

North America. I consider it an important source and tool for any zooarcheologist, faunal analyst, Quaternary paleoclimatologist, or micromammalian paleontologist interested in the geographic area it covers.

C. S. CHURCHER
Department of Zoology,
University of Toronto,
Ontario, Canada M5S 1A1

Books Received

BASIC Programming for Chemists. As Introduction. Peter C. Jurs, Thomas L. Isenhour, and Charles L. Wilkins. Wiley-Interscience, New York, 1987. xii, 313 pp., illus. \$34.95.

Behavior, Cognition, and Motivation. G. Mitchell and J. Erwin, Eds. Liss, New York, 1987. xii, 296 pp. \$100. Comparative Primate Biology, vol. 2B.

Bereavement. Studies of Grief in Adult Life. Colin Murray Parkes. 2nd ed. International Universities Press, Madison, CT, 1987. 265 pp., illus. \$30.

Beyondism. Religion from Science. Raymond B. Cattell. Praeger (Greenwood), Westport, CT, 1987. x, 323 pp. \$41.95.

Bioreaction Engineering. Reactions Involving Microorganisms and Cells. Vol. 1, Fundamentals, Thermodynamics, Formal Kinetics, Idealized Reactor Types and Operation Modes. Karl Schügerl. Wiley, New York, 1987. x, 238 pp., illus. \$74.95. Translated from the German edition (Frankfurt am Main, 1985) by Valerie Cottrell.

A Century of Nitrogen Fixation Research. Present Status and Future Prospects. F. J. Bergersen and J. R. Postgate, Eds. The Royal Society, London, 1987. vi, 231 pp., illus. £45. *Philosophical Transactions of the Royal Society of London* series B, vol. 317. From a meeting, London, U.K., Oct. 1986.

Chaotic Vibrations. An Introduction for Applied Scientists and Engineers. Francis C. Moon. Wiley-Interscience, New York, 1987. xviii, 309 pp., illus. \$39.95.

Chemical Synthesis in Molecular Biology. Biological Macromolecules with Natural and Modified Monomer Units. H. Blöcker, R. Frank, and H.-J. Fritz, Eds. VCH, New York, 1987. x, 222 pp., illus. Paper, \$65. GBF Monographs, vol. 8. Based on a symposium, Braunschweig, F.R.G., Sept. 1984.

Child Abuse and Its Consequences. Observational Approaches. Rachel Calam and Cristina Franchi. Cambridge University Press. New York, 1987. xii, 226 pp. \$49.50; paper, \$12.95.

Children Who Remember Previous Lives. A Question of Reincarnation. Ian Stevenson. University Press of Virginia, Charlottesville, VA, 1987. xiv, 354 pp. \$35; paper, \$14.95.

Ecology and Productivity of an African Wetland System. The Kafue Flats, Zambia. G. A. Ellenbroek. Junk, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xiv, 267 pp., illus. \$125. Geobotany, vol. 9.

Education, Industry and Technology. D. J. Waddington, Ed. Published for ICSU Press by Pergamon, Elmsford, NY, 1987. xviii, 365 pp. \$39; paper, \$19.95. Science and Technology Education and Future Human Needs, vol. 3. Based on a conference, Bangalore, India, Aug. 1985.

Electronic Instruments and Measurement Techniques. F. F. Mazda. Cambridge University Press, New York, 1987. viii, 312 pp., illus. \$69.50.

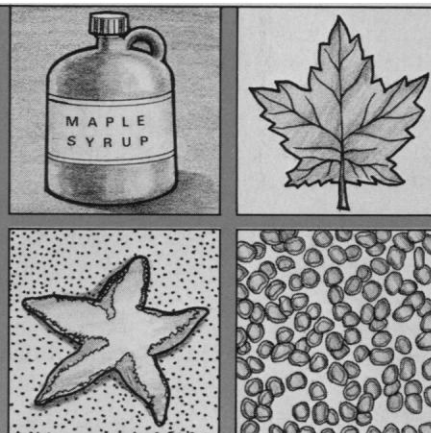
Elementary Processes in Hydrogen-Helium Plasmas. Cross Sections and Reaction Rate Coefficients. R. K. Janev *et al.* Springer-Verlag, New York, 1987. viii, 326 pp., illus. \$69. Springer Series on Atoms and Plasmas, vol. 4.

Elements of Solid State Physics. H. Y. Fan. Wiley-Interscience, New York, 1987. xii, 211 pp. \$34.95.

The Encyclopedia of Structural Geology and Plate Tectonics. Carl K. Seyfert, Ed. Van Nostrand Reinhold, New York, 1987. xiv, 876 pp., illus. \$89.95. Encyclopedia of Earth Sciences, vol. 10.

Environmental Effects of North Sea Oil and Gas Developments. J. P. Hartley and R. B. Clark, Eds. The Royal Society, London, 1987. viii, 217 pp., illus. £40. From a meeting, London, Feb. 1986.

(Continued on page 1228)



Why researchers prefer the Wescor vapor pressure osmometer.

If your work requires determination of osmolality, there are basically two methods you can use—freezing point depression or vapor pressure depression. Aside from the fact that the Wescor vapor pressure osmometer (VPO) employs the most up-to-date technology, it has many other advantages over the freezing point depression method:

- The VPO does not require alteration of the physical state of the specimen—freezing point depression does.
- The VPO can be calibrated to accept sample volumes as small as 2 microliters.
- The VPO accepts any biological sample, including all body fluids and complex specimens such as tissue samples.
- The VPO avoids measurement artifacts that arise in the freezing point method due to elevated viscosity, particulate matter, inhomogeneities, and other physical characteristics of the sample.
- The VPO offers superior reliability because it is basically an electronic rather than a mechanical instrument.



If your work concerns studies of fluid and electrolyte balance in any form of life, it will pay to investigate the vapor pressure osmometer. We think you'll agree with those who already use the VPO—and prefer it.

Contact Wescor, Inc., 459 South Main Street, Logan, UT 84321 USA. (801) 752-6011 or (800) 453-2725. Telex 4930393 WESC UI

WESCOR®

Innovative instrumentation since 1970.

When it comes to protein separations...

Finally, versatile protein chromatography.

There's no law that says that protein chromatography systems have to be narrow-minded. That's why we designed our Series 400 HRLC™ (High Resolution Liquid Chromatography) protein systems to perform an extraordinarily wide range of protein separations — both preparative and analytical. Look the field over, but you won't find any systems that can match the flexibility of our Series 400 HRLC instruments.

■ **Corrosion-free construction.** A new solvent delivery system provides

a corrosion-resistant solvent delivery path. And that goes a long way toward protecting your investment in a Series 400 system!

■ **Choice of flow rates.** Optional pump configurations (with titanium heads) offer flow rates of 10 ml/min or 40 ml/min. The unique Soft-Start™ pump is included.

■ **Wide range of operating pressures.** Unlike many protein chromatography systems, Series 400 HRLC protein systems handle a full range of operating pressures. As a result, the system can perform every type of separation, from gel filtration to reversed phase.

■ **Easy operation.** Bio-Rad's IBM-based chromatography data station collects and displays up to two channels of data, performs sophisticated data manipulation, simplifies methods development, and provides complete control of your system.

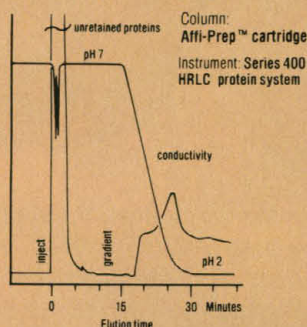
■ **Applications kits.** A full line of applications kits such as the High Performance Microanalysis Kit and High Performance

Affinity Chromatography Kit tailor the system to your applications needs.

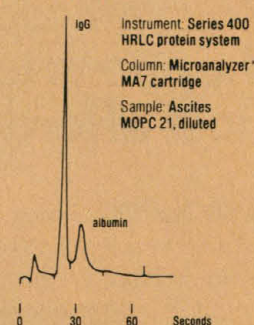
■ **It's the Chemistry that Counts.** Other companies may have protein chromatography systems. But none come close to providing you with so many chemistries — affinity, immunoaffinity, hydroxylapatite, hydrophobic interaction, ion exchange, and of course, reversed phase and gel filtration.

Contact us today for an in-depth evaluation of your protein separation needs.

Elution of human hemoglobin A(HbA) from Affi-Prep™ 10 Mab cartridge



Very rapid separation of the components of MOPC21 ascites fluid



BIO-RAD

**Chemical
Division**

1414 Harbour Way South
Richmond, CA 94804
(415) 232-7000
800-843-1412

Also in Rockville Centre, NY; Hornsby, Australia; Vienna, Austria; Mississauga, Canada; Watford, England; Munich, Germany; Hong Kong; Milan, Italy; Tokyo, Japan; Utrecht, The Netherlands; and Glattbrugg, Switzerland.

Circle No. 93 on Readers' Service Card

It's the Chemistry that Counts.™



The easiest and fastest way to synthesize peptides also happens to be the most affordable.

Meet the MilliGen 9000 Series.

Now you can realize all the advantages of the latest Fmoc synthesis methods coupled with the convenience of programmable automation. At a price that puts peptide synthesis within the reach of even the smaller facility.

Optimized Fmoc chemistry simplifies synthesis and eliminates HF.

In contrast to earlier batchwise techniques which rely on the differential acid lability of protecting groups, the new continuous flow MilliGen instruments use a mild orthogonal protecting scheme. Preactivated amino acid esters simplify protocols and instrumentation. Deprotection with mild base solutions replaces potentially damaging repetitive acid treatments. And final side chain deprotection and peptide-resin cleavage is achieved with TFA, rather than hazardous HF. A choice of peptide linkage agents lets you easily generate free peptide acids, amides or fully protected peptides.

The faster route to purer peptides.

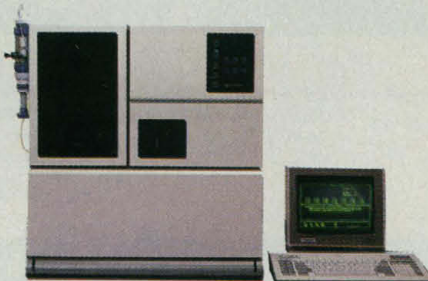
MilliGen's combination of straightforward, reliable Waters™ fluidics and innovative continuous flow methodology delivers high yields of high quality crude peptides. For standard protocols, total cycle times are less than an hour, and no double coupling is required. Post-synthesis procedures are fast, simple and safe. Syntheses are easily scaleable from 0.1 to 5.0 mmol, just by increasing reaction column diameter and pump flow rates.

Continuous flow operation minimizes reagent usage and greatly simplifies and speeds up production of peptide analogues. In addition, a built-in UV spectrometer provides a

real-time monitor of system performance. An integral IBM® compatible computer works with MilliGen Express-Peptide™ software to take the guesswork out of reagent calculation, to control instrument operation and to give you complete documentation of your synthesis.

Select the MilliGen instrument that meets your needs and budget. The fully automated MilliGen 9050 Pep-Synthesizer™ provides unattended coupling of up to 72 amino acids. The economical MilliGen 9020 requires manual injection of amino acids, and can be easily upgraded to automatic injection should your needs change.

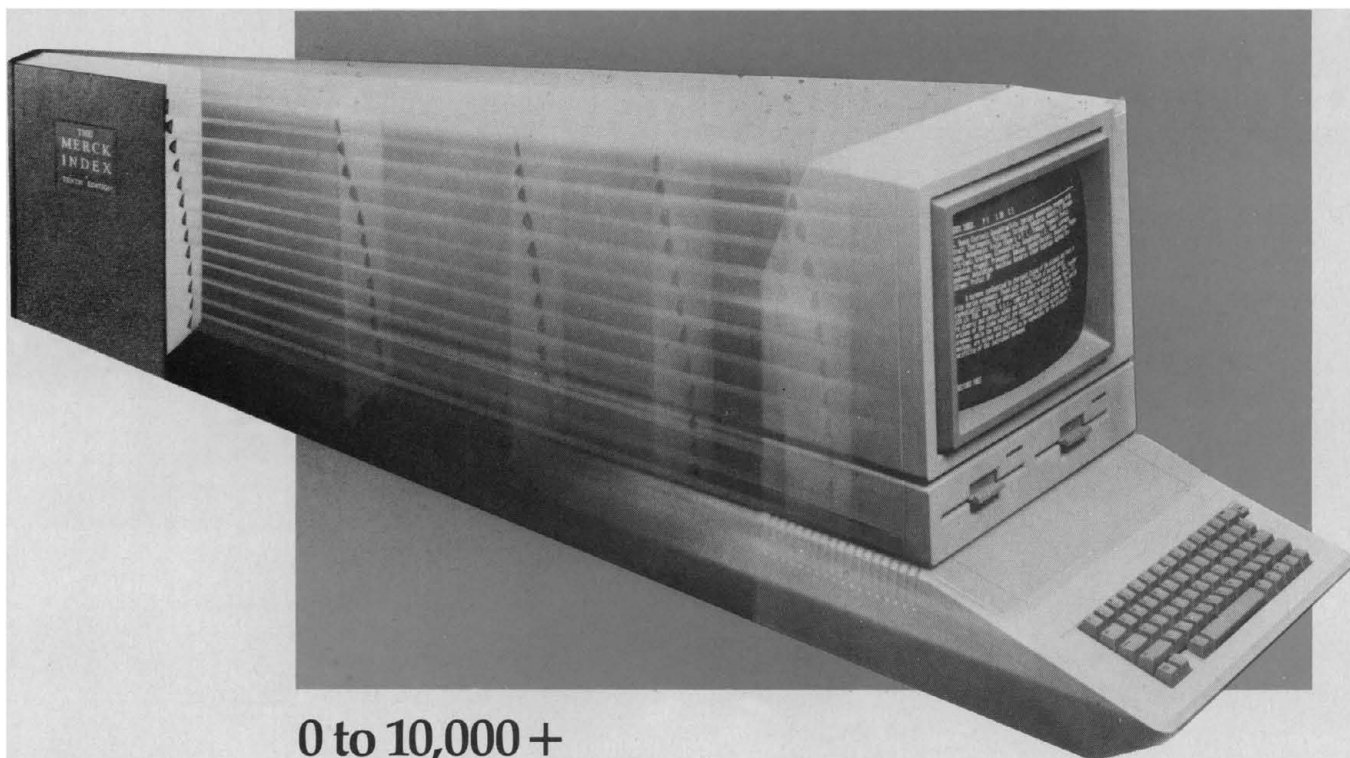
To find out more, circle the Reader Service Card. Or call toll-free (800) 872-0071; in Massachusetts, (617) 275-5208.



