, 12 months, tenure track in Colleges of Science and Agricultural Sciences (Agricultural Experiment Station). Application closing date:1 April 1988. Send curriculum vitae, transcripts, and three letters of recommendation to: J. L. Fryer, Chairman, Department of Microbiology, Oregon State University, Corvallis, OR 97331–3804.

OSU is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of

Ph.D. BIOCHEMIST/IMMUNOLOGIST with minimum of 5 years of work experience in protein purification, HPLC and SDS-PAGE chromatography, Ab product, and characterization (poly and mono) for RIA and ELISA, plus additional experience with DNA probe techniques for Dx assay development. Entrepreneurial spirit essential and rewarded accordingly by this New York Company. Send curriculum vitae, list of publications, and list of references to: **Box 185, SCIENCE.**

Ph.D.—SURGERY: Surgical laboratory in Universi-Ph.D.—SURGERY: Surgical laboratory in University-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. Send curriculum vitae with salary history to: Marie Murtha, Employment Representative, Long Island Jewish Medical Center, New Hyde Park, NY 11042. An Equal Opportunity Employer.

THE CHINESE UNIVERSITY OF HONG KONG

Applications are invited for the following post:

LECTURER IN PHARMACOLOGY

The Department of Pharmacology teaches a one-year pharmacology course in the pre-clinical part of the Medical Course of the University, and participates in joint or integrated sessions on various topics forming part of the clinical teaching. The research fields in which the Department is currently engaged and for which it is equipped include drug metabolism, human and animal pharmacokinetics, transmitter substances, CNS pharmacology and molecular pharmacology. Applicants should have a doctorate in pharmacology or a related field, or a medical qualification, and strong interest in becoming part of a team teaching medical pharmacology. (The introduction of a science pharmacology course is unlikely.) The expected date of assumption of duty is August 1, 1988 or as soon as possible thereafter.

Annual Salary:

HK\$188,040–213,420 by 2 increments BAR HK\$226,080–314,340 by 7 increments (approx. exchange rate: £1 = HK\$12.90; US\$1 = HK\$7.8) Starting salary will depend on qualifications and experience

Conditions of Service: Benefits include long leave, annual leave, sick leave, superannuation (University 15% of salary; appointee 5%), medical benefits, education allowance for children, and housing allowance for an appointee whose annual salary is HK\$200,760 or above. An appointee on overseas terms will have passage benefits for himself/herself and his/her dependants as well.

Application procedure: Applications should be made out in duplicate, giving full particulars, experience as well as the names and addresses of three referees, and sent together with copies of certificates/diplomas, testimonials and recent publications to the Personnel Section, The Chinese University of Hong Kong, Shatin, Hong Kong before Jan. 15, 1987. Please quote reference number 91/509/2/87 and mark 'Recruitment' on cover.

ARTHRITIS RESEARCH BIOLOGISTS

The Upjohn Company is seeking to expand its arthritis research and drug discovery program with the addition of two Ph. D. biologists. These scientists will join a multidisciplinary team with the common objectives of understanding the autoimmune and inflammatory components of the arthritic process and to discover novel drugs for the therapy of human arthritic diseases. Candidates should have a Ph. D. degree in cell biology, immunology, pathology, physiology or biochemistry and have completed 1 - 6 years of postdoctoral research. They should have an interest and/or experience in autoimmune disease research and in the drug discovery process.

CONNECTIVE TISSUE BIOLOGIST

The successful candidate will establish a research program to study the regulation of connective tissue cell function during the pathogenesis and tissue remodeling in arthritic diseases. The influence of leukocytes and cytokines, such as interleukin-1, on the function of chondrocytes, osteoclasts, and osteoblasts in the arthritic joint would be of primary interest.

Basic research will be integrated with the establishment of model systems for the discovery of drugs which ameliorate the arthritic process by regulation of connective tissue biology.

MACROPHAGE IMMUNOLOGIST

We are seeking a biologist to establish a research and drug discovery program on the role of macrophages or other accessory cells, in autoimmunity and inflammation. We are particularly interested in the roll of cell surface la expression and antigen presentation in the regulation of normal and aberrant immune responses. Other areas of interest include understanding and regulation of macrophage-mediated functions in inflammation; secretion of monokines, such as interleukin-1 and other immunoregulatory or inflammatory products; or the genetic regulation of macrophage function in immune responsiveness.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a mix of excellent cultural, educational and recreational pursuits, including numerous lakes and a four-season climate. Upjohn offers a very competitive salary, commensurate with experience and an outstanding benefits program.

For confidential consideration, please call toll free 1/800/253-8600, ext. 3-6767, (inside Michigan call collect 616/323-6767) to request an employment application be sent to you. Please refer to Ad Number 1495 when calling.

An Equal Employment Opportunity Employer M/F Our commitment to scientific excellence continues...





IDEON CORPORATION is a new biotechnology research and development company located in Redwood City, CA. IDEON's research focuses on the development of products using anti-idiotypic monoclonal antibodies and novel immunomodulators. Ideon is seeking experienced scientists to play key roles in building this exciting new enterprise.

IMMUNOCHEMIST — Ph.D. in Biochemistry or Immunology with 3 + years of post-doctoral experience. Expertise in the chemistry of antibodies and peptide antigens, immunoassays and contemporary monoclonal antibody technologies.

MOLECULAR IMMUNOLOGIST — Ph.D. in Molecular Biology or Immunology with 3 + years of post-doctoral experience. Expertise in the molecular biology of immunoglobulins and/or immunoregulatory molecules.

Qualified candidates will have an opportunity to join a start-up company with the added strength of pharmaceutical manufacturing capability provided by IDEON's affiliation with INVITRON CORP. IDEON CORPORATION offers excellent salary, equity participation, and other benefits. An equal opportunity employer.

For confidential consideration, please forward your C.V. and a list of three references to IDEON CORPORATION, Attr. R&D Department, 515 Galveston Drive, Redwood City, CA 94063.

ASSOCIATE DIRECTORCellular and Molecular Biology

Merck Sharp & Dohme Research Laboratories' expanding long-term commitment to molecular and cellular biology has created the opportunity for a position of strong leadership. We seek a talented and experienced scientist to accept the responsibility for leading a group of 10 molecular biologists within projects in both research as well as product development. These multidisciplinary programs will be collaborative efforts within the research laboratories which utilize techniques in molecular and cellular biology for the cloning, identification and analysis of proteins of therapeutic, pharmacologic, or process development interest as well as the control of expression of such proteins.

The successful candidate possesses broad experience in a range of areas of molecular biology which include: regulation of gene expression, cDNA cloning and expression in eukaryotic host systems, viral vectors, structure/function studies of proteins, scale-up of recombinant mammalian cells, and protein analytical and purification techniques. Demonstrated research independence, 7 + years post-doctoral research, extensive supervisory experience, and an excellent publication record in molecular biology are all required. Strong communication and leadership skills, a desire to work as part of a multi-disciplinary team, and the ability to develop the talents of other scientists are very important. Industrial experience is a plus.

This position will provide an outstanding opportunity to implement novel research projects with the potential for significant impact in several areas of human health. Collaborations with other research departments will offer the opportunity for high visibility and career growth. We encourage broad interactions with the scientific community at large through collaborations, publications, and presentations at major scientific conferences. Additionally, a successful leader would be expected to be able to expand future responsibilities in this dynamic position.

Excellent salary, broad benefits, and generous relocation entitlements accompany this position in our new and spacious laboratories in Rahway, New Jersey. In confidence, please send your resume, four professional references whom we may contact, and salary history and requirements to: Mr. Jacques P. Kueny, MERCK SHARP & DOHME RESEARCH LABORATORIES, West Point, PA 19486. EEO/AA/VH/Employer.



DEAN

College of Liberal Arts and Sciences UNIVERSITY OF FLORIDA

The University of Florida invites nominations and applications for the position of Dean of the College of Liberal Arts and Sciences. The College, which enrolls more than 19,000 of the University's 35,000 students, offers 33 undergraduate and 26 graduate degrees in 23 departments and eight interdisciplinary programs. The number of National Merit Scholars entering the College places the University fifth among state universities nationwide. The College's 650 faculty members attract \$13 million in grant funds approach. funds annually

The University of Florida-the state's oldest and largest-is the 10th largest university in the U.S. and offers one of the nation's most comprehensive programs. The University is a member of the Association of American Universities and is recognized by the Carnegie Commission on Higher Education as a leading research

The Dean is the chief academic officer of the College and reports directly to the Vice President for Academic Affairs, who also serves as Provost. The Dean is responsible for defining and promoting the unique mission of the College and its various departments; communicating between the university administration and the departments; preparing and defending the College budget; dealing effectively and judiciously in personnel matters, promotion, tenure, and recognition of merit; and reviewing and evaluating programs. The Dean has assistant and associate deans to aid in these duties

Qualifications for this position are a distinguished record of scholarly accomplishments; excellence in university teaching; leadership ability; understanding of the varied educational and scholarly aims of all departments within Liberal Arts and Sciences; and administrative skills, including fiscal and personnel management

The anticipated starting date is on or before 1 September 1988. Salary is negotiable. This search will conform with Florida's "Government in the Sunshine" and Public Records Laws. Applications should include a letter addressing qualifications; a resume; and the names, addresses, and telephone numbers of five references. Send applications and nominations no later than 15 January 1988 to:

> Professor John J. Ewel. Search Committee Chair c/o Mrs. Linda Black 235 Tigert Hall University of Florida Gainesville, FL 32611

904/392-1468 (Professor Ewel) or 904/392-2404 (Mrs. Black)

The University of Florida is an equal employment opportunity/affirmative action employer

DIRECTOR

Cancer Epidemiology and Clinical Trials Unit

The Imperial Cancer Research Fund, one of the largest independent cancer research institutes in Europe, seeks a Director for its Cancer Epidemiology and Clinical Trials Unit, in succession to Dr Malcolm Pike. The unit situated in Oxford, is currently undertaking major studies on the aetiology of several cancers; on cancer incidence following exposure to radiation; certain industrial processes; effects of changes in smoking habits.