MilliGen

Division of MILLIPORE

Circle No. 20 on Readers' Service Card



0 to 10,000 +
in milliseconds

THE MERCK INDEX ONLINE[†]

**Instant access to the most widely used
chemical/biomedical encyclopedia in the world**

With THE MERCK INDEX ONLINE, retrieve pertinent information directly, instantly, on over 30,000 chemical, drug, and biological substances. Search for groups of compounds related by physical or chemical properties or pharmacological activity. Select records by patent assignees or trademark ownership.

Over 10,000 monographs, some not yet in print, contain information on physical and chemical properties, chemical names, trademarks, molecular formulae, literature references, toxicity data, and medical, veterinary, and commercial uses.

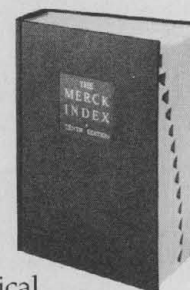
Semi-annual updates provide a current and convenient reference source for chemists, biologists, researchers, writers, and students.

The ideal companion to THE MERCK INDEX ONLINE:
THE MERCK INDEX (10th Edition, 1983)

To order your copy, send a check or money order for \$28.50, payable to Merck & Co., Inc., to Professional Handbooks Dept., Merck & Co., Inc., P.O. Box 2000, Rahway, NJ 07065-0901.

[†]THE MERCK INDEX ONLINE is a mark of Merck & Co., Inc.

Merck & Co., Inc., a research-intensive company, has published THE MERCK INDEX as a non-profit service to the scientific and medical communities since 1889.



THE MERCK INDEX ONLINE

Available through: BRS (800) 345-4BRS
CIS (800) CIS-USER
Questel (800) 424-9600
And now, DIALOG (800) 3-DIALOG

Circle No. 94 on Readers' Service Card

WILD Stereomicroscopes and Macroscopes...

for all your observation and documentation requirements

Our WILD line of quality stereomicroscopes, macroscopes and photomicrographic systems offers versatility and fatigue free viewing that is unmatched in the field.

The WILD M3 Series Stereomicroscopes, with 3-step, 5-step or 1:6 zoom magnification changer, have interchangeable drive housings that permit both biaxial stereoscopic viewing and uniaxial imaging for distortion-free photomicrography. Ideal for protracted general laboratory work.

The WILD M5A/M5APO models offer 4-step magnification, M5A with achromat objective for standard applications, M5APO with WILD's exclusive apochromatic main objective for the finest in stereoscopic resolution for observation and photodocumentation.

The M7A and M7S Zoom Stereos are research grade instruments with superb definition and flatness of field.

The M7S allows on-axis imaging for photomicrography, measurement and polarized light applications.

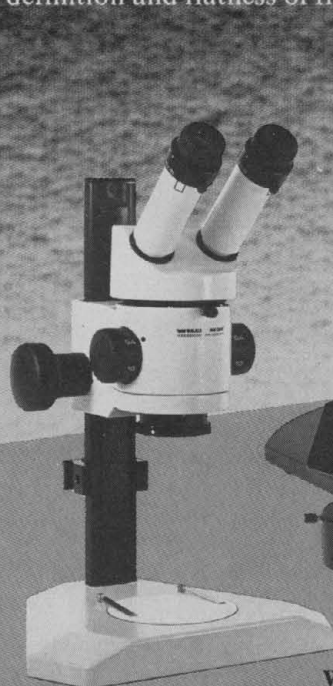
The M8 is the top of the line zoom stereomicroscope with a large 1:8 zoom range. A unique achromatic plano objective guarantees color fidelity, high resolution and excellent field flatness.

The WILD M400 photomacroscope is a fully automated system for photomacrography. It features a macrozoom objective and a built-in electronic shutter and incorporates an automatic camera system for film formats from 35mm to 4" x 5". Magnifications in the film plane range from 1x to 64x.

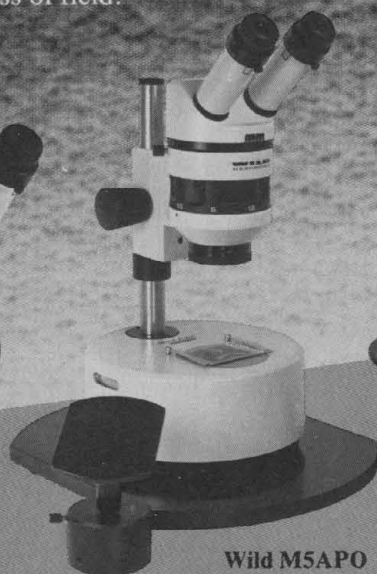
The WILD M420 macroscope is a versatile instrument for extended binocular observation and simultaneous documentation.

The macrozoom objective allows for effortless, precise framing of subject, and the trinocular head's photo port accepts all of the WILD MPS photosystems or a closed circuit TV system. The modular design makes the M420 most versatile over the range from 4x to 256x.

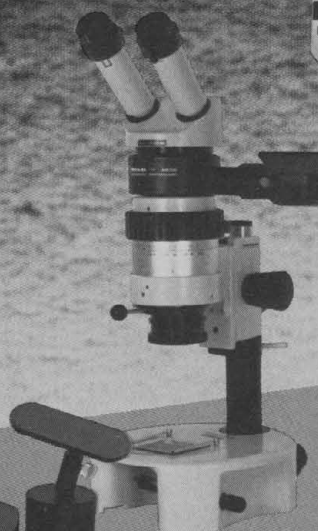
To stay one step beyond the field in stereomicroscopy... stay in touch with E. Leitz Inc., Rockleigh, NJ 07647. (201) 767-1100.



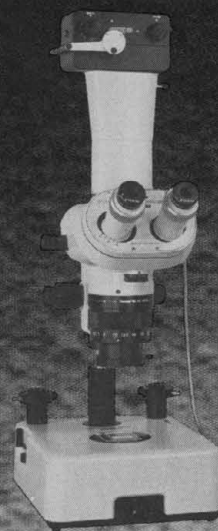
Wild M3C



Wild M5APO
with arm rests



Wild M7S
with drawing tube

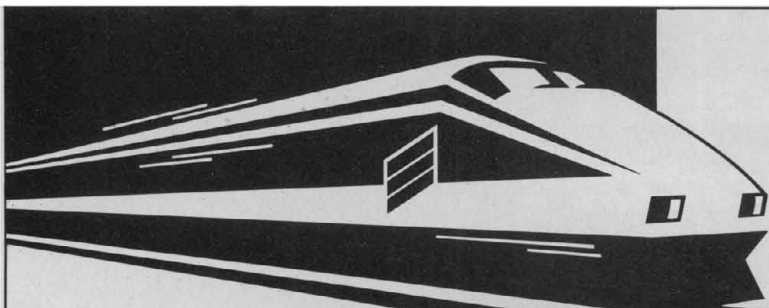


Wild M400
with Photoautomat



Wild M8 on
pillar stand





**Take the fast track
to searching scientific
information online:**

STN Express™ and STN International®

Literature searching picks up speed

Access to scientific literature became more rapid with the arrival of abstracting and indexing services, such as *CHEMICAL ABSTRACTS*. Search time was decreased still further with the introduction of online systems. But now...

STN is your ticket to more efficient online access

STN International is a hub of scientific databases, allowing information to flow from many of the world's best producers to you. And we've just made it easier, faster, more efficient to search STN, **through your own personal computer and our STN Express software.**

STN Express is designed especially for the IBM PC and 100% compatible personal computers. It turns these computers into effective search terminals with autodial, autologon, guided search, graphics display of chemical structures, **offline text and structure query preparation**, text and graphics transcript capture and printing, and many other features to speed and simplify your use of STN International and its world of scientific databases.

STN Express provides access to databases with timely and pertinent information about chemistry, engineering, materials, environmental concerns, biotechnology, drugs, superconductivity, food, analytical techniques, energy, polymers, and much more!

STN Express will be available in the second quarter 1988 for only \$595 per copy.



Quantity and academic discounts are available. **Send for more information today, and you'll get a FREE package consisting of STN Mentor: STN Express Overview disks demonstrating text and structure searching and helpful documentation.** You'll quickly see the value of searching STN International using STN Express.

Circle No. 12 on Readers' Service Card

YES! Please send me the following packages when available in 1988:

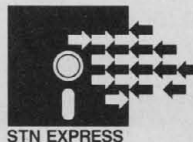
- ☐ More about STN International and STN Express software for fast and easy searching of scientific databases.
- ☐ My FREE package, STN Mentor: STN Express Overview, for IBM PC and 100% compatible personal computers.

Name _____

Address _____

Telephone _____

Mail to STN International, Dept. 36687
c/o Chemical Abstracts Service
P.O. Box 02228
Columbus, OH 43202 U.S.A.
Phone: (614) 421-3731 or
1-800-848-6538
(ask for Customer Service).



The First Preparative DNA Transilluminator!



Until now, when it came to preparative DNA electrophoresis, researchers turned to 366nm longwave transilluminators to reduce photodamage, but sacrificed sensitivity. Today there's a solution.

FOTODYNE presents FOTO/PREP I. The first innovative transilluminator to offer the sensitivity of 300nm midrange UV, with the kind of protection previously provided only by 366nm UV sources.

The key? A unique sensitivity control device. In the analytical mode it provides the nanogram level sensitivity distinguishing all FOTODYNE 300nm DNA transilluminators. Switch to the preparative mode, and a 2000bp band containing **less than 10 nanograms** of DNA can be visualized for cutting.

Circle No. 166 on Readers' Service Card

Call 1-800-DNA-FOTO

FOTODYNE, INC.
16700 W. Victor Road

New Berlin, Wisconsin 53151-4131 U.S.A.

☎ 414-785-7000

TELEX 260127

FAX 414-785-7013

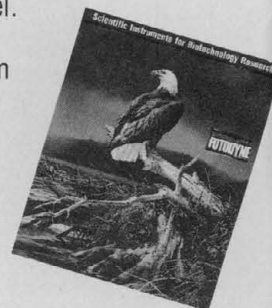


More importantly, the gel can be exposed **as long as 20 minutes** with little or no detectable photonicking damage!

FOTO/PREP I comes with a replaceable UV transparent protective sheet, so gels can be cut directly on its surface without damaging the UV glass. The molded, UV blocking cover can be raised from 0° to 90° to allow easy access to the gel.

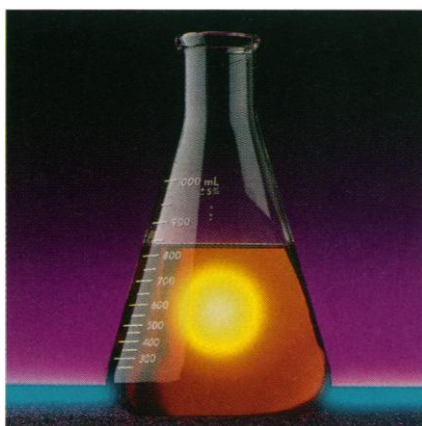
FOTO/PREP I. Available today, only from FOTODYNE. The leader you rely on for innovative advancements in DNA analysis instrumentation.

For more information call or write us. And ask for our free new catalog.



FOTODYNE
INCORPORATED

DIALOG. THINK OF IT AS A CATALYST.



Dialog puts ideas in motion. It's the force that changes the way you look at problems and solutions. Maybe even previous hypotheses.

We're the largest online knowledgebank in the world. Our databases have the chemical property, toxicity, regulatory and patent information you need.

We have chemical substance, substructure and identification information online. Dialog also offers other databases covering molecular formulae, ring data and properties.

But what really sets Dialog apart is how thoroughly we cover so many differ-

ent industries from chemistry to agriculture to biotechnology. We can make a big difference when a project demands more than chemical information. Since it's all on one service, you'll have what you need, quickly and easily.

With Dialog you get more than in-depth information. You get quality service and training.

We're reasonable, too. All you pay for is the time you spend using Dialog. There is no minimum usage requirement.

So when you need a catalyst to get ideas going, or to push them further, turn to Dialog. And watch how your mind reacts.

Ask your librarian or information center if your company has DIALOG. If not call 800-3-DIALOG (800-334-2564) today. Or write to us at, 3460 Hillview Ave., Palo Alto, CA 94304.

DIALOG[®] INFORMATION SERVICES, INC.
A SUBSIDIARY OF LOCKHEED CORP

The world's largest online knowledgebank.

800-3-DIALOG

Dialog is a service mark of Dialog Services Inc. Reg. U.S. Patent and Trademark office.

Circle No. 38 on Readers' Service Card





Open the books after school.

It is the best of times. Dickens. Dickinson. Dostoevski. Dumas. There's a way to go before Zola is tucked into place, but that's okay. Book by book the shelves will fill, and you'll be in business.

Retiring from one job to start another one isn't everyone's dream. But it's always been yours. And years ago when you first set your goals, TIAA-CREF helped you find the best way to meet them. Now you've got what you want, a lifetime retirement income, and your own bookstore.

And with the words, *Open for Business*, you'll begin what could be the most satisfying chapters in your life.



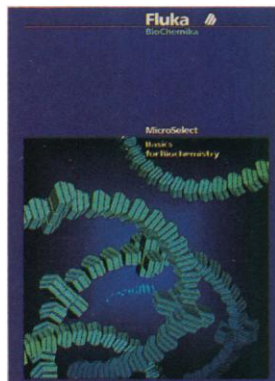
Ensuring the future
for those who shape it.sm

TIAA-CREF can help your dreams come to life. For more complete information, including charges and expenses, call 1 800 842-2733 for a prospectus. Read the prospectus carefully before you invest or send money.



MicroSelect. Let Tests Talk

Ask for your free copy of the Fluka MicroSelect brochure.



This new Fluka product line has been specially designed for applications in life sciences. That means: Products with an impeccable, high quality meeting very stringent requirements in biochemistry and biology.

At Fluka, we have devised rigorous analytical tests that guarantee only top quality products earn the MicroSelect label. The MicroSelect tests include:

- Solubility and homogeneity tests
- Filter test: filtration of a test solution through a Millipore® 0.45 µm filter; no residue allowed
- UV test: limited UV absorbance at biochemically relevant wavelengths
- pH test: pH of a test solution within defined limits

Every batch of each MicroSelect product has passed these requirements in addition to the

routine quality control analyses, such as assay, trace analyses, physical characteristics and specific determinations.

MicroSelect products are handled with extreme care and packed in special laboratories under controlled conditions. The product line includes:

- Ammonium, calcium, cesium, lithium, magnesium, potassium and sodium salts
- Biological buffers, buffer components and standard buffer substances
- Precipitation and denaturation reagents
- Chelators and complexing agents
- Antioxidants
- Density gradient centrifugation chemicals
- Amino acids

Sel.-e2

Fluka 
BioChemika

Switzerland: Fluka Chemie AG, Industriestrasse 25, CH-9470 Buchs/Switzerland, Telephone 085 6 95 11, Telex 85 52 82, Telefax 085 6 54 49

Germany: Fluka Feinchemikalien GmbH, Messerschmittstraße 17, D-7910 Neu-Ulm, Telephone (07 31) 7 01 11, Telex 7 12 316 fluka d, Telefax (07 31) 7 50 44

Great Britain: Fluka Chemicals Ltd, Peakdale Road, Glossop, Derbyshire SK13 9XE, Telephone 04574-62518, Linkline 0800-26 23 00, Telex 669960 fluka g, Telefax 04574-4307

USA: Fluka Chemical Corp., 980 South Second Street, Ronkonkoma, New York 11779, Phone 516-467-0980, Telex 96-7807, Fax 516-467-0663

Circle No. 131 on Readers' Service Card

Thromboxane B₂ and 6-Keto-Prostaglandin F_{1α} Direct [¹²⁵I] RIA Kits

- No Extraction •
- Negligible Cross-Reactivity •
- Sensitivity 0.5pg/tube • Binding 55% •
- Total Counts (40,000 CPM) •
- Precalibrated Individual Human Serum
Lyophilized Standards •
- Simple 3 Pipetting Steps •
- Incubation 2 hrs. or Overnight at 2-8° C •
- PEG - 2nd Antibody Separation Method •

BIOTECX LABORATORIES, INC.
P.O. Box 1421, Friendswood, Texas 77546
(713) 482-2672, Toll Free: (300) 631-0600
Telex (ITT): 4998324 ITDI UI, Fax: (713) 482-1070



Circle No. 225 on Reader Service Card

Metering Pumps With Variable Speed Drives

Model "V" variable speed pumps are the newest and most versatile of FMI's extensive line of valveless metering pumps, featuring:

- Flow rates of a few microliters to over 2000 ml/min.
- Stroke rate controller provides stepless adjustment of stroke rate from 0 to 1800 strokes/min.
- Optional control accessory enables pump to respond to 4-20 mA signals generated by computer, flow meter, pressure transducer or other control instrumentation.
- Handle liquids, slurries and gases.
- Interchangeable chemically resistant pump heads.

**Available from stock
for immediate shipment!**



CALL TOLL-FREE
800-223-3388
IN NY STATE
516-922-6050



FLUID METERING, INC.

P.O. BOX 179, 29 ORCHARD STREET, OYSTER BAY, NY 11771
TELEX 5101001281

For information circle reader service number 130.

SCIENCE

Posters

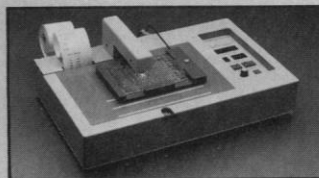
The following posters of Science covers are available:

- 9 February 1979, Locomotive in China;
 - 27 July 1979, Lightning over St. Louis;
 - 29 July 1983, Cheetah and cub;
 - 2 December 1983, Snowshoe hare;
 - 23 December 1983, Cathedral window/DNA molecule;
 - 26 September 1986, Neurons in motor cortex;
 - 28 November 1986, Byrd Glacier, Antarctica
- Combination of space covers in scroll format: 1 June 1979, 23 November 1979, 10 April 1981.

Price is \$5.50 each (prepaid)

Write to AAAS Department POST,
1333 H Street, NW, Washington,
D.C. 20005.

ANALYZING ONLY A HANDFUL OF EIA PLATES PER WEEK?



Use your hands to save thousands on a Microplate Reader.

The Model 700 Manual Microplate Reader is easy to use and measures 96 wells in less than 5 minutes. Its optics are as accurate as the most expensive instruments, and it offers all these features for only \$2885:

- A built-in printer that uses easy-to-find plain paper.
- An RS-232C computer interface.
- Electronic sensing of well location. Read wells in any sequence.
- Filter changing without tools in seconds.
- Built-in thresholding. Partitions absorbance readings into \pm matrix.
- Operates accurately to absorbances greater than 3.000.

Evaluate without risk on our 60 day trial. Satisfaction guaranteed or your money back.

Cambridge Technology, Inc.

23 ELM STREET, WATERTOWN, MA 02172 U.S.A. (617) 923-1181

SigmaPlot™ software creates publication quality charts & graphs for the scientist.

IBM PC and Compatibles

NEW
VERSION 3.1



Create professional graphs for scientific publications, poster sessions, or lectures. Unlike business software, Sigma-Plot contains essential scientific features.

- Automatic error bars
- Multiple graphs per page
- 65,000 points per dataset

- Greek and math symbols
- Polynomial curve fitting, and more...
- Accepts ASCII and DIF data files from Lotus, dBase, or your own programs. Support for Hewlett-Packard and compatible plotters, HP Laserjets, and selected dot matrix printers. Money-back guarantee.

Free brochure **800-874-1888**
In CA **415-924-8640**
FAX: 415-924-2850 / Telex: 4931977
In Europe: R.J.A. Handers, Germany
Ph #02101/666268

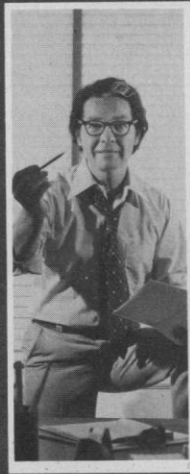
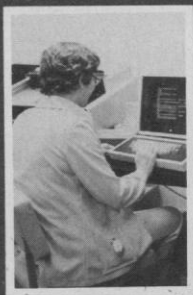
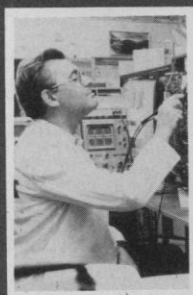
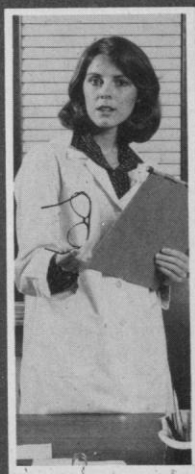
Jandel
SCIENTIFIC

"Microcomputer Tools
for the Scientist"

■ 65 Koch Road ■ Corte Madera, CA 94925

Circle No. 147 on Readers' Service Card

What do these people have in common?



They all use Sci-Mate Software

Whatever your profession--researcher, medical professional, teacher, librarian, technician--**Sci-Mate** Software is for you. That's because it's flexible enough to manage information the way you want to manage it...to meet your very unique information needs. Which is why so many people--professionals like yourself--have **Sci-Mate** in common.

With the Manager, Searcher, Editor, and MARC-Mate™ you can now store, retrieve, sort, and edit virtually any type of textual information in whatever format you

choose. **Ideal for patient records, field notes, and case notes.** To learn more about the Sci-Mate Software System, and its many professional applications, call:

**800-523-4092 or
215-386-0100,
extension 1418.**

ISI® Software

3501 Market Street, S-29-5270
Philadelphia, PA 19104 U.S.A.

Circle No. 180 on Readers' Service Card

Pure & Simple

They say that variety is the spice of life. But the variety of life insurance products in the marketplace today poses a bewildering prospect—even for the most educated customer. Which is why it's refreshing to know that there's still a kind of life insurance whose appeal lays in its simplicity.

Not only is AAAS Term Life the purest kind of life insurance available, it is also the least expensive. And now that Group Rates have been cut another 15% effective 4/1/88 (they were also cut 10% last October), AAAS Term Life is an even better bargain.

If you're interested in applying for coverage from \$15,000 up to \$240,000, and wish to request generous protection for your family, too, the next step is simple.

Contact the Administrator, AAAS Group Insurance Program, 1255 23rd Street, N.W., Suite 300, Washington, D.C. 20037, or call toll-free (800) 424-9883 (in Washington, D.C. call 296-8030). They will be pleased to answer any questions you may have about this valuable member benefit.

Products & Materials

Electrophoresis Power Supply

The model 4000 is a 4000-V power supply. It was designed for high-voltage electrophoretic techniques such as sequencing, isoelectric focusing, isotachopheresis, and immobile pH gradient electrophoresis. Output can vary from 0 to 4000 V, 0 to 200 mA, and 0 to 200 W. The power supply operates in any of three modes—constant power, constant voltage, or constant current—with automatic crossover among modes. Outputs of all three modes are displayed simultaneously. The model 4000 can power two electrophoresis units in parallel. Its safety features include recessed output jacks, a detector for low-level ground leakage, and a circuit that automatically shuts off the power supply when disconnected from the electrophoresis apparatus. Bethesda Research Laboratories. Circle 439.

Protein G Conjugate

GammaBind G-HRP is a horseradish peroxidase conjugate of recombinant protein G. In enzyme-linked immunosorbent assays and protein immunoblot assays, GammaBind G-HRP sensitively and specifically detects immunoglobulin G (IgG) antibodies and antibody-antigen complexes. It binds to more IgG antibodies than protein A does: it binds to all mouse and rat IgG monoclonal antibodies, all subclasses of human IgG, and the IgG of goats, sheep, cows, horses, rabbits, guinea pigs, and other mammals. GammaBind G-HRP does not cross-react with immunoglobulins M, A, E, or D, or with serum albumin. Genex. Circle 440.

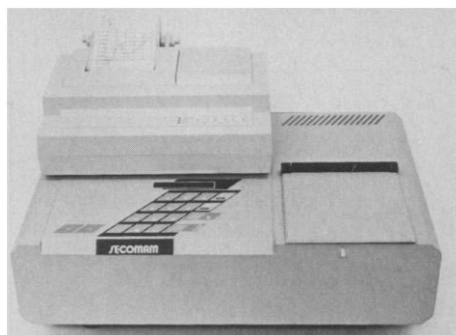
Preparative HPLC

A preparative high-performance liquid chromatograph (HPLC) with a maximum pump pressure of 200 bars is available. Its automatic pump contains two pumps within a single case. This dual pump configuration

allows pulsation-free flow between 1 and 1000 ml/min. Two operations can occur simultaneously because of the two outputs. Each column includes multiple cartridges that can be switched automatically by the microprocessor-controlled pump. As many as eight procedures, each with 99 steps and lasting 480 minutes, may be programmed. Or a remote personal computer can control the system. Compagnie Européenne d'Instrumentation (France). Circle 443.

Scanning Spectrophotometer

The S.500.I is a single-beam scanning spectrophotometer. It has a wavelength range of 330 to 900 nm. The microprocessor-driven instrument can keep 24 user-defined protocols and labels in permanent



memory. Two measurement modes, endpoint and kinetic, can be computed automatically with factor or multistandard calibration with one to five standards. An RS-232C interface allows connection of the S.500.I to a printer or computer. Less than \$3200. Secomam. Circle 438.

Graphics and Data Analysis Software

Spectra Calc is a software program that processes, displays, and plots complex x-y data. It can scale down or expand data in real time with full axis labeling, automatically determine peak values, and display as many as 20 data files at once. Also, it has a window zoom to expand or compress specific regions and an x-y cursor that measures data coordinates. Templates allow generic plot layouts to be reused for new data. Three-dimensional and exploded-view plots are possible. The user can create axis labels and define label spacing, decimal placement, and font types, sizes, and colors. The user then can add text, boxes, and lines. Spectra Calc can receive data from any remote computer or instrument equipped with a serial port, and the program can convert files to and from file formats of other programs.

Menu-driven arithmetic applications include Fourier domain smoothing, partial least squares quantitative analysis, curve fitting, multiple point polynomial baseline correction, peak table generation and integration, spectral deconvolution, spectral editing, and real-time interactive subtraction. The user can also develop applications in Array Basic. Spectra Calc operates on the IBM PC and PS/2 families of computers with a graphics adapter and a math coprocessor (for arithmetic applications). \$1290. Galactic Industries. Circle 492.

Ductless Fume Hood

The MYSTAIRES model FE-200 Ductless Fume Enclosure eliminates hazardous fumes, gases, and noxious odors by means of adsorption. A multistage filter system removes contaminants by adsorbing them onto activated carbon or onto filters designed for formaldehyde, ammonia, or acids. A motor-blower provides a minimum face velocity of 30.5 m/min. A low airflow alarm is triggered when face velocity falls below safe speeds. Heat Systems-Ultrasonics. Circle 486.

Literature

Analects is a monthly newsletter of products and techniques for DNA sequencing. Pharmacia LKB Biotechnology. Circle 450.

The *Spring Catalog Supplement* highlights life science equipment, including ion-selective electrodes, microinjection pumps, chart recorders, and miniature pH and reference electrodes. World Precision Instruments. Circle 451.

Catalog 1988 is a catalog of amino acids, reagents, biochemicals for brain research, buffers, enzyme substrates, fluorescent compounds, immunochemicals, plant growth regulators, and peptides. Research Organics. Circle 454.