The Director will be responsible for the Unit's programme of research. The Unit has close links with the University Department of Community Medicine and the Fund's Cancer Studies Unit.

The successful candidate will be an experienced research scientist who has planned and undertaken major epidemiological studies. The post carries unlimited tenure and the salary will be in the range of £28,000 to £35,000.

Further information is available from Dr Margaret Swain, telephone 01144 1 242 0200 ext 2328. Applications, including a curriculum vitae and the names and addresses of three referees should be sent by 8th January 1988 to: Assistant Personnel Officer, Imperial Cancer Research Fund, PO Box 123, Lincoln's Inn Fields, London WC2A 3PX, England. Telex no: 265107, Fax no: 405 1556, Please quote ref no: 28/R.

E M RESEARCH CANCER

SAMUEL ROBERTS NOBLE FOUNDATION PLANT MOLECULAR BIOLOGY RESEARCH FELLOWSHIPS

Applications are invited for two Noble Foundation Fellowships for post-doctoral research in Plant Molecular Biology. These fellowships, which are for three years beginning October, 1988, are a key element in the development of a collaborative program between the Division of Plant Cell Biology, Noble Foundation, Ardmore, Oklahoma and the Plant Biology Laboratory, The Salk Institute for Biological Studies, La Jolla, California.

Collaborative projects in the laboratories of Richard Dixon (OK) and Chris Lamb (CA) include:

- a. Purification and characterization of trans-acting regulatory proteins involved in stress activation of plant defense genes
- b. Molecular and genetic analysis of signal transduction pathways
- Elucidation of mechanisms for engineering enhanced stress resistance

Please send resume and 3 letters of recommendation to Valerie Zatorski, Plant Biology Laboratory

The Salk Institute for Biological Studies P.O. Box 85800, San Diego, CA 92138-9216 Telephone: (619) 453-4100, Ext. 106

Equal Opportunity Employe

AAAS Memberships and Subscriptions

- · Whenever you write us about your membership or subscription, please attach a Science address label to ensure prompt ser-
- Mail to: Membership and Subscription Records, AAAS, 1333 H Street, NW, Washington, D.C. 20005.
- □ Change of Address: Please provide 6 weeks' notice. Paste an address label from a recent issue in the space provided. Print new ad-
- Query: If you have a question, place your address label here and attach this form to your letter.
- To join or subscribe: Mail this form with your payment, mark the appropriate boxes, and print your name and address in the space below. (For renewals, attach label.)

 ☐ Membership rates (individual only)
 ☐ \$65 USA
 ☐ \$97 Canada
 ☐ \$130 air-surface delivery via Holland □ \$92 Foreign ☐ Subscriber rates

□ \$130 Canada

Please print

□ \$125 Foreign

Zip

□ \$98 USA□ \$130 Canada□ \$163 air-surface delivery via Holland

☐ Bill me later □ Payment enclosed

Address

Name

City

State

SA16R7C

ATTACH

LABEL

HERE

ASSOCIATE VICE PRESIDENT FOR CORPORATE LIAISON AND TECHNOLOGY TRANSFER

Rutgers, the comprehensive public research university for the State of New Jersey, consists of 25 degree-granting schools and colleges located at campuses in New Brunswick, Newark and Camden, with educational services in many other communities throughout the state. The University's current operating budget exceeds \$400 million, and is presently engaged in a significant capital construction program.

Reporting to the Vice President for Research, the Associate Vice President's primary responsibilities will be (1) to facilitate transfer of technology arising out of faculty research to appropriate governmental and industrial users of it, and (2) to facilitate industrial support of faculty, in terms of grants and contracts, opportunities for collaboration, and the provision of equipment. Specific responsibilities will include developing and maintaining University relations with the corporate world by enhancing industry's awareness of the University and its scientific, technical and educational programs; developing mechanisms to foster formal cooperative relationships between University faculty members and specific companies in furtherance of the University's research mission; and aiding the University's advanced technology centers in the development of industrial support.

Qualifications include an earned doctorate with a distinguished record of research in an industry-related field and/or significant experience as an effective leader of research enterprises at the corporate level. Candidates should possess a demonstrated ability to develop and implement new programs, be familiar with and committed to academic excellence, and possess an understanding of industrial research needs and motivations for interactions with universities.

Salary is dependent upon experience and credentials. Nominations and applications must be received by December 31, 1987. Please address all correspondence to:

THE STATE UNIVERSITY OF NEW JERSEY RUTGERS

Office of the Vice President for University Administration and Personnel Old Queen's Building New Brunswick, NJ 08903

An Affirmative Action/Equal Opportunity Employer



National Research

Conseil national de recherches Canada

ASSOCIATE DIRECTOR

Research and Development Biotechnology Research Institute

The Biotechnology Research Institute of the National Research Council of Canada, Montreal Québec, is a government organization for industrial research, which ensures, in cooperation with Canadian industry, that biotechnological processes are developed and applied through R&D. The Institute conducts basic and applied research, oriented toward industrial development. In this role, it helps to create, develop, understand and spread knowledge in biotechnology in order to create employment, increase productivity and improve Canadian industry's competitive position in the world.

The Institute requires an Associate Director, Research and Development, who will report to the Director and who will: plan, develop and establish the Institute's research programs; direct the scientific research programs of the Institute and ensure the development of research expertise in biochemical engineering, genetic engineering, cell fusion and enzyme systems; co-operate with the Director, Industrial Programs, and assign the human resources required; assist in the recruitment and evaluation of scientific personnel; and prepare the investment and the operating budgets of R&D activities.

Candidates must have a Ph.D. in a discipline related to biotechnology such as microbiology, biochemistry, biochemical engineering and several years of experience. Applicants will have demonstrated their ability to establish and maintain contacts with industry. Experience in the management of scientific research programs and a good knowledge of matrix management of scientific research will be assets. Excellent command of English and French is an absolute necessity.

SALARY: Will be commensurate with qualifications and is supplemented by a competitive benefits package including relocation assistance.

Apply in writing, including a complete résumé, quoting reference number RB-86-83 to: Dr. Bernard Coupal, Director, Biotechnology Research Institute, 6100 Royalmount Avenue, Montréal, Québec, Canada H4P 2R2.

Canad'a

CORNELL UNIVERSITY MICROBIOLOGIST— ASSISTANT PROFESSOR

Applicants are invited for the position of assistant professor in the Department of Microbiology, College of Agriculture and Life Sciences, Cornell University. This is Agriculture and Life Sciences, Cornell University. This is a tenure-track 12-month appointment. Those applying should possess a strong background and interest in prokaryotic biology. The appointee will be expected to underrake a vigorous research program and participate in undergraduate and graduate teaching programs of the department. Inquiries are invited from all qualified appliances. cants. Applicants should possess a Ph.D. in microbiology or a related area, have postdoctoral research experience, and demonstrated research ability. Women and minority and demonstrated research about, women and minority candidates are encouraged to apply. Applicants should submit curriculum vitae by 1 February 1988, and arrange to have three letters of reference sent to: Dr. William C. Ghiorse, Chairman—Search Committee, Department of Microbiology, Stocking Hall, Cornell University, Ithaca, NY 14853. Cornell University is an Equal Opportunity/Affirmative Action Employer.

SOUTHWEST STATE UNIVERSITY

MICROBIOLOGIST, assistant or associate profes-MCROBIOLOGIS1, assistant or associate professor, tenure-track position to begin September 1988. Commitment to undergraduate-level teaching of general and diagnostic microbiology, general biology, and other courses of choice. Excellent teaching and research facilities. Ph.D. preferred. Send résumé, transcripts, and three letters of recommendation to: Director of Personnel Services, Southwest State University, Marshall, MN 56258. Screening will begin 8 January 1988.
Southwest State University is an Equal Opportunity Edu-

cator and Employer.