The *Biomek Bulletin* is a newsletter that suggests applications and gives tips and shortcuts for the Biomek 1000 Automated Laboratory Workstation. Beckman Instruments. Circle 455.

Add the Power of Thermospray to Your LC Bench! is a 4-page color brochure that describes a benchtop dedicated liquid chromatography-mass spectroscopy system. Vestec. Circle 456.

Focus on Applications: Technical Bulletin 8025-1 describes characteristics of Moloney murine leukemia virus reverse transcriptase and supplies a protocol for using the enzyme to prepare first strand cDNA. Bethesda Research Laboratories. Circle 499.

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.

(Continued from page 1214)

Great Scientists of Old as Heretics in "The Scientific Method." C. Truesdell. University Press of Virginia, Charlottesville, VA, 1987. vi, 96 pp., illus. \$19.95. Based on lectures, 1985.

Illustrating Pascal. Donald Alcock. Cambridge University Press, New York, 1987. viii, 184 pp., illus. Spiral bound, \$12.95.

Immunologie de la Reproduction: Relation Materno-Fœtale. Reproductive Immunology; Materno-Fetal Relationship. Gérard Chaouat, Ed. Éditions de l'Institut National de la Santé et de la Recherche Médicale, Paris, 1987. xiv, 483 pp., illus. F 250. Colloque INSERM, vol. 154. From a symposium, Paris, France, Dec. 1986.

Immunopharmacology of Infectious Diseases. Vaccine Adjuvants and Modulators of Non-Specific Resistance. Jeannine A. Majde, Ed. Liss, New York, 1987. xxiv, 359 pp., illus. \$68. Progress in Leukocyte Biology, vol. 6. From a symposium, Columbia, MD, June-July 1986.

Innovative Tracks at Established Institutions for the Education of Health Personnel. An Experimental Approach to Change Relevant to Health Needs. Martin Kantrowitz *et al.* World Health Organization, Geneva, 1987. 232 pp., illus. Paper, \$23.40. WHO Offset Publication no. 101. Based on a meeting, Albuquerque, NM, Oct. 1986.

Insects and Human Society. AVI (Van Nostrand Reinhold), New York, 1987. xiv, 450 pp., illus. \$39.95.

Inside Relativity. Delo E. Mook and Thomas Vargish. Princeton University Press, Princeton, NJ, 1987. xiv, 306 pp., illus. \$30.

Integration, Coordination and Control of Multi-Sensor Robot Systems. Hugh F. Durrant-Whyte. Kluwer, Norwell, MA, 1987. xx, 236 pp., illus. \$45. Kluwer International Series in Engineering and Computer Science, vol. 36.

Integrative Neuroendocrinology. Molecular, Cellular and Clinical Aspects. S. M. McCann and R. I. Weiner, Eds. Karger, Basel, 1987. viii, 243 pp., illus. \$120. From a congress, San Francisco, CA, July 1986.

Literacy. Reading the Word and the World. Paulo Freire and Donaldo Macedo. Bergin and Garvey, South Hadley, MA, 1987. xxiv, 184 pp. \$34.95; paper, \$12.95. Critical Studies in Education Series.

The Material Culture of the Chumash Interaction Sphere. Vol. 5, Manufacturing Processes, Metrology, and Trade. Travis Hudson and Thomas C. Blackburn. Ballena, Menlo Park, CA, and Santa Barbara Museum of Natural History, Santa Barbara, CA, 1987. 358 pp., illus. \$41.95; paper, \$28.95. Ballena Press Anthropological Papers, no. 31.

Nutritional Bioavailability of Manganese. Constance Kies, Ed. American Chemical Society, Washington, DC, 1987. x, 155 pp., illus. \$39.95. ACS Symposium Series, 354. Based on a symposium, Anaheim, CA, Sept. 1986.

Patterns of Birthweights. Ruth Rice Puffer and Carlos V. Serrano. Pan American Health Organization, Washington, DC, 1987. xiv, 109 pp., illus. Paper, \$10. Scientific Publication no. 504.

The Quickening Universe. Cosmic Evolution and Human Destiny. Eugene F. Mallove. St. Martin's, New York, 1987. xx, 268 pp., illus. \$16.95. A Thomas Dunne Book.

Receptor-Receptor Interactions. A New Intramembrane Integrative Mechanism. Kjell Fuxe and Luigi F. Agnati, Eds. Plenum, New York, 1987. xviii, 561 pp., illus. \$85. Wenner-Gren International Symposium Series, vol. 48. From a symposium, Stockholm, Oct. 1986.

Thermophysical Properties of Neon, Argon, Krypton, and Xenon. V. A. Rabinovich *et al.* Theodore B. Selover, Jr., English-language edition editor. Hemisphere (Harper and Row), New York, 1987. xviii, 604 pp., illus. \$150. National Standard Reference Data Service of the USSR, vol. 10. Translated from the Russian edition (Moscow, 1976).

Twelfth International Seaweed Symposium. (Sao Paulo, Brazil, July-Aug. 1986.) Mark A. Ragan and Carolyn J. Bird, Eds. Junk, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xxviii, 590 pp., illus. \$182.50. Developments in Hydrobiology, 41.

Universe. William J. Kaufmann, III. 2nd ed. Freeman, New York, 1988. xxii, 634 pp., illus. \$36.95.

User-Oriented Computer Languages. Analysis and Design. Melvin Klerer. Macmillan, New York, 1987. xvi, 208 pp. \$34.95. Macmillan Database/Data Communications Series.

Vectors. A Survey of Molecular Cloning Vectors and Their Uses. Raymond L. Rodriguez and David T. Denhardt, Eds. Butterworths, Stoneham, MA, 1987. xiv, 578 pp., illus. \$54.95. Biotechnology.

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. **SCIENCE** reserves the right, in its discretion, to decline to publish advertisements submitted to it.

LINE CLASSIFIED ADVERTISING DEADLINES: Thursday, 10 a.m., 2 weeks prior to issue date (mailed on issue date). For deadlines for display advertising, please contact Scherago Associates.

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:

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 \times \$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

Aquatic Biologist, recent Ph.D. seeks postdoctoral or temporary research position. Has extensive experience in various aspects of culturing and bioassay of daphnids and algae. Box 80, **SCIENCE**.

Aquatic Toxicologist. Ph.D. seeking position in industrial/consulting sector. Extensive academic and professional experience. Knowledgeable in FIFRA, TSCA, and FDA GLP's and testing guidelines. Box 81, **SCIENCE**.

Biochemist, Ph.D. Principal investigator with 13-year academic experience in life sciences including monoclonal antibodies, histochemistry, immunochemistry, protein purification, enzymology, phosphoinositides, computer analysis. Proven grant and publication record. Seeking responsible academic or industrial position in Baltimore-Washington-Wilmington area. Box 83, **SCIENCE**.

POSITIONS WANTED

Biologist/Zoologist, Ph.D. with broad academic training, 17 years of teaching experience all levels/field. Biology in USA and Africa; extensive publications seeking teaching and/or research position. Box 84, **SCIENCE**.

B.S. in chemistry, 10 years industrial organic and analytical experience seeks permanent assignment writing technical software. Box 85, **SCIENCE**.

Foreign Pharmacologist. Ph.D. Classical pharmacology training. Broad research experience in autonomic and systemic pharmacology. Experienced visiting scientist. Curriculum vitae, 8 years of undergraduate and postgraduate teaching. Good scientific editor. Good interpersonal and communication skills. Seeks academic research/teaching or industrial research opportunities. Box 86, **SCIENCE**.

Immunologist, Ph.D. Research and development scientist with extensive background in hybridomas, monoclonal antibodies, targeted chemotherapy in cancer, and large-scale tissue culture, seeks group leader/project director position in academic/industrial laboratory. Outstanding worker with excellent credentials. Box 74, **SCIENCE**.

M.S. Biochemistry and Organic Chemistry and over 18 years of academic and industrial research experience in production and characterization of monoclonal and polyclonal antibodies, RIA and ELISA analysis of proteins and haptens, enzymology, pharmacology, analytical methods development, publications. Telephone: 215-968-0483 after 6 p.m. EST. Box 75, **SCIENCE**.

Retrovirologist, Ph.D. AIDS researcher with publications and experience in virology/cell biology, antiviral agents and some molecular biology. Currently interested in the diversity of HIV-1 isolates versus pathogenesis. Seeks academic/industrial position in Washington, D.C. area. Box 87, **SCIENCE**.

Scientific Data Analysis and Presentation. Semi-retired Ph.D. (physiology), with over 30 years of experience developing and programming both routine and novel analysis methods; many refereed publications. Lower rates for interesting projects. Box 65, **SCIENCE**.

POSITIONS OPEN

ASSISTANT PROFESSOR—The Department of Chemistry and Biochemistry and the Center for Agricultural Biotechnology of the University of Maryland, College Park announce the opening of a tenure-track joint assistant professorship. The successful candidate will be expected to initiate a competitive research program in the area of plant biochemistry, and to establish an interface between the Department and the Center. Investigators whose research interests include the biophysical and/or enzymological aspects of plant biochemistry are especially encouraged to apply. The joint appointee will have modern laboratory space in chemistry and biochemistry, a one-half teaching load and full access to departmental facilities and graduate students. A résumé, a synopsis of research interests, and three letters of recommendation should be sent by 15 August 1988 to: John W. Kozarich, Center for Agricultural Biotechnology, H. J. Patterson Hall, University of Maryland, College Park, MD 20742. *The University of Maryland is an Equal Opportunity Employer.*

American University, **ASSISTANT PROFESSOR, PHYSICAL BIOCHEMISTRY**. A tenure-track position is available for academic year 1988 to 1989, beginning fall 1988, at The American University in Washington, D.C. Responsibilities include teaching undergraduate and graduate physical chemistry, establishing an externally funded research program in biochemistry, scholarship student advising and University service. Qualifications: Ph.D. required, postdoctoral experience preferred. Applicants should submit curriculum vitae, outline of research interests, a list of publications, and three letters of reference to: Dr. James E. Girard, Chairman, Department of Chemistry, The American University, 4400 Massachusetts Avenue, NW, Washington, DC 20016. Applications received by 15 June 1988 are assured of full consideration. *The American University is an Equal Employment Opportunity/Affirmative Action University; minority and women candidates are encouraged to apply.*

POSITIONS OPEN

University of Michigan Medical School, Department of Biological Chemistry, is inviting applications for a faculty position at the rank of **ASSISTANT PROFESSOR**. Candidates should have a Ph.D. in organic chemistry with postdoctoral training in the isolation and characterization of mammalian cytochrome P-450 and related enzymes, protein chemistry, and use of techniques such as GC and HPLC. A strong interest and publications in the area of enzyme reaction mechanisms is necessary. Teaching obligations will not exceed 5 to 10% of total effort. Send résumé to: **Dr. M. J. Coon, Chairman, Department of Biological Chemistry, The University of Michigan Medical School, Ann Arbor, MI 48109-0606.** A nondiscriminatory, Affirmative Action Employer. Code 41.

ASSISTANT PROFESSOR

The Institute for Advanced Studies in Biological Process Technology in the College of Biological Sciences of the University of Minnesota invites applications for a tenure-track position at the rank of assistant professor of genetics and cell biology or microbiology.

Applicants must have a Ph.D. in either microbiology, genetics, biochemistry or a related field. We are seeking an individual whose research interests are directly related to the genetics, physiology or metabolism of microorganisms. Individuals with an interest in the streptomyces are encouraged to apply. Applicants must have a minimum of 2 years of postdoctoral training, demonstrated research ability and the potential to develop an active independent research program. Preference will be given to individuals who have an interest in application of their research to biotechnology.

Tenure and teaching responsibilities for this position will reside in the Department of Genetics and Cell Biology or the Department of Microbiology. This position is available beginning in the fall of 1988. Salary is negotiable based upon applicants previous experience.

Applicants should send a letter summarizing their research interests, experience, and goals; curriculum vitae; relevant reprints of recent research; and have three letters of recommendation sent to: **Dr. Michael C. Flickinger, Director, Institute for Advanced Studies in Biological Process Technology, 240 Gortner Laboratories, 1479 Gortner Avenue, University of Minnesota, St. Paul, MN 55108.**

Applications should be postmarked no later than 31 July 1988.

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

ASSISTANT PROFESSOR OF PHARMACOLOGY—DRUG ABUSE RESEARCH. The Department of Pharmacology and Toxicology at the University of Arkansas for Medical Sciences anticipates one, or possibly two, openings late in 1988. The successful applicants will have a joint appointment in the Department and in the new Center for Alcohol and Drug Abuse Research. Applicants with two or more years of postdoctoral research experience in the molecular aspects of drug abuse or alcoholism are preferred, although investigators with strong accomplishments in other areas of substance abuse research will be considered. Interested applicants should submit curriculum vitae to: **Dr. Donald E. McMillan, Professor and Chairman, Department of Pharmacology and Toxicology, University of Arkansas for Medical Sciences, 4301 West Markham Street, Mail Slot 611, Little Rock, AR 72205.**

UNIVERSITY OF MINNESOTA, MORRIS

One-year sabbatical replacement faculty position in geology, **ASSISTANT PROFESSOR OR INSTRUCTOR** level beginning 16 September 1988. Area of specialization must be paleontology and sedimentology. Participation in teaching physical geology and introductory field methods courses is required. College level teaching as a graduate teaching assistant or closely related experience required. M.S. in geology required, Ph.D./Ph.D. candidate desired. Discipline offers B.A. degree in geology and earth science education. Salary open and competitive with academic institutions. Send résumé, transcripts, three letters of reference by 17 June 1988: **Dr. James M. Olson, Chair, Room 217, Science and Mathematics Division, University of Minnesota, Morris, Morris, MN 56267.** *The University of Minnesota, Morris is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology, University of California, Los Angeles (UCLA) seeks an individual to teach and conduct research in drug metabolism, pharmacokinetics and toxicology. The successful candidate will have a strong background in chemistry, the ability to establish a strong and independent research program and to effectively teach graduate and medical students. Please send curriculum vitae, bibliography, summary of professional accomplishments and goals, together with the names of three references to: **Chair, Search Committee, UCLA Medical Center, Department of Pharmacology, 10833 Le Conte Avenue, Los Angeles, CA 90024-1735.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR (TENURE-TRACK) CLINICAL MICROBIOLOGY LABORATORY DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY UNIVERSITY OF MINNESOTA

A tenure-track faculty position is available for candidates with an M.D. degree with subspecialty training in laboratory medicine/pathology or infectious diseases with a minimum of 3 years of postdoctoral experience or research in clinical microbiology or microbial pathogenesis/genetics. Competence in current molecular technology is desirable. Demonstration of research productivity is necessary, including publications in peer-reviewed journals.