MOLECULAR BIOLOGIST OR ORGANIC/PEPTIDE CHEMIST

A new neuroscience company in West Chester, Pennsylvania, seeks an organic chemist with experience in peptide synthesis and purification. Also seeking a molecular biologist with experience in molecular and cellular neurobiology. Send curriculum vitae and a list of references to:

> Cephalon Inc. 101 Brandywine Parkway Suite 127 West Chester, PA 19380

NEUROBIOLOGIST SENIOR POSITION (ASSOCIATE OR PROFESSOR LEVEL)

The rapidly growing Division of Neurobiology in the Department of Anatomy and Cell Biology seeks an established investigator working at the cellular/molecular level on issues of neural development and/or function. Applicants using contemporary approaches are particularly encouraged to apply. Excellent resources are available in the department including tissue culture, EM, video microscopy and image analysis.

Significant set-up funds and space are committed to this search. The successful candidate will play a major role in the future growth of research and graduate training. Contribution to team-taught medical neuroscience course is expected.

Please send curriculum vitae, statement of research plans, curriculum vitae and names of four individuals who would write recommendation letters to: M. T. Shipley, Ph.D., Chairman, Neurobiology Search Committee, University of Cincinnati, Anatomy and Cell Biology Department, 231 Bethesda Avenue, M.L. #521, Cincinnati, OH 45267–0521.

POSTDOCTORAL FELLOW FOR PLANT BIOCHEMISTRY/ENZYMOLOGY

Applications are invited for a postdoctoral fellowship to work in an interdisciplinary team (chemistry/biology) studying biosynthesis in plants, including the isolation of enzymes from protoplasts. Applicants should have experience in protoplast isolation, enzyme purification, and be familiar with techniques in plant molecular biology. Please send curriculum vitae and arrange for three letters of reference to be sent to: Dr. A. I. Scott, Center for Biological NMR, Department of Chemistry, Texas A&M University, College Station, TX 77843–3255. An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

PHYSICAL AND BIOLOGICAL OCEANOGRAPHY FACULTY POSITIONS DEPARTMENT OF OCEANOGRAPHY OLD DOMINION UNIVERSITY

The Department of Oceanography at Old Dominion University invites applications for positions in physical and biological oceanography. The Department has been selected by the University for special emphasis and we expect significant growth in faculty and facilities during

the next few years.

PHYSICAL OCEANOGRAPHER: This position is the third of five Slover Chairs and is fully funded by the Slover Endowment. The successful applicant will be expected to have made significant contributions to oceanographic research documented in publications as well as have experience in program funding. The interests of the physical oceanography group center on the role of continental margin physical processes in global biogeo-chemical cycles, on dynamics of mid-ocean gyres, and on

larger scale air-sea interaction and upper ocean dynamics.

BIOLOGICAL OCEANOGRAPHER: We are seeking an oceanographer interested in global scale biological oceanographic processes and preferably in the role of the ocean boundaries in such process. We would like to attract someone with interests in biological-physical relationships and in the use of remote sensing. The successful candidate should have active research interests compatible with the Department and the growing physical oceanography group supported by the Slover Endowment.

Applicants must have earned doctorates. Salary is negotiable depending on qualifications. To apply, please send a résumé, names of three references, and a brief statement of research interests by 29 January 1988 to: Search Committee, Department of Oceanography, Old Dominion University, Norfolk, VA 23529-

Old Dominion University is an Affirmative Action/Equal Opportunity Institution

PLANT MOLECULAR BIOLOGIST. Applications are invited for a tenure-track position, with emphasis in development and/or cell culture. Initial responsibilities include participation in a core course for majors on genetics and development, developing a general educa-tion course in Science and Technology, and additional courses in area of specialization such as molecular plant biology, developmental biology, biochemical and cellular methods. Ph.D. strongly preferred. Send letters of appli-cation outlining research interests, curriculum vitae, and names and addresses of three references before 15 January 1988 to: Dr. Jack Harclerode, Department of Biology, Bucknell University, Lewisburg, PA 17837. Telephone: 717-524-1961. Applications from women and members of minority groups are encouraged.

PLANT MOLECULAR BIOLOGIST. The State University of New York College of Environmental Science and Forestry (SUNY-CESF) is seeking applications for a tenure-track position as part of a major college-wide thrust in Biotechnology in Forestry. The successful candidate must have demonstrated expertise in higher plant recombinant-DNA techniques and research interests in such areas as plant growth and development, plant-microbe interactions, or the bioconversion of lignocellu-lose. He or she will be expected to develop a strong research program and teach courses in molecular biology and recombinant techniques. Minimal qualifications in-clude a Ph.D. and postdoctoral experience. Rank and salary will be commensurate with experience and qualifications. Send: curriculum vitae, a statement of research interests, and names, addresses and telephone numbers of three references by 1 January 1988 to: Dr. Fredrick Valentine, Chairman, Biotechnology Search Committee, Faculty of Environmental and Forest Biology, SUNY-CESF, Syracuse, NY 13210; telephone: 315-

470-6790. SUNY-CESF is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available July 1988 in molecular biology with specific application to immunologic disease. Salary: \$18,000 per year. Send curriculum vitae and three references to: Dr. M. E. Gershwin, University of California at Davis, Division of Clinical Immunology, TB192, Davis, CA 95616.

POSITIONS OPEN

PLANT BIOLOGIST

Applications are invited for a tenure-track position as plant biologist at the assistant or associate professor level. Qualifications include a Ph.D. and postdoctoral experience in plant biology, preferably in plant molecular biology, molecular genetics, or evolutionary biology. A background in plant systematics would be desirable. The successful applicant will be expected to establish a vigorous independent research program which will complement ongoing programs in molecular and developmental biology and/or evolutionary biology in the Department. While the position is available immediately, time constraints of the search process will likely delay its filling. In accordance with Canadian immigration regulations, preference will be given to Canadian citizens or permanent resident

at the time of application.

Interested applicants should forward curriculum vitae, together with a statement of their research and teaching experience and interest, and arrange to have three letters

of reference send to:

Dr. H. B. Fackrell Head, Department of Biological Sciences University of Windsor Windsor, Ontario N9B 3P4, Canada Telephone: 519-253-4232, extension 2697

Deadline date (subject to filling the post) is 1 April 1988.

POSTDOCTORAL ASSOCIATE

POSTDOCTORAL POSITION available to study translational control during early Xenopus development or targeted protein degradation using injected Xenopus oocytes. Experience in biochemistry/molecular biology required. Send curriculum vitae and three letters of reference to: Dr. Joel D. Richter, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. An Equal Opportunity/Affirmative Action Employer M/F/H.

POSTDOCTORAL ASSOCIATE available immediately to study the cellular mediators of acquired antituberculous immunity within the chronically infected mouse lung. Experience in cloning and cellular immunol-

ogy is desirable.

The Trudeau Institute is a private, not-for-profit basic medical research institution located on the shore of Lower Saranac Lake and 10 miles from Lake Placid, New York. Subsidized housing and liberal fringe benefits are available

Send curriculum vitae and names of three references to:

> Dr. Frank M. Collins Trudeau Institute P.O. Box 59 Saranac Lake, NY 12983

POSTDOCTORAL FELLOW. Molecular biology of cell adhesion and morphogenesis. Use of the trans-genic mouse system to study developmental aspects of cell adhesion protein-receptor interaction. Unique approach to study of morphogenesis. Will train; however, experience in molecular biology is desirable. Salary based on experience. Contact: **Dr. Robert Klebe, Department** of Cellular and Structural Biology, University of Texas Health Science Center, San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284.

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION—Two postdoctoral positions will be available in 1988 to study the following aspects of bacterial cell division. (i) The association of oriC DNA with the E. coli cell envelope, and its artion of *broc DNA* with the *E. ton* cen envelope, and its relation to chromosome segregation; (ii) the organization and function of the *minB* locus, a complex genetic locus responsible for minicell formation in minicell mutants of *E. coli*, with emphasis on its role in the normal cell division process. A combination of molecular genetic, biochemical and—where indicated—morphological approaches will be used. Send curriculum vitae, copies of representative publications and names of three references to: Dr. Lawrence Rothfield, Department of Microbiology, University of Connecticut Health Center, Farmington, CT 06032. An Equal Opportunity Affirmative Action Employer

Post-Doctoral Fellowships in Cellular and Molecular Biology

Two temporary post-doctoral fellowships are available at the Hagedorn Research Laboratory in Gentofte, Denmark.

Hagedorn Research Laboratory is a basic research institute in the Nordisk Insulinlaboratorium foundation and constitute together with the Steno Memorial Hospital a WHO Collaborating Center for Training and Research in the Pathogenesis of Diabetes Mellitus. The major research areas are studies on the growth, function and differentiation of pancreatic islet cells and immunological and molecular aspects of the etiology and pathogenesis of insulin-dependent diabetes mellitus. The staff is about 20 scientists and the laboratory has all contemporary equipment. It is situated about 5 miles north of Copenhagen.

One of the candidates is expected to participate in ongoing research on the mechanisms of growth and regeneration of pancreatic beta-cells. The other in molecular cloning of diabetes related antigens. Both should have experience in one or more of the following topics: growth factors, oncogenes, gene transfection, DNA library screening, molecular cloning and cell culture.

Applications including Curriculum Vitae, list of publications and names of referees should be sent by December 25, 1987 to:

> The Directors of Research Hagedorn Research Laboratory Niels Steensensvej 6 DK-2820 Gentofte Denmark

Further information can be obtained from Dr.scient. Jens Høiriis Nielsen, telephone: 1-680860, ext. 2428.

Nordisk Insuliniaboratorium is a foundation established by Royal Charter of 1926 comprising Hagedorn Research Laboratory, Steno Memorial Hospital, and Nordisk Gentofte A/S.

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

ELECTRON MICROSCOPIST

In consultation with the Director of Electron Microscopy, this individual will plan, organize and ensure completion of service responsibilities of the diagnostic Surgical Pathology Electron Microscopy Laboratory, as well as supervise daily activities of the technical staff. Responsibilities also include evaluating surgical specimens ultrastructurally, assisting in the definitive diagnosis of oncologic and other complex tissue biopsies, and providing instruction to medical students and pathology residents in diagnostic ultrastructure principles and procedures.

Qualified individual will possess a level of knowledge generally obtained through completion of a postgraduate degree in Cell Biology or related area and 5-7 years of progressively more responsible experience in order to interpret cell biologic aspects of various tumors and other diagnostic procedures.

Rhode Island Hospital is a 719-bed Trauma Center affiliated with the Brown University Program in Medicine. We ofter excellent benefits and competities allow Please send resume to Me

salary. Please send resume to Ms.
Lucinda Wilmot,
Employment Representative,
Rhode Island Hospital,
593 Eddy Street,
Providence, Ri 02902,
(401) 277-5337.
An Equal Opportunity/
Affirmative Action Employer.

RHODE ISLAND HOSPITAL

RESEARCH SCIENTISTS: Lasers, Spectroscopy, Medicine

The MIT Spectroscopy Laboratory has immediate openings for two Ph.D. level scientists to pursue research in applications of lasers and spectroscopy to medicine. These positions will be filled at either research staff or post-doctoral levels, with commensurate salaries, depending upon qualifications and experience. Research areas include basic studies of laser spectroscopy, irradiation and ablation of biological tissue, and development of advanced laser diagnostics, therapies, and imaging techniques. The Spectroscopy Laboratory houses a specially-equipped NIH resource center for laser medical research with state-of-the-art laser laboratories for laser biophysics, LIF and Raman spectroscopy, and picosecond spectroscopy.

Candidates with Ph.D. degrees in physics, chemistry, biophysics, biochemistry and engineering will be considered. One position is targeted for a researcher with extensive hands-on experience in designing and building laser-optical systems. The second requires experience in spectroscopy of biological systems or a related area of biomedical research. Research is interdisciplinary, and candidates must be capable of leadership and providing guidance to graduate students and undergraduates. MIT is a non-smoking environment.

Curriculum vitae and names of three references should be sent to Professor Michael S. Feld, Director, G.R. Harrison Spectroscopy Laboratory, MIT, 77 Massachusetts Avenue, Room 6-014, Cambridge, MA 02139.

MIT is an affirmative action/equal opportunity employer

A COMMUNITY AT WORK



DIRECTOR, BIOETHICS PROGRAM

The Warren Grant Magnuson Clinical Center, the research hospital of the National Institutes of Health, is seeking a Director for its Bioethics Program. Interested individuals should have in-depth knowledge, training, and broad experience in biomedical ethics, preferably in a clinical research setting. The incumbent reports to the hospital director. Primary duties include ethics consultations, reveiw of research proposals, and teaching and research on ethical issues. This position may be filled by a medical officer or non-physician with preference given to those with a Ph.D. degree. Salary is \$45,763 to \$72,500, commensurate with qualifications. In addition, physicians may qualify for a Physicians Comparability Allowance (PCA). Recently passed legislation will increase the PCA from its current limit of \$10,000 per annum to a new maximum of \$20,000 per annum.

Send resumes to: Daniel D. Cowell, M.D.

Chairman, Search Committee National Institutes of Health Building 10, Room 2C146 9000 Rockville Pike Bethesda, MD 20892

A complete position description may be obtained by writing:

Neil R. Parker CC Personnel, NIH Building 10, Room IN312 9000 Rockville Pike Bethesda, MD 20892

U.S. CITIZENSHIP REQUIRED. AN 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

NEW

MULTIDEPARTMENTAL GRADUATE PROGRAM IN CELL AND MOLECULAR BIOLOGY

GENE REGULATION

MOLECULAR GENETICS

DEVELOPMENTAL BIOLOGY

ONCOGENES AND GROWTH FACTORS

STRUCTURAL BIOLOGY

NEUROBIOLOGY

MOLECULAR VIROLOGY AND IMMUNOLOGY

BAYLOR COLLEGE OF MEDICINE has created a new graduate program of CELL AND MOLECULAR BIOLOGY stressing basic research in the above areas. Students accepted for studies leading to the Ph.D. will receive financial support. For further information contact

Dr. Savio Woo, Director Graduate Program in Cell and Molecular Biology Baylor College of Medicine One Baylor Plaza Houston, Texas 77030

Physiologist

California Biotechnology Inc., a leading biotechnology company engaged in the development of human therapeutics, is seeking an Animal Physiologist to assume responsibilities as a Scientist in our Biological Testing Department. Responsibilities will include development and management of biological assays designed to test therapeutic efficacy of recombinant proteins and peptides.

The successful candidate will have a Ph.D. in Physiology and 2 - 5 years experience in biological assays. Training and experience in endocrine, cardiovascular, or renal systems research preferred.

We offer a stimulating research environment with a competitive compensation and benefits package. Please submit your curriculum vitae with three names of references to: California Biotechnology Inc., Human Resources MF-CK, 2450 Bayshore Parkway, Mountain View, CA 94043. We are an equal opportunity employer.



Research Scientist/ Immunochemist

Integrated Ionics Inc. is a high technology company, located in the Princeton area, which specializes in state-of-the-art medical diagnostics.

We seek professionals from the diagnostics industry experienced in the development of advanced test procedures using enzymes and antibodies. Candidates should have a Ph.D. in Immunology, Clinical Chemistry, Biochemistry, or Molecular Biology together with at least two years industrial experience.

Compensation commensurate with experience. Excellent benefits. Please send resume in confidence to: Lynda Whelan, Personnel Manager, Integrated Ionics Inc., 2235 Rt. 130, Dayton, NJ 08810.

Equal opportunity employer m/f.



INTEGRATED IONICS INC.

POSTDOCTORAL ASSOCIATE

MIT Postdoctoral Position. Ph.D. or M.D. with an immunology background for project aimed at developing improved adjuvants and novel immunization systems, with particular emphasis on application to sub-unit vaccines.

Send curriculum vitae and names and phone numbers of three references to: Prof. Robert Langer, (E25-342), 77 Massachusetts Avenue, Cambridge, MA 02139.

MIT is a non-smoking environment MIT is an affirmative action/ equal opportunity employer.

A COMMUNITY AT WORK



BIOENGINEER PROCESS DEVELOPMENT SCIENTIST

Applied bioTechnology is a growing company specializing in:
• genetically engineered vaccines for the veterinary and human markets
• novel products for cancer diagnostics and therapeutics based on oncogene technology

We are currently developing a pilot plant operation and have opportunities available in the establishment of our Fermentation and Separations capabilities. Key responsibilities will include Scale-up, Process Development, Optimization, and Production of clinical lots.

We are seeking individuals with a BS/MS/PhD in Biological Engineering or Sciences, with at least 3 yrs. of relevant experience. Demonstrated expertise in mammalian cell culture preferred.

Please submit your resume or curriculum vitae to:

Applied bioTechnology, Inc.

80 Rogers Street Cambridge, MA 02142

An equal opportunity employer m/f

BRISTOL - MYERS

RESEARCH SCIENTIST ANTI-INFECTIVE MICROBIOLOGY

Bristol-Myers, Pharmaceutical Research & Development Division, is an internationally recognized leader in the research and development of innovative pharmaceutical, medical care, consumer and nutritional products. Currently, we have an exceptional opportunity for a Research Scientist – Anti-Infective Microbiology at our state-of-the-art research facility, located in Wallingford, CT.

This position requires a Ph.D in Microbiology with a strong background in microbial physiology/genetics and 1 - 3 years of postdoctoral experience. The successful candidate will participate in a program to investigate novel therapeutic targets in prokaryotes and lower eukaryotes. Modern molecular biology methods will be employed to conceive, design and test mechanism-based assays. You will also carry out mechanism of action and mechanism of resistance studies on current project compounds.