The individual will be expected to contribute to Clinical Microbiology Laboratory services, development of new diagnostic tools, and the teaching of postgraduate residents and postdoctoral fellows. The individual will be expected to develop an independent research program.

Applicants should send curriculum vitae and three letters of recommendation to: **Chairperson, Clinical Microbiology Search Committee, University of Minnesota, Box 198 UMHC, Department of Laboratory Medicine and Pathology, 420 Delaware Street S.E., Minneapolis, MN.**

Deadline for receipt of applications is 15 November 1988. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

THE SALK INSTITUTE ASSISTANT/ASSOCIATE PROFESSOR

The Salk Institute Molecular Biology and Virology Laboratory (MBVL) is seeking candidates to undertake independent research in molecular genetics and development. Current areas of research in MBVL include: oncogenic proteins and cell transformation (**W. Eckhart**); steroid receptors, neuroendocrine genes and development in transgenic mice (**R. Evans**); protein phosphorylation and signal transduction (**T. Hunter**); transcription factors (**K. Jones**); sexual differentiation in *Drosophila* (**M. McKeown**); protein tyrosine kinases (**B. Sefton**); oncogenes and gene therapy (**I. Verma**); immortalization and transformation (**M. Vogt**); and gene amplification and DNA replication (**G. Wahl**). The Salk Institute offers a highly interactive environment, with a number of research groups working in areas of molecular biology and the neurosciences. The institute is in close proximity to several major research institutions.

Interested individuals may submit an application to: **MBVL Search Committee, P.O. Box 85800, San Diego, CA 92138.** Please include curriculum vitae, a brief description of present and future scientific endeavors, and names of references.

The Salk Institute is an Equal Opportunity Employer, M/F/H/V.

ASSISTANT OR ASSOCIATE PROFESSOR OF MEDICINE to assume major scientific responsibility for a cardiovascular molecular biology program. The candidate may be an M.D. or Ph.D. with interest and experience in molecular genetics of contractile proteins, membrane channels or membrane receptors. The candidate would be expected to establish own laboratory and interact closely with active ongoing laboratories working in biochemistry, cell physiology, and cell biology of the cardiovascular system within a research-oriented Section of Cardiology. Please send inquiries, résumé, and the names of three references to: **Morton F. Arnsdorf, M.D., Chief, Section of Cardiology, University of Chicago Hospitals, Box #423, 5841 South Maryland, Chicago, IL 60637.**

POSITIONS OPEN

ASSISTANT, ASSOCIATE, OR PROFESSOR OF PLANT PATHOLOGY

The Department of Plant Pathology, University of California, Berkeley announces a 9-month tenure-track assistant, associate, or full professor position in plant pathogenic fungi, effective 1 January 1989. Applicants must have a Ph.D. degree with at least 2 years of postdoctoral experience in an area appropriate to the described position. Examples of research areas that would be considered appropriate include: the molecular biology of a choice of plant pathogenic fungus including pathogens of forest trees and/or cultivated crop plants, the molecular genetics and biology of infection or disease resistance processes or the molecular basis of pathogen-host specificity. Teaching responsibilities will include responsibility for portions of an introductory graduate class on biology, physiology, genetics, and molecular biology of plant pathogenic fungi and a graduate course in molecular plant pathology and the development of an advanced seminar. Applicants should submit curriculum vitae, transcripts, publications, and a brief description of research goals, and arrange for three letters of reference to be sent to: **J. G. Hancock, Department of Plant Pathology, University of California, Berkeley, CA 94720,** by 1 September 1988. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

BIOTECHNOLOGY STORY WRITERS

A new genetic engineering quarterly magazine is looking for free-lance writers with rDNA (or related) experience and journalism backgrounds for feature articles on the biotechnology industry and latest technology. Work from your present location. Macintosh computer users are preferred. Candidates should submit applications with credits and samples to: **G. Kawasaki, Editor, 1858 Swan Circle, Costa Mesa, CA 92626.**

CELL BIOLOGY/BIOCHEMISTRY: VISITING ASSISTANT/ASSOCIATE PROFESSOR for up to 3-year appointment to teach cell biology and biochemistry and assist in introductory biology majors course beginning January 1989. Ph.D. required. Active research program and involvement of undergraduates encouraged. The Department of Natural Sciences is a multidisciplinary department which offers B.S. degrees in biological sciences, chemistry, physics, microbiology, environmental science, biochemistry, and general science. Send curriculum vitae and names of three references to: **Biology Search Secretary, Department of Natural Sciences, The University of Michigan-Dearborn, Dearborn, MI 48128-1491.** Application screening will begin 15 June 1988. *The University of Michigan-Dearborn is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

CHAIRPERSON, DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS: The University of Mississippi Medical Center invites nominations for the position of professor and chairperson of the Department of Physiology and Biophysics. Candidates should have extensive teaching experience and be established investigators with a record of scholarly contributions and participation in appropriate professional organizations. Candidates with administrative background are preferred. The Medical Center in Jackson is Mississippi's only academic health center. There are four health professional schools on the campus—Schools of Medicine, Nursing, Health Related Professions and Dentistry; graduate programs in the medical sciences; and the 541-bed University Hospital, teaching hospital for all programs. The Department of Physiology and Biophysics has campuswide teaching responsibilities. The department is particularly noted for its research in cardiovascular, renal and endocrine physiology and for its quantitative approach to physiology, especially in the application of control systems analysis and computer simulation of physiological mechanisms. There are also active research programs in the areas of cellular, respiratory and neurophysiology. Nominations for the position should include the nominee's name, curriculum vitae, and names and telephone numbers of three references, and should be addressed to: **I. K. Ho, Ph.D., Chairman, Search Committee, c/o the Department of Pharmacology and Toxicology, the University of Mississippi Medical Center, 2500 North State Street, Jackson, MI 39216-4505.** Application deadline is 1 August 1988.

POSITIONS OPEN

COUNTY DIRECTOR/ADVISOR (Headquarters: Marin County): The University of California (UC), Division of Agriculture and Natural Resources, Cooperative Extension (CE) is seeking a career-track academic candidate who is responsible to the CE North Central Regional Director for operation and conduct of the CE program in Marin County. See that effective educational and research programs are carried out; direct the personnel administration of county Extension staff, maintain effective communications within the organization; secure adequate county Extension budget funding; develop/maintain good working relationships with various public/private organizations within the county. Responsible to the Marin County Board of Supervisors and the County Administrator for the county budget process. A minimum of Master's degree or equivalent combination of education and experience in agricultural sciences and/or Extension related fields is required. Demonstrated experience in county extension academic position in an agricultural-urban county is desired. An understanding of basic CE programs, including agriculture, family and consumer science, 4-H youth, development and community resource development is essential. Assure affirmative action in development and delivery of programs. Salary will be commensurate with experience and professional qualifications. For complete description, contact: **UC Division of Agricultural and Natural Resources Personnel, 6th Floor, Kaiser Center, 300 Lakeside Drive, Oakland, CA 94612-3560. Telephone: 415-987-0088.** Close: 17 June 1988. Refer to #A-88-061. *Affirmative Action/Equal Opportunity Employer M/F/H.*

ENVIRONMENTAL TOXICOLOGIST—Department of Biological Sciences at the University of North Texas (UNT) invites applications for a tenure-track assistant/associate/full professor position. A Ph.D. or equivalent degree and an outstanding record of research and publications is required. Successful candidates will be expected to develop/maintain a vigorous, grant supported research program, to participate in undergraduate and graduate teaching, to direct M.S. and Ph.D. students and to direct the Aquatic Toxicology Laboratory. University of North Texas is an emerging national research institution in the vibrant and rapidly expanding Dallas-Fort Worth metropolitan area with over 700 regular faculty and over 22,000 students (one-third graduate students). Submit curriculum vitae, description of research interests and names of three references by 30 June 1988 to: **Kenneth L. Dickson, Department of Biological Sciences, P.O. Box 13078, University of North Texas, Denton, TX 76203-3078.** UNT is an Affirmative Action/Equal Opportunity Employer.

EVOLUTIONARY BIOLOGISTS

The National Zoological Park, Smithsonian Institution, is seeking two evolutionary biologists, a senior scientist-in-charge, and research scientist. Candidates must be interested in conservation biology and capable of using molecular techniques towards the analysis of population genetics and sociobiological problems in higher vertebrates (especially birds and mammals). Both candidates should have active research programs and demonstrated research productivity. Additional duties of the senior position include overseeing the zoo's molecular genetics unit, managing a molecular genetics laboratory, and supervising junior staff, technicians, research fellows, and students. Successful candidate for both positions will be expected to develop independent research programs and undertake collaborative research with zoo staff whose interests include the genetics of natural and wild populations, population management, physiology, behavioral ecology, and sociobiology. Salaries and grade levels will be commensurate with education and/or experience, and are likely to range from GS-12 to GS-15.

Start-up and operating funds for the laboratory are expected, but the successful candidates will be expected to generate grant funds to support some of the research. Applications must include an SF-171 (personal qualifications statement), college/university transcripts, curriculum vitae, description of research and career goals, abstracts of your three most significant publications, and names and addresses of three references; and should be addressed to: **Smithsonian Institution Employment Office, 900 Jefferson Drive, S.W., Washington, DC 20560.** A separate application is required for each position. Deadline is 30 June 1988. Address inquiries to: **Dr. D. G. Kleiman, National Zoological Park, Washington, DC 20008.** The Smithsonian Institution is an Equal Opportunity Employer. Applications from qualified minority and female candidates are actively solicited.

POSITIONS OPEN

DEAN OF FACULTY THE SCHOOL FOR FIELD STUDIES

The School for Field Studies (SFS) is the leading international undergraduate program offering coursework and field research in conservation biology at field sites throughout the world. Annual student enrollment, 700+.

The Dean of Faculty is responsible for the academic program development and scientific research direction of the School. Dean will supervise four Centers (Kenya, Australia, Mexico, Caribbean), twelve faculty, thirty part-time faculty and support staff.

Requirements: Ph.D., preferably in conservation biology, resource management or related discipline. Candidate must have significant experience in educational administration, field work (preferably overseas), and in teaching and research. Candidate must also exhibit a commitment to nontraditional education and be ready for the challenge of directing a rapidly expanding educational program.

Salary: \$50,000 to \$60,000 plus benefits. Send curriculum vitae and letter of recommendation to: **President's Office, SFS, 376 Hale Street, Beverly, MA 01915.** An Equal Opportunity Employer.

ELECTROCHEMISTS

Eastern manufacturer of battery systems and electrochemical gas sensing devices seeks B.S., M.S., or Ph.D. electrochemical, electroanalytical, or analytical degree with or without work experience. *US citizenship or permanent residency required.* Submit résumé to: **Box 82, SCIENCE.**

UNIVERSITY OF CALIFORNIA BERKELEY COLLEGE OF NATURAL RESOURCES

FACULTY AND AGRICULTURAL EXPERIMENTATION STATION POSITION in the Division of Biological Control and Department of Entomological Sciences. A tenure-track position as assistant professor of entomology and entomologist in the Experiment Station will be available 1 September 1988. This is a 9-month appointment with summer salary guaranteed to tenure. Qualifications must include a Ph.D. degree in entomology or a related field. Demonstrated skills in statistics and quantitative methods in data analysis in insect ecology and population dynamics are required. Research emphasis is on the biological control of insects and other arthropods that are pests of agriculture in California, in such areas as host/parasitoid, prey/predator interactions; procurement and colonization of parasitoids and predators; recognition and selection of biotype of natural enemies; ecological and economic evaluation of natural enemies. Foreign exploration for exotic parasitoids and predators is expected. Teaching will be an undergraduate course in biological control, graduate seminars, and guidance of graduate students.

Applicants should send full curriculum vitae, list of publications and manuscripts, official transcripts of all college-level work, the names of three persons as reference, and a statement of purpose by 15 July 1988, to

**D. L. Dahlsten, Chair
Division of Biological Control
University of California
Berkeley, CA 94720**

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

GUEST RESEARCHER (EPIDEMIOLOGIST OR IMMUNOLOGIST/MICROBIOLOGIST). The Naval Dental Research Institute (NDRI) seeks regular or senior level applicants with research doctoral degrees (or completion of requirements) appropriate to the study of (i) dental disease epidemiology or treatment resource management, or (ii) the immunology and microbiology of periodontal disease. Relocation reimbursement plus minimum stipend of \$26,350 will be provided for tenures ranging from 3 months (senior only) to 1 year, with possible extension. *Equal Employment Opportunity and non-US citizens.* Contact: **Dr. M. E. Cohen (i) or Dr. L. G. Simonson (ii), NDRI, Building 1-H, NTC, Great Lakes, IL 60088.**

POSITIONS OPEN

Position available for **M.D. OR Ph.D.** with at least 3 years of experience in molecular and cellular biology, and a strong interest in the study of genes involved in proliferation and differentiation of leukemic cells. Must have expertise in: (i) Flow cytometric analysis, (ii) use of antisense oligonucleotides, (iii) study of growth factors and their receptors, (iv) DNA and RNA analysis. Salary commensurate with qualifications. Please send curriculum vitae as well as names of three references to: **Janet D. Rowley, M.D., University of Chicago, 5841 South Maryland, Box 420, Chicago, IL 60637.**

MICROBIAL IRON TRANSPORT POSTDOCTORAL RESEARCH ASSOCIATE

The College of Chemistry, University of California at Berkeley, invites applications for the position of Microbial Iron Transport Postdoctoral Research Associate. This is a postdoctoral research position at 50 to 100% variable time with an annual salary of \$20,000 plus fringe benefits. A Ph.D. in microbiology and/or biochemistry is required and specific experience in microbial iron transport is desirable. The research appointment will involve iron transport studies and microbial systems utilizing siderophore-mediated iron transport. Growth of specific microorganisms and their mutants, transport assays and some coordination chemistry research will be involved. The candidate will be expected to work independently with the research activities and must have the ability to communicate both in writing and orally the research results. Experience with modern instrumentation in this field and their supervision is needed.