Bristol-Myers offers an excellent salary and a comprehensive benefit package including relocation assistance. For confidential consideration, forward your resume, including salary history to: Bristol-Myers Company, Pharmaceutical Research & Development Division, Department PD/SCI, PO. Box 5100, Wallingford, CT 06540. An equal opportunity employer. (Principals Only Please)

Bristol-Myers

POSTDOCTORAL POSITION available in a molecular immunology laboratory. Ongoing projects study the regulation of lymphoid specific gene expression and cell surface antigens involved in T cell activation (especially Ly6). Please send an introductory letter and curriculum vitae to:

> Dr. Al Bothwell Howard Hughes Medical Institute Yale University School of Medicine Pathology Department 310 Cedar Street New Haven, CT 06510

POSTDOCTORAL POSITION available to work with molecular biologist, biochemist, and crystallographer on structure function and specificity of normal and mutagenized lipogenic enzymes [see Biochem. J. 243, 596 (1987); Eur. J. Biochem. 165, 601 (1987)]. Experience in protein chemistry and enzymology essential; expertise in recombinant DNA methods an advantage. Salary commensurate with qualifications. Send résumé and names of references to: Human Resources Department, Children's Hospital Oakland, 747 52nd Street, Oakland, CA 94609. Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study expression of intermediate filament proteins. Prior background in molecular biological techniques preferred. Please send curriculum vitae and letters of recommendation to: Dr. P. V. Sarthy, Department of Ophthalmology, RJ-10, University of Washington, Seattle, WA 98195. University of Washington is an Affirmative Action /Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately for biochemical and spectroscopic studies of proteins associated with blue-light responses in the fungus Phycomyces. Techniques include differential spectrophotometry, FPLC, and two-dimensional gel electrophoresis. Send curriculum vitae and three letters of reference to: Dr. Edward Lipson, Department of Physics, Syracuse University, Syracuse, NY 13244–1130. Telephone: 315-423-2578. Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION

Available 1 February 1988 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 POSITIONS: Two positions are available in the Chemistry Department at Emory University applying high field NMR techniques to biological molecules for projects on peptides, proteins, oligonucleotides and vitamin B₁₂-related compounds. Modern 2D NMR techniques will be emphasized, particularly 2D heteronuclear indirect detection and isotopedirected methods. Facilities are a modified NT-360, a GN-500, and a GN-600, the latter due in 1988. Familiarity with biomolecules and/or 2D NMR techniques is strongly preferred. Send curriculum vitae and names of three references to: Dr. Luigi Marzilli or Dr. David Live, Department of Chemistry, Emory University, Atlanta, GA 30322. Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately for a microcirculatory scientist with training in intravital microscopy and microvascular hemodynamic measurements (pressure, flow, etc.). Individual will become part of a well-funded, multidisciplinary developmental biology group studying the involvement of the neural crest in development of the cardiovascular system. Contact: Dr. William F. Jackson, Department of Physiology and Endocrinology, Medical College of Georgia, Augusta, GA 30912; telephone: 404-721-3401. Equal Opportunity Employer/Affirmative Action Program.

POSTDOCTORAL POSITION available to engage in projects on G protein-mediated transmembrane signaling. Experience in molecular biology and membrane biochemistry is desirable. Start date, April 1988. Salary up to \$18,000. Applicants should send curriculum vitae, statement of research experience, and names of three persons who may be contacted for reference to: Dr. Ifeanyi J. Arinze, Department of Biochemistry, Meharry Medical College, Nashville, TN 37208.

POSTDOCTORAL POSITIONS IN PHARMA-CEUTICAL RESEARCH: (i) Membrane biophysics—fundamental studies of solute partitioning and transport in biomembranes and isolated lipid bilayers; (ii) physical organic chemistry—studies of drug (including protein) degradation mechanisms. Salary negotiable. Send curriculum vitae and three references to: B. D. Anderson, Ph.D., Department of Pharmaceutics, University of Utah, Salt Lake City, UT 84112. Deadline for applications: 15 January 1988. Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE. Position open immediately to study the interaction between rhodopsin-containing membranes and the cells of the retinal pigment epithelium, and the characterization of rhodopsin receptors on the cell. Experience in biochemistry, immunology, and cell culture is desirable. Please send curriculum vitae and the names of three references to: Dr. Edward L. Kean, Eye Research Laboratory, Room 653 Wearn Building, Case Western Reserve University, Cleveland, OH 44106.

POSTDOCTORAL POSITIONS

The Department of Pharmacology at the University of Missouri is rapidly expanding its research programs in the general area of molecular pharmacology. Several NIH-funded postdoctoral positions are now available in various laboratories as listed below

<u>Dr. David B. Bylund</u>—Classification, regulation, and molecular biology of alpha—2 adrenergic receptors.

<u>Dr. Leonard R. Forte</u>—Signal transduction mechanisms for parathyroid hormone receptor subtypes.

<u>Dr. H. D. Kim</u>—Receptor-mediated regulation of membrane transport and energetics.

<u>Dr. Shivendra</u> <u>D. Shukla</u>—Transmembrane signal transduction mechanisms in platelets involving polyphosphoinositides.

Myron L. Toews—Molecular mechanisms of adrenergic receptor regulation.

Please address inquiries, or send curriculum vitae and three letters of recommendation, to the laboratory of interest at the address below.

Department of Pharmacology School of Medicine University of Missouri-Columbia Columbia, Missouri 65212 314-882-7186



VERSITY OF MISSOURI-COLUMBI

An Affirmative Action---Equal Opportunity Employer



The Upjohn Company, a worldwide leader in Pharmaceutical research is seeking applicants for a Research Scientist position in its Drug Delivery Systems Research unit within the Pharmaceutical Research and Development Division.

The successful candidate should possess a Ph. D. in biochemistry, biophysics, or cell biology and must have experience with modern biochemical, biophysical and cell biological techniques; good oral and written communication skills is necessary; post graduate training mandatory.

Responsibilities include conducting basic research studies and in the area of transport of polar drugs (e.g., peptides, proteins) across biological barriers (epithelial/endothelial) or targeting of these agents to specific cellular sites; employ modern biochemical, biophysical and cell biological techniques in elucidating these transport and delivery processes; develop new and novel concepts for enhancing delivery of peptides/proteins based on knowledge of the physical/chemical properties and/or biochemical properties of the membranes and the drugs; demonstrate the potential of these concepts for delivery of future human and veterinary pharmaceutical products.

Upjohn offers a stimulating research environment, opportunity for career advancement, competitive salary and benefits, and relocation assistance.

Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a mix of excellent cultural, educational and recreational pursuits, including numerous lakes and a four-season climate.

For confidential consideration, please call toll free 1/800/253-8600, ext. 3-6767, (inside Michigan call collect 616/323-6767) to request an employment application be sent to you. Please refer to Ad Number 21947-F when calling.

An Equal Employment Opportunity Employer M/F Our commitment to scientific excellence continues...



THE SCIENCE RECRUITMENT "FOUR DAY CLOSE"

NOW YOU CAN SEE YOUR AD IN SCIENCE FOUR DAYS AFTER SUBMISSION

Scientific Recruiters can now advertise positions almost as soon as the need arises. Instead of reserving space a month or more in advance, you can now place your ad four days before the magazine mailing date. Science is mailed on the cover date.

Film (right-reading, emulsion face down) or full camera ready art and insertion order must reach: Science, Short Close Desk, 1515 Broadway, New York, NY 10036 by NOON Mondays (except for legal holidays when material must reach New York by Noon Fridays). Because space is limited, the four-day close page will be reserved on a first-come, first-served basis, at a 15% premium. ¼ and ½ page ads only.

Now you don't have to wait to find the researchers you need immediately, nor must you advertise in a Sunday paper that pans a lot of sand, but not much gold. Scientific employers know that Science ads fill the job better. Now they fill it faster too.

You can call it "INSTANT RECRUITMENT."

For further information, telephone Ed. Keller, Recruitment Advertising Manager, or Donna Rivera, Production Manager at Science: 212-730-1050, or write to: Science, 1515 Broadway, NY, NY 10036.

CURRENT DISTRIBUTION 160,000

METABOLISM INVESTIGATOR

Abbott Laboratories. At the forefront of scientific research and development, with a commitment \$4 billion strong. Our Pharmaceutical Products Division is forging ahead in the discovery of new treatments for a variety of medical disorders. In support of this research, we are now seeking a Ph.D. Scientist to conduct studies in our Drug Metabolism area.

Specific responsibilities include separating, quantifying and isolating drugs and metabolities contained in biological matrices. The individual should be skilled in HPLC chromatographic methods and the techniques used for the structural confirmation of unknown compounds. A knowledge of the safe and proper use of radiolabeled compounds is required. Candidates will have a Ph.D. in Biochemistry, Pharmacology or Toxicology with an organic chemistry background. Good written and oral communication skills are essential.

Rated one of the nation's five best managed companies for 1986 by Dun's Magazine, Abbott is committed to that same level of excellence in all areas. We provide an exceptional salary and benefits package, which includes profit sharing and stock retirement plan. We're located in an attractive suburban area near Lake Michigan, just 30 miles north of Chicago. For confidential consideration, send your resume with salary history to: Patricia Handy/Corporate Placement, Dept. SCI/12-11. Abbott is an Affirmative Action Employer.



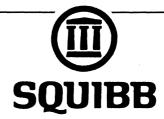
PhD Biochemistry, Chemistry or Organic Chemistry

RESEARCH INVESTIGATOR Immunoassay Method Development

E.R. Squibb & Sons is a Fortune 200 Company and an internationally recognized leader in the research, marketing and manufacture of innovative pharmaceuticals and related health care products. Currently, we have a position available in our Clinical Assay Development Department for a Research Investigator to assume responsibility for immunoassay method development.

Our successful candidate will possess a PhD in Biochemistry, Organic Chemistry, Chemistry or a related discipline along with 2 to 3 years experience in immunoassay development. Extensive experience in ElA, FlA, ELISA, and RlA method development is a prerequisite. Experience applying computer programs to statistical analysis and well-developed communication skills are necessary. A background in monoclonal antibody production and characterization and radioreceptor assays would be a significant asset.

We offer a very competitive compensation package and participation in our comprehensive benefits program. Interested candidates should submit their resume, including salary history tα E.R. Squibb & Sons, Dept. AK/E21487, P.O. Box 191, New Brunswick, NJ 08903. An equal opportunity employer.



Where science comes to life.

POSTDOCTORAL POSITIONS SYSTEMS ECOLOGY RESEARCH GROUP

ARCTIC TERRESTRIAL ECOLOGIST—Participate in research project examining ecosystem response to disturbance near Toolik Lake, Alaska. Responsibilities include coordinating field research in tussock tundra on

community composition, canopy structures, carbon balance, and production. Experience in arctic ecosystems and computer modeling desirable.

ECOSYSTEM MODELERS (three)—Two positions to participate in Toolik Lake ecosystem modeling project; expertise open but preference given to individuals with experience in arctic exceptions. uals with experience in arctic ecosystems. One position to participate in joint project with **Dr. F. Bazzaz** (Harvard University) in modeling of plant competition in response

to elevated carbon dioxide.

All positions available immediately. Send curriculum vitae and names of three references to: Systems Ecology Research Group, San Diego State University, San Diego, CA 92182, attention: Dr. John D. Tenhunen, 619-229-2862 for terrestrial ecologist and attention: Dr. James F. Reynolds, 619-229-2887 for modeling positions. An Equal Opportunity/Affirmative Action Employer, Title IX.

POSTDOCTORAL RESEARCH ASSOCIATE position located in Clemson, South Carolina (temporary: not to exceed 2 years), available to study habitat selection not to exceed 2 years), available to study nabitat selection of southeastern fox squirrels and southern flying squirrels. Applicants should have a recent Ph.D. in wildlife biology, ecology, or mammalogy. Must have a strong quantitative background to assess squirrel abundance in relation to habitat and ability to develop a comprehensive program of field studies and interact with land managers. program of field studies and interact with land managers. Starting salary is \$27,172 per annum. Forest Service is an Equal Opportunity Employer. Women and minorities are encouraged to apply. Send letter of application, complete résumé, and names of three references to: Dr. Michael R. Lennart, USDA Forest Service, Southeastern Forest Experiment Station, Department of Forestry, Clemson University, Clemson, SC 29634–1003.

POSTDOCTORAL RESEARCH ASSOCIATE POSITION

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.

RESEARCH ASSOCIATE POSITION available immediately for individual holding doctorate degree or equivalent in biomedical sciences or veterinary medicine (M.D., Ph.D., or D.V.M.), and having substantial theoretical and practical training as well as demonstrated proficiency in mammalian cell, bacterial, and retroviral research; demonstrated proficiency in working with haz-ardous biologic agents under carefully controlled labora-tory conditions, and in supervising others under these conditions. Involves direct participation in hazardous biomedical research with infectious AIDS virus (HIV, HTLV-III/LAV). One year of training in microbiology and retrovirology research is required. Basic salary: \$23,200 per annum. Qualified applicants should make inquiry to: Alabama State Employment Service, 1816 8th Avenue, North, Birmingham, AL 35203. Attention: E. R. Robinson, Alabama Job Order #453856.

RESEARCH DIRECTOR

Rhone Merieux, Inc., the USA Subsidiary of Rhone Merieux, Lyon, France seeks outstanding applicants with a minimum of a Ph.D. in microbiology and at least 5 years of industrial experience in the research and licensyears of industrial experience in the research and incenting of various vaccine/diagnostic products for animal health. Successful candidate would lead scientific team devoted to development of products utilizing expertise in cell culture, virology, bacteriology, rDNA, and vector research. Strong organizational, communication, and leadership skills are required. Submit résumé and salary history to: General Manager, Rhone Merieux, Inc., 117 Rowe Road, Athens, GA 30601.

POSITIONS OPEN

POSTGRADUATE POSITIONS AT AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY—ATSDR is a new agency of the Public Health Service based in Atlanta created to implement healthrelated section of laws that protect the public from hazardous wastes or environmental spills of hazardous substances. Program areas include toxicological profiles, substances. Program areas include toxicological profiles, exposure and disease registries, and health effects research. Immediate openings for those with experience in epidemiology, toxicology, and related areas. Degree within last 3 years preferred; U.S. citizenship or PRA status required. Contact: Postgraduate Program/ ATSDR, University Programs Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831–0117; telephone: 615-576-3190.

PROTEIN CHEMIST

The Worcester Foundation is seeking an experienced protein chemist to be the primary operator of a Protein Chemistry Facility now being established. This core facility will be equipped to provide protein sequencing, peptide synthesis, amino acid analysis, and peptide mapping services to our faculty. The position offers the opportunity to contribute to a diverse set of projects studying protein structure and function, including cyto-skeletal proteins, receptors, signal transduction proteins, mammalian pheromones, and several enzyme systems and proteins found in the nervous and male reproductive systems. Applicants should have extensive protein chemsystems. Applicants should have extensive protein chemi-istry experience and some familiarity with a gas-phase sequencer and peptide synthesizer. Salary and level of appointment of this non-faculty position will be com-mensurate with experience. The Worcester Foundation is a nonprofit, basic research institute located on a 100-acre wooded campus 40 miles west of Boston. Send curriculum vitae, a statement of career objective, and three letters of reference to: Protein Chemist, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. An Equal Opportunity/Affirmative Action Employer M/F/H.



REPRODUCTIVE BIOCHEMISTRY

The Division of Reproductive Biology and Endocrinology is seeking a Ph.D. **BIOCHEMIST** with special interests for immunology, protein chemistry and extensive experience in the development of hormone assay techniques. This is a faculty level position with the title of research assistant professor. The successful candidate will be expected to develop an independent, grant-supported research program.

Please send curriculum vitae to:

Richard Blackwell, Ph.D., M.D. Department of Obstetrics and Gynecology Division of Reproductive Biology and Endocrinology The University of Alabama at Birmingham University Station Birmingham, AL 35294

Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE/STAFF SCIENTIST: Long-term position exists for an experienced molecular biologist to study regulation of genes associated with growth and differentiation in skin-derived cells. Experience with Northern analysis essential: familiarity with Western and Southern blotting and with cell culture desirable. Located in a new research facility in downtown Boston. Curriculum vitae to: Dr. B. Gilchrest, Human Nutrition Research Center at Tufts University, 711
Washington Street, Boston, MA 02111. An Affirmative Action/Equal Opportunity Employer.

RESEARCH TECHNICIAN

Positions are available in the laboratory of macromolecular analysis at Albert Einstein College of Medicine. Responsibilities will be to operate modern peptide sequencing or mass spectrometer equipment in a new laboratory equipped with sequencers, amino acid analyzers, peptide synthesizers and a mass spectrometer. Qualifications should include a B.S. degree and experience with this equipment. Send applications to: Dr. E. Richard Stanley, Search Committee for Peptide Facility, Developmental Biology and Cancer, Albert Einstein College of Medicine of Yeshiva University, Bronx, NY 10461. An Equal Opportunity Employer M/F.

POSITIONS OPEN



United States

RESEARCH MOLECULAR BIOLOGIST, Plant Molecular Genetics Laboratory, Beltsville, Maryland. ARS has two positions available: (i) to conduct research exploring the regulation of genes and gene constructs in specific tissues during soybean development; (ii) to specific tissues during soybean development; (ii) to identify and characterize proteins and genes involved in the resistance response of small grains to pathogen invasion. Must be U.S. citizen. Salary is commensurate with experience (\$32,567 to \$38,727 per annum). Send applications (SF-171) and transcripts to: Sandra Thomas, USDA, ARS, Personnel Operations Branch, Building 003, Room 123, BARC-West, Beltsville, MD 20705, or telephone: 301-344-3953. Applications should be marked (i) 8E002, (ii) 8E003 and received by 15 January 1988. An Equal Employment Opportunity Employer.

RESEARCH SCIENTIST II BLOOD/SUSPENSION RHEOLOGY

Responsibilities: Perform microrheology experiments with RBC suspensions; develop mathematical models of flow through vessel junctions; prepare research proposals and manuscripts; supervise undergraduate and graduate flow through vessel junctions; prepare research proposals and manuscripts; supervise undergraduate and graduate student research projects. Minimum qualifications: Ph.D. in area related to blood or suspension rheology or master's degree in related area plus 3 years of research experience; experience in video fluorescence microscopy helpful. Salary: \$24,200 to \$37,680; starting salary not to exceed \$24,200. This is a grant-funded position with funding expected through 1991. Application deadline: 8 January 1988. Non-citizens must include references addresses satus. Send résumé (please include references, addresses and phone numbers) directly to: Professor Russell T. Carr, Chemical Engineering, Kingsbury Hall, University of New Hampshire (UNH), Durham, NH 03824. UNH is an Affirmative Action/Equal Opportunity Employer.