Candidates should submit curriculum vitae, including a list of publications, and three letters of reference to: **Professor Kenneth N. Raymond, College of Chemistry, University of California at Berkeley, CA 94720.** The deadline for receipt of applications is open until position is filled.

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

MICROBIOLOGIST-GENETICIST. The Biology Department, Missouri Southern State College, invites applications for a tenure-track position with teaching responsibilities to include microbiology, medical microbiology, pathologic microbiology, genetics, general biology, virology, and immunology. Ph.D. preferred with a strong commitment to undergraduate teaching and research. Cell and molecular emphasis is desirable. Application deadline is 15 June 1988.

Send a letter of application, curriculum vitae, and three letters of reference to:

**Dr. Ray A. Malzahn, Dean
School of Arts and Sciences
Missouri Southern State College
Joplin, MO 64801-1595**

Missouri Southern State College is an Equal Opportunity/Affirmative Action Employer.



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

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE (ARS) MOLECULAR BIOLOGY POSTDOCTORAL RESEARCH ASSOCIATE

Appalachian Soil and Water Conservation Research Laboratory, Beckley, West Virginia, ARS, is seeking a molecular biologist to join a group investigating soil-root interactions. Model system involves use of root-colonizing *Pseudomonas* strains and forages. Successful candidate will be responsible for development of recombinant DNA molecules, especially derivatives carrying lacZY inserts, suitable for tracing genetically-engineered microorganisms in soils. Ph.D. with knowledge in prokaryotic molecular biology and experience in transposition, plasmid construction, transformation, and cloning is required. Salary is \$27,716 (GS-11) or \$32,218 (GS-12). New laboratory, well-equipped. For further information, contact: **Dr. T. E. Staley at 304-252-6426.** For information on application procedures and forms, contact: **Alice MacNamara, 301-344-8560** by 1 August 1988. Applications in response to the advertisement should be marked 8N021 and must be received by 1 September 1988. ARS is an Equal Opportunity Employer. *Women and Minorities are Encouraged to Apply.*

POSITIONS OPEN

MOLECULAR CELL BIOLOGIST/IMMUNOLOGIST THE UNIVERSITY OF CHICAGO THE BEN MAY INSTITUTE AND THE DEPARTMENT OF PATHOLOGY

The Ben May Institute and the Department of Pathology of the University of Chicago are seeking applicants for at least two junior faculty positions. We are committed to developing strong programs in the molecular aspects of the control of cell growth and differentiation. We are seeking outstanding individuals who are using the approaches of molecular biology or cell physiology to examine basic mechanisms of cell signaling events or regulation of gene expression. Existing related research programs in the Ben May Institute and the Department of Pathology include molecular and genetic aspects of receptor signalling mechanisms involving steroid hormone receptors, growth factor receptors, and T lymphocyte activation and regulation. Candidates should have sufficient research experience to demonstrate both significant accomplishment and outstanding promise. Letters of application including curriculum vitae, bibliography, a brief statement indicating research interests, and the names of three references should be sent to: **Dr. Frank Fitch, Director, Ben May Institute, The University of Chicago, Box 424, 5841 South Maryland Avenue, Chicago, IL 60637.**

MOLECULAR GENETICIST. Children's Hospital of Western Ontario, Child Health Research Institute. A full-time academic appointment, University of Western Ontario, Department of Pediatrics, Division of Medical Genetics. Requirements: Ph.D. in biological sciences, strong research interest in basic or applied human genetic disease. Forward curriculum vitae to: **Dr. J. H. Jung, Children's Hospital of Western Ontario, 800 Commissioners Road East, London, Ontario, N6C 2V5.** In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian Citizens and permanent residents of Canada. This is an Equal Opportunity Employer. Closing date for applications: 31 August 1988.

NEUROIMMUNOLOGY RESEARCH COORDINATOR. Individual with technical expertise is sought for the creation and production of monoclonal antibodies towards defined brain molecules and their use for neuroimmunologic research. Considerable independence and an opportunity for career advancement will be strongly encouraged and available to the right person. Competitive salary and excellent benefits. Please contact: **Dr. Howard Fillit, Box 1070, The Mount Sinai School of Medicine, Fishberg Research Center for Neurobiology and Department of Geriatrics, One Gustave L. Levy Place, New York, NY 10029-6574. Telephone: 212-241-7557. An Equal Opportunity Employer.**

NEUROVIROLOGY POSITION at the postdoctoral fellow or research associate level is now available at Memorial Sloan-Kettering Cancer Center. NIH-funded studies deal with the viral pathogenesis of HIV infection of the nervous system and the AIDS Dementia Complex. The position requires a background in pathogenic or molecular virology or cell biology. Salary is commensurate with previous training and experience. Please forward curriculum vitae and three references to: **Richard W. Price, M.D., Department of Neurology, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.**

OPHTHALMOLOGIST to head Section of Molecular Biology and Genetic Eye Disease in the Department of Ophthalmology and Visual Science, Yale University School of Medicine. Training and record in clinical and molecular genetics. Will be expected to direct teaching and research programs in section. Send curriculum vitae and bibliography to: **Chairman, Search Committee, Department of Ophthalmology and Visual Science, Yale University School of Medicine, P.O. Box 3333, New Haven, CT 06510. Affirmative Action/Equal Opportunity Employer.**



Commonwealth of Australia Bureau of Mineral Resources, Geology and Geophysics

SENIOR RESEARCH SCIENTIST OR PRINCIPAL RESEARCH SCIENTIST OR SENIOR PRINCIPAL RESEARCH SCIENTIST

The Bureau of Mineral Resources, Geology and Geophysics (BMR), Canberra, invites applications from suitably qualified women and men for the following position for a Research Scientist in the field of Regolith Development.

Canberra, the Nation's Capital, is an easy two hour drive to the snowfields in the South or the coastal fringe to the East. Sydney is three and a half hours drive to the North-East. Comprehensive sporting and recreational facilities are available, and it has excellent public and private schools and tertiary institutions.

The Division of Petrology and Geochemistry is responsible for a new program designed to understand the distribution and the origin of the Australian Regolith through a co-ordinated approach comprising geomorphology, geochemistry, remote sensing, geophysics etc. The objective of this program is to determine the nature, composition and evolution of the regolith, and underlying or contained resources including mineral deposits and groundwater.

Duties:

The successful applicant will lead a small team to develop this program and will have a geological background and special interest or expertise in processes involved in regolith development. Specialist knowledge of one or more of the following areas: geomorphology, sedimentology, remote sensing or low-temperature geochemistry would be an advantage.

Qualifications:

Qualified for admission to a degree of Doctor of Philosophy or equivalent qualification, and appropriate research experience. PhD or equivalent in geology, with extensive postgraduate experience, demonstrated research ability and a strong publication record.

The level of appointment will be determined by the successful applicant's qualifications and experience and will be in one of the following categories:

Senior Research Scientist	\$A36,734-\$A42,174
Principal Research Scientist	\$A43,741-\$A49,569
Senior Principal Research Scientist	\$A52,183-\$A57,276

Conditions of service in the Australian Public Service include four weeks recreation leave per year plus bonus, cumulative sick leave, long service leave, comprehensive superannuation scheme and costs of relocation to Canberra.

To be eligible for permanent appointment to the Australian Public Service, an applicant must hold Australian Citizenship. However, a successful applicant accepted for immigration, and intending to apply for Australian Citizenship, may be appointed to the Service on probation. Such an appointment would be confirmed when citizenship is granted. Fixed term temporary employment of up to five years may be negotiated for a successful applicant who is not eligible for permanent appointment to the Service.

Applications together with full personal and professional details and the names of at least three referees should be sent to: **The Secretary, Department of Primary Industries and Energy, PO Box 858, CANBERRA, ACT 2601, AUSTRALIA. Ref: NPPG.**

ATTENTION: Recruitment Officer.

Applications close: June 30, 1988.

SCIENTISTS

Genencor, Inc. is a dynamic and growing biotechnology company located in South San Francisco, California. We specialize in the research and development of enzymes and enzyme processes as well as the production of industrial enzymes. We are actively recruiting for two positions in our Development Department:

BACTERIAL PHYSIOLOGIST: Develop and evaluate microbial hosts for the large scale production of useful proteins. Conduct and optimize fermentations on both the laboratory and pilot plant scales. Requires Ph.D. or equivalent in microbiology or related field. Knowledge of genetics and genetic techniques is essential. Some knowledge of engineering principles is useful. Refer to Dept. MA.

PROCESS BIOCHEMIST/PROTEIN CHEMIST: Extract, purify and characterize enzymes from both bacterial and fungal broths. Working as part of a project team, this individual will develop and implement purification schemes for large scale recovery operations. Some travel is required. Requires Ph.D. in biochemistry or a related field and two years post-doctoral experience. Some pilot plant or production experience in industry is preferred. Strong interpersonal and communications skills are essential. Proven project management and supervisory skills are desirable. Refer to Dept. HMD.

We offer an outstanding compensation and benefits package combined with the opportunity to make a significant contribution to our dynamic organization. To apply, please send your resume to GENENCOR, Inc., 180 Kimball Way, South San Francisco, CA 94080. Attn: Human Resources. Please note appropriate Dept. Genecor is an equal opportunity employer.

GENENCOR

DIRECTOR OF CONSERVATION

Our client, a N.Y. based international conservation organization, seeks a new Director and Chief Spokesperson possessing significant experience in conservation or international development. The successful candidate will have abilities in management, fund raising, long range planning and government and public relations. Please forward resume with salary history to:

MONACO & ASSOCIATES

3761 Indian Hill Road
Shrub Oak, NY 10588

Equal Opportunity Employer M/F/H/V

DIRECTOR Corporate Technology

*We're looking for a leader
to step in and take charge.*

Fortune 100 Combustion Engineering, a diversified \$3 billion company needs a seasoned pro to head up and develop major technology programs. Someone with excellent communication and interpersonal skills who can represent us in the professional community, and help strengthen our image as a leader in technology.

As Director, you will be expected to provide leadership in, and identify, technology opportunities for us. Additional responsibilities will be to review and monitor major research and development programs.

This leadership role requires a PhD in Engineering, Physical Sciences or applied mathematics. The ideal candidate will have more than one of these disciplines in their background. However, if you have 5 to 10 years in advanced technology program management, your experience is worth as much as an advanced degree. We will also consider tenured faculty who may be seeking 2-3 years industrial experience while on university leave.

We offer competitive salaries, a complete benefits package and excellent prospects for professional development and growth. For prompt, confidential consideration, please send resume with salary history/requirements, to: Director of Staffing, Combustion Engineering, 900 Long Ridge Road, P.O. Box 9308, Stamford, CT 06904. An equal opportunity employer M/F/V/H.

COMBUSTION ENGINEERING

NATIONAL INSTITUTES OF HEALTH

PUBLIC HEALTH SERVICE

Staff Fellowship in Cell Biology—Experimental Morphology

The Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health (NIH), invites application for a Staff or Senior Staff Fellowship position to study the structure of peripheral nerve and brain, with particular reference to the blood-nerve and blood-brain barriers; as well as cell surface properties determining morphogenesis in the nervous system. The successful candidate should be competent in light microscopy and electron microscopy, with demonstrated experience in freeze-fracturing, rapid freezing and scanning techniques, as well as techniques of tritiated autoradiography, enzyme histochemistry, immunocytochemistry and possibly in situ hybridization.

Applications are invited from qualified individuals having a Ph.D., M.D., or both, with experience in cell biology and morphology of the nervous system. Salary range is \$20,000 to \$43,452 commensurate with qualifications. Interested candidates should submit a Curriculum Vitae and a statement of research interests, as well as three letters of recommendation, to Stanley I. Rapoport, M.D., Chief, Laboratory of Neurosciences, National Institute on Aging, NIH, Bldg. 10, Rm. 6C-103, 9000 Rockville Pike, Bethesda, Maryland 20892.

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

Putting Technology To Work

Battelle, Pacific Northwest Laboratories performs research on energy technology development and waste management technology along with the environmental and biomedical impacts of these technologies. Join a multi-disciplinary team of internationally recognized scientists and engineers providing imaginative and practical solutions to complex technical challenges.

Manager, Chemical Process Development

Our Materials and Chemical Applications Department has an opening for the Manager of its Chemical Process Development Section. The section conducts challenging research for the Department of Energy, other government agencies, and industrial clients in areas such as remediation treatment for hazardous wastes and innovative thermochemical and catalytic technology. Position requirements include:

- Advanced degree in Chemical Engineering or Chemistry and proven management and development of R&D
- Minimum of ten years' experience in research or industrial chemical engineering, including separations and recovery processes, thermochemical conversion processes, biochemical processes, and process modeling.
- Technical leadership, planning, and research project development in new research areas dealing with broad aspects of physical and inorganic chemistry.

In addition to our unique research environment and the innovative scope of our projects, Battelle offers a comprehensive compensation package and a highly desirable location for recreational pursuits. Send resume, salary history, current salary requirements and references to: **Loren P. Henderson, Battelle, Pacific Northwest Laboratories, P.O. Box 999, Dept. 038, Richland, WA 99352.**

U.S. citizenship required. We are an equal opportunity employer M/F.



Battelle

Pacific Northwest Laboratories



NATIONAL UNIVERSITY OF SINGAPORE INSTITUTE OF MOLECULAR & CELL BIOLOGY POSTDOCTORAL FELLOWS

Applications are invited for appointment as Postdoctoral Fellows in the Institute of Molecular and Cell Biology.

The Institute was recently established to undertake basic biomedical and biotechnological research. It will also provide training at pre- and post-doctoral levels. The Institute has three principal research areas related to Cell Regulation, Infectious and Genetic Diseases and Molecular and Cell Biology of Plants.

The Institute, which is adjacent to the University's biomedical complex and the National University Hospital, has 19 laboratory modules of 1,000 square feet each.

Successful candidates will be pursuing research in one of the following areas: Human Papilloma Virus, Molecular Immunology, Molecular Biology of Stress, Molecular Neurobiology (eg. Gene expression in brain), Protein Engineering, Plant Molecular Biology as well as Biochemical and Cellular Basis of Cell Regulation.

Salary will be commensurate with experience; leave, medical and other benefits will be provided. Applicants should send their curriculum vitae and names and addresses of 3 referees to the:

**Director
Personnel Department
National University of Singapore
10 Kent Ridge Crescent
Singapore 0511,**

Enquiries may also be sent through BITNET to:

PERSDEPT @ NUSVM

MOLECULAR BIOLOGIST HYPERCHOLESTEROLEMIA

The Squibb Institute for Medical Research is recognized internationally as a leader in the research and development of novel therapeutic agents for the treatment of cardiovascular disease. We currently have an exceptional opportunity available for an experienced research associate to join our Cellular Biology Department.

You will be responsible for conducting experiments in the area of cholesterol biosynthesis and transport with particular emphasis on gene regulation. Qualified candidates must have a B.S. (M.S. preferred) in Molecular Biology or Biochemistry and a minimum of 1 year related research experience. A working knowledge of protein and enzyme biochemistry, molecular biology or mammalian tissue culture is desirable. You will join a group of highly talented scientists engaged in an interdisciplinary approach to the study of hypercholesterolemia.

We can offer an excellent salary and comprehensive benefits package as well as the opportunity to pursue a stimulating and rewarding career. For confidential consideration please submit your resume to: **The Squibb Institute for Medical Research, Human Resources Department 800, P.O. Box 4000, Princeton, New Jersey 08540.**



SQUIBB

Where science comes to life.

POSITIONS OPEN

PHARMACOLOGIST to serve as Chief of the Biochemical Pharmacology Branch, Pharmacology Division, US Army Medical Research Institute of Chemical Defense, Aberdeen Proving Ground, Maryland. Responsible for supervising and managing fundamental research on mechanism of action of toxic agents and the development of concepts of prophylaxis and therapy. Qualified applicants must have established expertise in biochemical pharmacology as indicated through peer reviewed publications. Demonstrated ability to efficiently and effectively manage and supervise research teams is highly desirable.

Salary range \$46,000 to \$60,000 per annum. The successful candidate will likely have a Ph.D. degree in pharmacology or related field. This position is in the civil service job category pharmacology/chemist GM-405-14/GM-1320-14. *U.S. Citizenship is required and the applicant must be able to obtain a security clearance.*

Send résumés by 1 July 1988 to: **Commander, US Army Aberdeen Proving Ground, Attention: STEAP-PA-CR-D (Ms. Bynum), Aberdeen Proving Ground, MD 21005. Equal Opportunity Employer.**

PHYSIOLOGY

Full-time, **TENURE-TRACK POSITION** available. Rank commensurate with experience. Responsibilities include restructuring and implementing the basic physiology course for dental students and developing a strong research program. Current research interests should include basic/applied physiology. Applicant must be willing to interact with other basic/clinical scientists at the School of Dental Medicine. *An Equal Opportunity/Affirmative Action Employer.*

Send curriculum vitae and references to: **Dr. B. F. Hammond, Associate Dean of Academic Affairs, University of Pennsylvania School of Dental Medicine, 4001 Spruce Street, Philadelphia, PA 19104.**

PLANT MOLECULAR BIOLOGIST/BIOCHEMIST

The United States Department of Agriculture, Agricultural Research Service, Cereal Crops Research in Madison, Wisconsin is seeking a plant molecular biologist/biochemist to do research on gene expression and enzyme regulation in barley and oats as it relates to malting and nutritional quality. Candidates should have knowledge and experience in recombinant DNA procedures and plant biochemistry. Postdoctoral experience is desired. Must be U.S. citizen. Salary is commensurate with experience (\$27,716 to \$51,354). For information on research program or position contact: **Dr. David M. Peterson on 608-262-4482.** For information on application procedures and forms contact: **Janie Carr on 301-344-4569.** Applications in response to this advertisement should be marked **8N024**, and sent to: **U.S. Department of Agriculture, Agricultural Research Service, Personnel Operations Branch, Northern Section, MWA, Building 419, BARC-East, Beltsville, MD 20705.** Applications must be received by 28 June 1988. *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIP: Available this year to study erythropoietin receptor and mechanism of action of erythropoietin and Friend virus on erythroid differentiation. Research will involve cell isolation, protein purification, and molecular biology of initiation of gene transcription. This position offers a good chance to combine molecular biology with cell biology in the study of terminal differentiation. Send curriculum vitae and names of three references to: **Dr. Sanford B. Krantz, Vanderbilt University, Medical Center North, Room C-3101, Nashville, TN 37232. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIP/RESEARCH ASSOCIATE position available 1 July 1988 in NIH-funded basal ganglia neuropharmacology project which will examine interactions among dopamine receptors and GABA/substance P metabolism. The successful applicant with M.D. and/or Ph.D. degree(s) will utilize techniques of regional brain drug injection and microdialysis, quantitative autoradiography, radioimmunoassay and HPLC. Clinically qualified M.D.'s may also participate in the Movement Disorders Program, if desired. Send curriculum vitae and three letters of reference to: **James P. Bennett, Jr., Department of Neurology, Box 394 University of Virginia School of Medicine, Charlottesville, VA 22908.**

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE

Two postdoctoral positions are available beginning 1 July 1988 for research involving mechanistic studies of biological thiol/disulfide exchange processes. Areas of research interest include the mechanisms of disulfide bond formation during protein folding, catalysis of thiol/disulfide exchange, and regulation of enzyme activity by thiol/disulfide exchange. Experience in enzymology, peptide chemistry, protein purification, or metabolic control is required. Salary: \$18,000 to \$21,000 per year (plus fringe benefits) depending on qualifications. Send curriculum vitae and three letters of recommendation to: **Dr. H. F. Gilbert, Department of Biochemistry, Baylor College of Medicine, Houston, TX 77030. Baylor College of Medicine is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOW. Position available in the Department of Therapeutic Radiology, Yale University School of Medicine. Position available as early as 1 June 1988 for a postdoctoral fellow interested in pursuing questions relevant to the autocrine and paracrine control of growth proliferation and stromal invasion in ovarian, endometrial and other adenocarcinomas, as well as the effects these growth factors exert on tumor cell response to DNA-damaging agents, such as x-rays and drugs used in cancer chemotherapy. Preference will be given to applicants with experience in protein chemistry, molecular biological techniques and mammalian cell culture. Applicants should submit a letter describing their research interests, along with a complete curriculum vitae and letters of reference to: **Barry M. Kacinski, M.D., Ph.D., Department of Therapeutic Radiology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.**

POSTDOCTORAL POSITION. Available September 1988, for collaborative studies of growth factor synthesis and function in hormone responsive and unresponsive prostate cancer cells. Molecular studies of hormone regulated growth factor gene expression and biochemical studies of growth factor function will be pursued with **Dr. Sydney A. Shain.** Candidates must have strong background and laboratory experience in cell biology and/or molecular biology. Send curriculum vitae and the names and telephone numbers of three references by 31 July 1988, to: **Personnel Director (847), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78284. Equal Opportunity Employer M/F.**

Massachusetts Institute of Technology/Department of Biology **POSTDOCTORAL POSITION** available immediately to investigate the molecular events responsible for microbial genetic recombination and mismatch repair. Send curriculum vitae and names of three referees to: **Dr. Maurice Fox, Department of Biology, Massachusetts Institute of Technology, Cambridge, MA 02139.**

POSTDOCTORAL POSITION available for study of the anatomy and physiology of cerebellar circuits involved in limb movement. Main emphasis of research is on single unit recording (recording) during movement and on WGA-HRP neural tracing. Researcher will collaborate with **Peter van Kan** and **Alan R. Gibson.** Send résumé and description of research interests and skills to: **Alan R. Gibson, Barrow Neurological Institute, 350 West Thomas Road, Phoenix, AZ 85013. Telephone: 602-285-3732.**

For the biologically inclined: **POSTDOCTORAL POSITION** available. This is a once-in-a-lifetime opportunity to explore the development of the vascular system from its very beginning. Only enthusiastic, highly qualified, industrious individuals truly curious about the biology of development need apply. The position is available immediately. The Wistar Institute is a non-profit research institute located on the University of Pennsylvania campus. It provides an excellent research environment with ample opportunity to interact with individuals at the institute as well as at the university. Interested individuals should send résumé and three letters of recommendation to: **Clayton Buck, Director of Scientific Development, The Wistar Institute, 3601 Spruce Street, Philadelphia, PA 19104. Equal Opportunity Employer, M/F.**

POSITIONS OPEN

POSTDOCTORAL POSITION available 1 July 1988 to study transferrin receptors in African trypanosomes. An interest in receptor mediated processes and a background in protein purification or recombinant DNA techniques is desirable. Send curriculum vitae to: **Dr. Larry Ruben, Department of Biology, Southern Methodist University, Dallas, TX 75275. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately to study synaptic plasticity or synapse elimination at the neuromuscular junction. Techniques include repeated in vivo observation with video microscopy, image processing, electrophysiology, histology, and histochemistry. Send curriculum vitae and names of three references to: **Dr. Albert Herrera, Neurobiology Section, Biological Sciences, University of Southern California, Los Angeles, CA 90089-0371. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately for structure/function studies of nuclear proteins in skeletal and cardiac myogenesis. A strong background in cell and molecular biology is required. This position is part of an NSF Center of Excellence in Cell and Molecular Biology Program developing at Meharry Medical College. *Minority candidates are encouraged to apply.* Salary commensurate with experience. Submit curriculum vitae and two references to: **Dr. Jaswant S. Bhorjee, Division of Biomedical Sciences, Meharry Medical College, 1005 D.B. Todd Boulevard, Nashville, TN 37208. Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately for research in (i) purification and characterization of components of the hemidesmosome, a key cell-matrix contact in normal and wound-healing epidermis and (ii) control of expression of the differentiation marker, keratinocyte transglutaminase. Salary \$18,000 to \$22,000. Contact: **Scott M. Thacher, Department of Medical Biochemistry and Genetics, Texas A&M University, College Station, TX 77843. Telephone: 409-845-0828. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION available for studies on the neural control of blood flow in the choroid of the eye. These studies will involve a combination of anatomical (immunohistochemistry, pathway tracing, LM, EM) and physiological techniques (laser-Doppler, neurophysiology) to identify the circuitry and transmitters involved in control of choroidal blood flow, determine their precise role and clarify their importance for outer retinal health. An interest in vision or previous experience with neuroanatomical or immunohistochemical techniques desirable. Salary based on experience. Contact: **A. Reiner, Department of Anatomy and Neurobiology, University of Tennessee, Memphis, TN 38163.**

POSTDOCTORAL POSITION available to study cellular events underlying the development of neuronal polarity. Research concerns the determination of the axon and dendritic growth and branching by hippocampal neurons in culture, using time-lapse and computer-enhanced video microscopy, immunocytochemistry and electron microscopy, microsurgery and microinjection. Send curriculum vitae, description of research background and interests, and names of three references to: **Dr. Gary Banker, Department of Anatomy, Albany Medical College, Albany, NY 12208.**

A **POSTDOCTORAL POSITION** for challenging research in computer modeling of macromolecular structures will be available 1 July 1988 at the University of Kansas. Ph.D. in chemistry or closely related field is required. Strong background in structural bioorganic chemistry or protein crystallography as well as programming experience in a VAX/VMS environment required. Familiarity with computer graphics and molecular mechanics/dynamics software desired.

Salary will range from \$20,000 to \$24,000, depending on qualifications and experience. Interested candidates should send their curriculum vitae and two letters of reference by 15 June 1988 to: **Dr. A. Vedani, Department of Chemistry, University of Kansas, Lawrence, KS 66045. An Equal Opportunity/Affirmative Action Employer.**



GLAXO INSTITUTE FOR MOLECULAR BIOLOGY S.A.

The Geneva biotechnology research unit of a large UK pharmaceutical group has a vacancy in the department of Molecular Biology for a specialist in

animal-cell expression

to investigate gene regulation in animal cells.

The Glaxo Institute for Molecular Biology provides a molecular basis for the discovery of effective new medicines. Projects include viral therapeutics, inflammatory diseases, and regulation of cell proliferation and differentiation.

Situated in the attractive city of Geneva, the Institute has a staff of over one hundred, grouped in small teams of specialists from several domains of modern biology. We are part of the Glaxo Group – one of the largest pharmaceutical companies in the world – which has an outstanding reputation for the quality of its research and products. The Institute offers an excellent salary and benefits package, as well as an interactive research environment.

The ideal candidate will have several years postdoctoral research experience and a proven track record in the field of animal cell expression. Experience with viral systems – retroviral in particular – would be an advantage.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three references to: Rita Gloor, Personnel Manager, GLAXO IMB SA, 46, route des Acacias, 1211 Geneva 24, Switzerland.

Atherosclerosis— Vascular Biology Research

The Upjohn Company, a leader in pharmaceutical research, is expanding its Atherosclerosis Research program and is seeking a scientist to initiate and carry out original research directed toward understanding the mechanisms of atherosclerosis. The successful candidate will join our Metabolic Diseases Research Unit and will interface with both physiologically and chemically oriented laboratories to investigate how specific chemical modulators of cell functions can be used to both elucidate the mechanism involved in the development of atherosclerosis and to treat the disease. The successful candidate will collaborate with our scientists working on the integration of the phenomena of vascular cell injury, cell proliferation and infiltration, lipoprotein metabolism, and lipid accumulation. Effective communication of results, both orally and in writing, is expected as well as publication of research data.