SENIOR TECHNICIAN position available to study structure-function relationships and regulation of expression of lipogenic enzymes. Methods in use include enzyme and peptide isolation and characterization, DNA cloning and sequencing, site-directed mutagenesis and gene synthesis. Send résumé and names of references to: Human Resources Department, Children's Hospital Oakland, 747 52nd Street, Oakland, CA 94609. Equal Opportunity Employer.

CALIFORNIA STATE UNIVERSITY, HAYWARD (CSUH)

The Department of Biological Sciences invites applications for TWO TENURE-TRACK POSITIONS at the assistant professor level, subject to budgetary approval, beginning September 1988. Ph.D. required. Expected to teach undergraduate and graduate courses, to develop an independently funded research program, and to direct

graduate students in M.S. degree program.

MOLECULAR / CELLULAR / DEVELOPMEN-TAL BIOLOGIST. Teaching and research interests in molecular, cellular, and developmental biology of plants preferred. Expected to develop and teach courses in plant cell and tissue culture and plant cell biology. Active participation in certificate program in biotechnology.

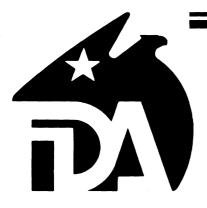
MEDICAL MICROBIOLOGIST. Teaching and

MEDICAL MICROBIOLOGIST. Teaching and research interests in medical microbiology and public health preferred. Teach general and medical microbiology, medical mycology, and/or medical parasitology. Active participation in biomedical laboratory program.

CSUH seeks to create a stimulating atmosphere for its ethnically diverse faculty and student population. Women and minorities are especially encouraged to apply. Interested individuals should send a copy of their curriculum vitae, a brief summary of their teaching and research goals and arrange to have three letters of reference sent to: Chairman, Department of Biological Sciences, California State University, Hayward, Hayward, CA 94542. To be assured of full consideration, applications should be received by 30 January 1988.

The University is an Fanal Opportunity/Affirmative Ac-

The University is an Equal Opportunity/Affirmative Action/Handicapped Employer.



You can make a difference!

FDA SEEKS A DIRECTOR, CENTER FOR FOOD SAFETY AND APPLIED NUTRITION

The Food and Drug Administration invites applications for the position of Director, Center for Food Safety and Applied Nutrition. The Director is responsible for planning and implementing scientific research and regulatory activities to provide maximum support to the Food and Drug Administration's programs to protect the public health of the Nation as it may be impaired by foods and cosmetics. This is a Civil Service position in the Senior Executive Service with a salary range of \$64,700 to \$75,500 per year.

This is an exciting and challenging opportunity for an individual who has (1) academic-training or a combination of training and experience equivalent to an advanced degree with specialization in biological or physical science; (2) experience which demonstrates the ability to plan and provide leadership for, and direct research or develop standards on safety, composition and quality of foods, food additives, color additives, or cosmetics; (3) and the executive qualifications necessary to lead and direct a staff of over 800 scientific, technical and support personnel.

An SF-171, Application for Federal Employment, should be sent to **Division of Human Resources Management (HFA-408) Food and Drug Administration, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20857.** For further information, please call Jeyelene M. Wood collect on (301) 443-1755. To ensure full consideration, application should be received by December 31, 1987.

This position may also be filled by current Commissioned Officers of the U.S. Public Health Service or by former Commissioned Officers willing to rejoin the Corps.

Food and Drug Administration

An 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.

STAFF MEMBER, ASSISTANT PROFESSOR-The Helene W. Toolan Institute is recruiting two positions in the area of tumor biology, cell, and/or molecular biology. These individuals will have a joint appointment, assistant professor, in the Basic Science Programs at the Albany Medical Center. Applicants will be expected to have or establish a peer-reviewed research program, and participate in graduate student training. Send applications and three references to: The Helene W. Toolan Institute for Medical Research, 110 Hospital Drive, Bennington, VT 05201.

VICE PRESIDENT SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY

A Vice President is sought who will provide strong, imaginative leadership for an institution dedicated to excellence. The position of chief academic officer provides an opportunity, in association with the faculty, to shape the future of progressive engineering and science programs. Current enrollment totals about 2,000 undergraduate and graduate students in 13 departments. The students' average ACT score of 24 ranks in the 95th percentile of entering freshmen on the national level. The school rates in the top 25 for the percentage of its graduates continuing on to earn Ph.D. degrees in the empirical sciences. High quality research is carried out in the departments and in research institutes concerned with atmospheric and earth sciences and in the technology of materials. The campus is located at the edge of the Black Hills of South Dakota, with a moderate climate,

clean air, and pleasant living conditions.

The candidate should have proven administrative abilities and an earned doctorate in a field such as engineering, science, business or industrial management, higher education administration, or other appropriate field. Strong academic and research experience is highly desirable. Send your résumé and a letter indicating your goals to: Dr. H. D. Orville, Chairman, Search Committee, South Dakota School of Mines and Technology, 501 East St. Joseph Street, Rapid City, SD 57701-3995. Applications must be postmarked by 15 February 1988. The South Dakota School of Mines and Technology is an Equal Opportunity Employer.

PROGRAM

GRADUATE PROGRAM UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE

The Department of Anatomy and Cell Biology seeks doctoral students to join an exciting graduate program with competitive stipends. The faculty are well funded with interests in cell biology, molecular genetics, developmental biology and the neurosciences. For further information, please contact: Dr. Peter J. Stambrook, Director, Graduate Studies, Department of Anatomy and Cell Biology, University of Cincinnati College of Medicine, Cincinnati, OH 45267–0521.

MISCELLANEOUS

NEW SOCIETY FORMED NATIONAL ASSOCIATION
FOR
SCIENCE, TECHNOLOGY AND
SOCIETY (STS)

A new professional society will be inaugurated on 5 February 1988 at the Third National Technological Literacy Conference in Washington, DC.

It offers scientists and engineers concerned with moral, ethical, and societal issues raised by technology and science, an opportunity to join their peers in the human-ities, religion, and social sciences, in government policy, in public interest groups, in precollege science teaching, for discussions, debates and learning around the critical STS issues of our times. The new Association also expects to serve as an umbrella group for many existing subcommunities within the STS field.

For information on membership and the Conference

NASTS 128 Willard Building University Park, PA 16802

MISCELLANEOUS

WORKSHOP ON MORPHOMETRICS IN SYSTEMATIC BIOLOGY Sponsored by the National Science Foundation 16 to 28 May 1988 Ann Arbor, Michigan

Workshop will survey diverse innovations in image acquisition and processing, geometric data extraction, and morphometric statistical analyses as they contribute to systematic and evolutionary inference. Workshop will include lectures, demonstrations and practicum sessions. Travel costs and residential expenses of twenty selected participants will be paid upon request.

Details and application forms from:

Morphometrics Workshop
Museums of Paleontology and Zoology
University of Michigan
Ann Arbor, MI 48109

ASSISTANTSHIPS

GRADUATE TRAINING PROGRAM IN NEU-ROSCIENCE—The Neuroscience Program at The Milton S. Hershey Medical Center of The Pennsylvania State University has assistantships available in August 1988. This interdepartmental program is designed to confer a Ph.D. degree with a major in neuroscience after 4 years of study. Participating faculty have established research programs in molecular biology of the nervous system, programs in molecular biology of the nervous system, neurophysiology, neuroendocrinology, behavioral science, neuropharmacology, neurovirology, and cerebral blood flow and metabolism. Interested candidates are invited to apply to: Dr. Robert Page, Chairman, Neuroscience Program, The Milton S. Hershey Medical Center, The Pennsylvania State University, P.O. Box 850, Hershey, PA 17033. An Equal Opportunity/ Affirmative Action Employer.

TRAINING PROGRAM

GRADUATE RESEARCH ASSISTANTSHIPS AND POSTDOCTORAL RESEARCH ASSOCIATESHIPS available through the Nitrogen Availability Program at Michigan State University. The Program is directed by an interdisciplinary group of twelve faculty in Departments of Biochamica. fram is directed by an interdisciplinary group of twelve faculty in Departments of Biochemistry, Botany/Plant Pathology, Chemistry, Crop/Soil Sciences, Genetics, Mi-crobiology, and The MSU-DOE Plant Research Labora-tory. The Program fosters innnovative interdisciplinary tory. The Program fosters innnovative interdisciplinary research emphasizing biotechnological approaches to nitrogen availability to plants: biological nitrogen fixation, denitrification, and ureolysis. (Doctoral programs through departments listed above.) Competitive stipends/starting salaries. Candidates with strong potential for basic research, and degrees/interests in the disciplines listed above or molecular biology should contact: Dr. Kenneth Nadler, NAP Director, Botany and Plant Pathology Department, Michigan State University, East Lansing, MI 48824. Telephone: 517-353-5167.

POSTDOCTORAL TRAINING THE JOHNS HOPKINS UNIVERSITY SCHOOL OF HYGIENE AND PUBLIC HEALTH SOME CURRENT AREAS OF RESEARCH INTEREST

Toxicological Sciences (Chemical Carcinogenesis, Lung Toxicology, Xenobiotic Metabolism, Immunotoxicology, Metal Toxicology).

Environmental Neurobiology (Neurotransmitter Receptors, Biosensors, Ototoxic Agents).

Environmental Chemistry (Photochemistry, Bioaccumulation, Excited States).

Genetic Toxicology (DNA Repair, Glycoprotein Synthesis, Molecular Immunology).

Fellows are supported by a NIEHS Training Center Grant for up to a maximum of 3 years. Participating Departments are Environmental Health Sciences and Biochemistry. Individuals with U.S. citizenship or permanent residence should send curriculum vitae and three manent residence should send curriculum vitae and three letters of reference to: Zoltan Annau, Ph.D., Department of Environmental Health Sciences, The Johns Hopkins University, School of Hygiene and Public Health, 615 North Wolfe, Baltimore, MD 21205. An Affirmative Action Employer

COURSE

MOLECULAR ENDOCRINOLOGY AND TECHNIQUES FOR HORMONE ACTION 21 to 26 February 1988

This course will consist of lectures in methodology with comprehensive syllabus covering receptors, gene transcription, mRNA and protein synthesis, recombinant DNA, protein hormones, and cyclic nucleotides. Co-directors: W. T. Schrader and B. W. O'Malley Fee: \$365 (\$245: fellows and students)

For further information contact:

Bonnie Cuthbert Department of Cell Biology Houston, Texas 77030 Telephone: 713-799-6200 Deadline-29 January 1988

FELLOWSHIPS



Syndrome Association...

ANNOUNCES....
RESEARCH GRANTS AND FELLOWSHIPS
AVAILABLE

Basic Neuroscience Clinical Studies Postdoctoral Fellowships

\$5,000 to \$25,000 \$5,000 to \$25,000 \$15,000 to \$20,000

For application write: Tourette Syndrome Association, 42-40 Bell Boulevard, Bayside, NY 11361. Letters of intent to apply due by 15 January 1988.

NUTRITION FELLOWSHIPS. Cornell University's Division of Nutritional Sciences will award a few fellowships to outstanding candidates for doctoral study in nutritional biochemistry and human nutrition. Annual stipends, \$15,000. Persons with a strong background in biological sciences and a degree in medicine, nutrition, biochemistry, or microbiology are encouraged to apply. Write: Dr. B. A. Lewis, Graduate Field of Nutrition, Cornell University, 259 MVR, Ithaca, NY 14853. An Equal Opportunity/Affirmative Action Employer.

DOCTOR OF ARTS IN BIOLOGICAL SCIENCES: FELLOWSHIPS are available for persons interested in the D.A. degree in biological sciences. The program stresses preparation for undergraduate teaching at college and universities. Applicants should hold a master's degree in some area of biology. Deadline for receipt of application is 1 March 1988. For more information contact: Chairman, D.A. Committee, Department of Biological Sciences and the Sect. University. ment of Biological Sciences, Idaho State University, Pocatello, ID 83209. An Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIPS LINEBERGER CANCER RESEARCH CENTER UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL

The Lineberger Cancer Research Center of the University of North Carolina (UNC) at Chapel Hill will have openings in 1988 for persons completing graduate studies to train with highly qualified investigators in molecularly oriented research in virology, chemical carcinogenesis, biochemical pharmacology, cell biology, and immunology. Training includes areas such as regulation of gene expression, DNA replication, mutagenesis, molecular enzymology, control of cellular proliferation, growth factors immunogenesics protein phasphorylation, DNA and RNA viruses, and combined programs utilizing a broad range of contemporary technology. Unique resources and core facilities housed in the Lineberger Center and strong interdisciplinary orientation enhance training. Candidates must be U.S. citizens or permanent residents. Write for brochure and application, sending brief statement of interests to: Director, Cancer Research Center, Lineberger Cancer Research Center, CB# 7295, Room 102, Chapel Hill, NC 27514. UNC's Cancer Research Center is an Affirmative Action/ Equal Opportunity Employer.

HAGEDORN RESEARCH LABORATORY

Director of Research

Hagedorn Research Laboratory has an opening for a Director of Research.

The Hagedorn Research Laboratory, a separate entity in the Nordisk Insulinlaboratorium foundation, is a basic research institute, primarily dedicated to perform research within etiology and pathogenesis of diabetes mellitus, functioning in close contact and collaboration with the Steno Memorial Hospital.

Together with the Steno Memorial Hospital, the Hagedorn Research Laboratory is designated a WHO Collaborating Center for Training and Research in Diabetes Mellitus.

The Hagedorn Research Laboratory employs 12 research associates, and they together with visiting scientists, post-doctoral fellows, graduate students and technical staff, bring the staff up to a total of approx. 55. The Hagedorn Research Laboratory is headed jointly by two Directors of Research.

The research activities are at present focused on

- the molecular biology and autoimmune phenomena in the development of insulin-dependent diabetes mellitus, and
- isolation and characterization of peptides and proteins involved in the regulation of growth and function of the endocrine pancreas.

Modern equipment e.g. peptide synthesizer, micro sequencer, fluorescence activated cell sorter and laboratory space of 1500 m² including BL2 facilities form the basis for utilization of advanced techniques within molecular genetics, biochemistry, cell biology and physiology.

The research is mainly supported by the Nordisk Insulinlaboratorium and by grants from a.o. National Institutes of Health, Juvenile Diabetes Foundation, as well as national research councils.

Applicants should have independent laboratory experience within one or more disciplines related to molecular biology and have published in leading scientific journals.

Experience in supervision of pre- and postdoctoral fellows as well as in collaboration with other research groups is preferable. Furthermore, the position involves organization of symposia and courses.

Applications will be evaluated by a scientific committee. Accordingly, applicants are kindly requested to indicate their 8-10 most important papers.

Applications including Curriculum Vitae and references should be sent by January 31, 1988 to:

Nordisk Insulinlaboratorium Foundation Niels Steensensvej 1 DK-2820 Gentofte DENMARK

Marked: "Director of Research"

Further information about the position including the laboratory's Annual Report describing the research activities can be obtained from:

Bruno Hansen, Director of Research Hagedorn Research Laboratory Niels Steensensvej 6 DK-2820 Gentofte Denmark Telephone: (1) 68 08 60, ext. 2400.

The Hagedorn Research Laboratory is located in beautiful surroundings in a residential area in Gentofte, 5 miles north of the center of Copenhagen.

Nordisk Insulinlaboratorium is a foundation established by Royal Charter of 1926 comprising Hagedorn Research Laboratory, Steno Memorial Hospital, and Nordisk Gentofte A/S.

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.

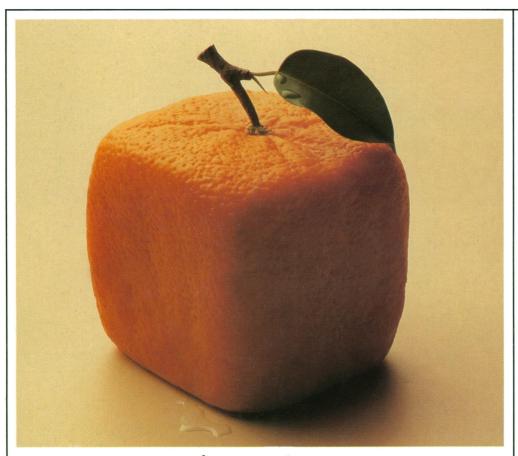
The mandatory qualifications are: (1) meet the minimum educational requirements for Medical Officer, GS-602, or Health Scientist Administrator, GS-601 (or equivalent combination of experience and education), as defined in the U.S. Office of Personnel Management Handbook X-118, Qualification Standards 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.



NATIONAL INSTITUTES OF HEALTH





Amino Acid Analysis. Not just results...the right results... HP AminoQuant.

Square oranges? You can see it's not quite right. But in amino acid analysis, it's been difficult to tell what is right. At last you can be sure with AminoQuant, the new amino acid analyzer from Hewlett-Packard. Its results meet today's stringent demands for precision and accuracy at a level consistent with the delicacy and significance of your work.

The AminoQuant amino acid analyzer only takes $1 \mu l$ of hydrolysate to precisely quantitate primary and secondary amino acids of most importance to you—even down to the sub-picomole level!

In addition to its remarkable resolution and precision, the Amino-Quant analyzer makes the process faster and simpler by fully automating derivatization, sample injection, analysis and reporting.

Detailed research and rigorous customer site testing allow us to warrant an exceptional set of performance specifications. And it's not just a promise. At installation, we verify that your system, in fact, meets that set of specifications. The specially designed reagents, column and necessary methodology are all provided with the AminoQuant analyzer.

HP's AminoQuant sets a new standard of performance for today's demanding and challenging era of biochemical research. Make it *your* standard.

For more information, call the HP office listed in your telephone directory white pages and ask for an analytical products representative. Or write to Hewlett-Packard Analytical Group, 1820 Embarcadero Rd., Palo Alto, CA 94303.