Candidates should have a Ph.D. degree in a medical science, preferably pharmacology, with a minimum of 2 years of relevant postdoctoral experience. Expertise in

both biochemical and physiological approaches to studying blood vessel disease is required; expertise in studying cells in culture as well as lipid metabolism is desirable. Ability to extend *in vitro* findings to intact tissues or to *in vivo* models is also desirable.

Upjohn is located in Kalamazoo, 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 a stimulating research environment, excellent salary, comprehensive benefits and career potential. For prompt, confidential consideration, please send your CV/resume, list of publications and names and addresses of references, to M. William Rex, Corporate Employment, The Upjohn Company, Kalamazoo, MI 49001. Please refer to advertisement number 22904-HA in your correspondence. We are an Equal Opportunity Employer M/F.

**Our Commitment to Scientific
Excellence Continues...**

Upjohn



**Memorial Sloan-Kettering
Cancer Center
IMMUNOLOGY PROGRAM**

FACULTY POSITIONS IN IMMUNOLOGY

The Immunology Program at the Memorial Sloan-Kettering Cancer Center is seeking applications from immunologists for several tenure-track faculty positions. The potential candidate should be using modern genetic, biochemical and molecular biological techniques to study problems in the areas of cell surface antigens and receptors on lymphocytes. The specific rank of appointment will be commensurate with the candidate's experience and achievements. This is an expanding program consisting of 16 faculty members with diverse interests in the areas of immunogenetics, cellular immunology and tumor immunology, who are committed to basic research and the training of graduate and postdoctoral students. Excellent start up funds and space available.

Please submit your curriculum vitae, a brief statement of present and future research goals and the names of three references to:

**Dr. Osias Stutman
Chairman, Immunology Program
Sloan-Kettering Institute
1275 York Avenue
New York, New York 10021**

SKI is committed to equal opportunity through affirmative action and, therefore, members of minority groups are encouraged to apply.

Staff Researcher

Syntex, an international leader in the pharmaceutical and health care industry, has an immediate opening for a Staff Researcher in our Institute of Pharmaceutical Sciences.

You will work independently, designing and executing experiments to develop and characterize liposomes for use as potential drug delivery systems. Other duties include supporting activities related to drug solubilization, formulation and bioavailability utilizing liposomes and assisting basic research related to liposome-cell interactions.

To qualify, you must have a PhD in Biochemistry, Pharmacetics, Pharmacology or Chemistry and up to six years' experience with liposome technology. Working knowledge of electron microscopy, particle sizing, contact angle measurements, fluorescence spectroscopy and chromatography is also required.



Syntex offers a competitive compensation and relocation package in campus-like surroundings. For immediate consideration, please send your resume to: Syntex, Professional Staffing, Dept. KH/SR, 3401 Hillview Ave., Palo Alto, CA 94304. An equal opportunity employer.

The University of British Columbia HEAD, DEPARTMENT OF PLANT SCIENCE Vancouver, B.C.

Applications and nominations are invited for the position of Head of the Department of Plant Science.

The Department is a unit within the Faculty of Agricultural Sciences. It has a complement of full-time faculty, 18 part-time lecturers and adjunct professors, and 12 full-time staff. Undergraduate students number 80-100 and there are 45 graduate students enrolled in Masters and Ph.D. programs.

The Department offers undergraduate programs leading to the B.Sc.(Agr.) and to the B.L.A. (Landscape Architecture). Research and graduate programs are well established in several fields; agronomy, biotechnology, crop physiology, entomology, genetics, horticulture, plant pathology, range ecology, and weed science.

The Head will be expected to provide academic and administrative leadership for the full range of programs in the Department; to foster a stimulating and congenial academic environment; and to maintain effective working relationships with other academic units and with related research and professional groups.

The appointment as Head will be for a five-year term which may be renewed. The academic appointment is expected to be at the rank of Professor and is subject to final budgetary approval. Salary negotiable, depending on qualifications. The successful candidate will have a strong research program, a commitment to excellence in teaching and will have demonstrated evidence of leadership and administrative ability.

Applications must include a curriculum vitae and the names of at least three references.

Correspondence should be sent by August 31, 1988 to:

**Dr. J.F. Richards, Dean,
Faculty of Agricultural Sciences
Room 248, 2357 Main Mall
Vancouver, B.C. V6T 2A2**

The University of British Columbia offers equal opportunity for employment to qualified male and female candidates. In accordance with Canadian Immigration requirements priority will be given to Canadian citizens and permanent residents of Canada.

*The Faculty of Medicine, University of
Geneva, has an opening for a*

FULL PROFESSOR

in its Department of Biochemistry.

This is a full time post. It involves the direction of a research programme at the international level in some aspect of academic or clinical biochemistry; 35 hours per year of lectures and seminars (in French); responsibility for 40 hours of practical classes; supervision of Diploma and Doctoral students.

Qualification required: PhD. or M.D.

**Starting date: 1 October 1988, or
by arrangement**

Applications should be sent before 25/7 to the **Secrétariat de la Faculté de Médecine, Centre Médical Universitaire, 1 rue Michel-Servet, 1211 Genève 4, Switzerland**, from whom further particulars of the post can be obtained.

**REQUEST FOR PREPROPOSALS
SUPPLEMENT TO THE UNITED STATES
ARMY MEDICAL RESEARCH AND
DEVELOPMENT COMMAND
BROAD AGENCY ANNOUNCEMENT**

The U.S. Army has a special interest in preproposals for medical research directed toward defining the pathogenesis of and medical treatment for injuries sustained by exposure to VESICATING chemical warfare agents. Specific areas of interest include the following:

**PATHOPHYSIOLOGY AND PHARMACOLOGY FOR
MEDICAL COUNTERMEASURES STRATEGIES**

- General organ systems - Route of entry and biodisposition of toxic agents as related to systemic toxicity.
- Skin effects - Toxicity, pathogenesis, and mechanisms of action; identification of the etiology of blister formation and protracted healing.
- Etiology, pathogenesis and mechanisms by which sulfur mustard initiates leukopenia and granulocyte depletion.
- Identification and validation of in vivo or in vitro systems to mold the actions of vesicant agents and pharmacological countermeasures.
- Respiratory effects - Pathophysiology, pathogenesis and sequelae of lesions, mechanisms of action and suitable pharmacological intervention.
- Ophthalmic effects - Toxicity, pathogenesis and mechanisms of photophobia and ocular damage.
- Pharmacokinetics, metabolism and pharmacodynamics of both exposure to vesicants and of candidate prophylactic and therapeutic compounds, alone and combined.

DRUG ASSESSMENT

- Development of models and criteria for the (pre-IND/NDA) identification and evaluation of antivesicant compounds which are effective as systemic pretreatment or treatment drugs (both self-aid and medical care).
- Development of models and criteria for the identification and evaluation of topical barriers which are safe and effective in the prevention of vesicant injury to skin.

MEDICAL MANAGEMENT

- Development of effective diagnostic and prognostic procedures or measures for field use to assess the extent of patient injury to include rational criteria for triage.
- Development of cumulative and acute dosimetry technology for assessment of body burden.
- Identification and development of clinical medical procedures which decrease the burden of patient care and achieve more rapid healing.
- Definition and resolution of clinical critical care issues such as treatment regimens, relief of pain and itching, wound care and respiratory support.

Threat agents of interest include sulfur mustard, lewisite, and phosgene oxime (Note that nitrogen mustard is not considered a military threat). The goal of this research for the U.S. Army Medical Chemical Defense Program is to identify promising self aid, medical countermeasures and procedures which preserve the capabilities of the armed forces of the United States. The United States Army Medical Research and Development Command supports extramural research by competitive award of contracts. Those interested in competing for research funding under this supplement can obtain a brochure on the application process by writing to the following address:

**Commander
United States Army Medical Research
and Development Command
ATTN: SGRD-ACQ (BAA)
Fort Detrick
Frederick, Maryland 21702-5012**

This supplement implies no commitment on the part of USAMRDC to support in whole or in part any proposal submitted in response to the contents herein.

GIBCO/BRL...

***A Leader in Biotechnology
Applications to Research and
Industry — currently is seeking
candidates for openings in
these areas:***

**Molecular Biology
Biochemistry
Enzymology
DNA Diagnostics**

As a division of Life Technologies, Inc., GIBCO and BRL are recognized as leading brands in the field of cell and molecular biology research products... and our success in the marketplace has resulted in a number of new professional positions.

They include:

**Group Leader/Instructors for
Workshops, Seminars and
Training Programs**

- Ph.D. in Molecular Biology; excellent written, verbal and communications skills

Scientists/Senior Scientists

- Ph.D. in Biochemistry/Molecular Biology/Molecular Virology and 2-4 years post-doctoral training with enzyme system experience
- Ph.D. in Microbial Genetics or Physiology and 4 years post-graduate experience
- Ph.D. in Molecular Biology and 2-3 years experience in diagnostic product development
- Ph.D. with 2 years post-doctoral experience in molecular biology and immunochemistry

Biochemists/Lab Technicians

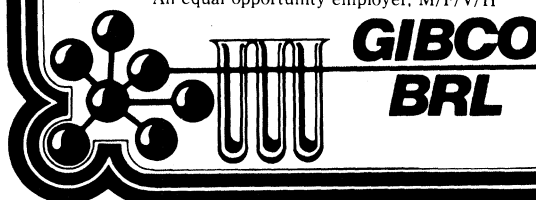
- B.S. or B.S. in Biochemistry, Biology, Chemistry or the Health Sciences; M.S. in some positions helpful and some experience in molecular biology.

Will carry out development work, planning and experiments in laboratories to support present and new products.

Please send resume or C.V. to:

Richard L. Hotaling, Jr., Personnel Manager
Dept. B1
GIBCO/BRL, Life Technologies, Inc.
8717 Grovemont Circle, Gaithersburg, MD 20877
(A suburb of Washington, D.C.)

An equal opportunity employer, M/F/V/H



POSITIONS OPEN

POSTDOCTORAL POSITION available immediately for NIH funded studies of helminth parasite antigens in human filariasis. Work involves antigen analysis and assay development/evaluation. Successful candidate will have recent Ph.D./M.D. with strong biochemical/immunochemical background. Experience in parasitology and hybridoma methodology preferred but not essential. Please send curriculum vitae and three references to: **Gary J. Weil, M.D., Jewish Hospital at Washington University Medical Center, 216 South Kingshighway, St. Louis, MO 63110.**

THE CENTER FOR BLOOD RESEARCH HARVARD MEDICAL SCHOOL HEMATOLOGY— BIOCHEMISTRY RESEARCH

POSTDOCTORAL POSITION available to study intracellular proteolysis in erythropoietic cells of β -thalassemic individuals. Candidate must have recent M.D. or Ph.D. Diligence and honesty essential, experience in protein biochemistry preferred, independence and creativity encouraged. Send curriculum vitae, statement of background and goals, and names of three references to: **Dr. Joseph R. Shaeffer, The Center for Blood Research, 800 Huntington Avenue, Boston, MA 02115.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITION—FISH PHYSIOLOGY. Two-year postdoctoral/research associate position available fall 1988 to participate in study of basis for the rarity of herbivorous fishes in cold temperature waters (**M. H. Horn**, principal investigator). Research will involve experiments on metabolism of seaweed-eating fishes. Background in respirometry required; in data acquisition systems highly desirable; in basic fish and seaweed biology desirable. Salary: \$20,000 to \$22,000 per year. Send letter of interest, curriculum vitae and two letters of recommendation by 15 July 1988 to: **California State University Fullerton Foundation, Mahr House, 800 North State College Boulevard, Fullerton, CA 92634.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION IN MEMBRANE BIOPHYSICS at Harvard Medical School. Several positions are available immediately to study molecular mechanisms involved in blood cell—endothelial cell, blood cell—parasite, and lymphocyte—target cell interactions. Will apply novel biophysical and biochemical techniques to studies of dynamic phenomena mediating membrane-membrane interactions, including lateral mobility, rotational mobility, and distribution of proteins and lipids on the surfaces of individual cells [see *J. Cell Biol.* 103, 819 (1986); *J. Cell Biol.* 105, 1147 (1987); *PNAS* 85, 1844 (1988); *Biochemistry* 27, 2661, (1988)]. Experience in protein chemistry, fluorescence techniques, or instrumentation preferred. Send curriculum vitae, statement of research interests, and names of three references to: **Dr. David E. Golan, Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, 250 Longwood Avenue, Boston, MA 02115.**

POSTDOCTORAL POSITION MICROBIAL GENETICS

Available immediately to study conjugal DNA transfer of broad host-range plasmids. Send curriculum vitae and names of referees to: **Dr. Richard Meyer, Department of Microbiology, ESB 226, University of Texas, Austin, TX 78712-1095.**

Harvard Anaesthesia Center has several **POSTDOCTORAL POSITIONS** available in a team of biophysicists and molecular pharmacologists investigating the membrane actions of anesthetics and neuromodulators involved in pain. Positions are: spectroscopic investigations of lipid-protein interactions; rapid kinetic studies of receptor-mediated ion flux; electrophysiology of sodium channels; patch-clamp and biochemical studies in sensory neurones; tachykinin receptor purification and characterization; synthesis of novel compounds and membrane probes. Appointments will be for 2 years initially. Starting date by negotiation. Interested applicants should contact: **Professor Keith W. Miller, Department of Anesthesia, Harvard Medical School, Massachusetts General Hospital, Boston, MA 02114.** Telephone: 617-726-8985. *Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS

Several postdoctoral positions are available immediately to study tumor suppressor genes and oncogenes in several types of cancer [*Nature* 329, 451 (1987)]. Highly motivated candidates with a background in molecular biology should submit curriculum vitae, a short statement of research experience, and names of three references to: **Dr. Susan L. Naylor or Dr. Alan Y. Sakaguchi, Department of Cellular and Structural Biology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, TX 78284.**

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS CENTER FOR POSTDOCTORAL TRAINING

The University of Oklahoma Health Sciences Center campus is currently recruiting postdoctoral research fellows (M.D. and/or Ph.D.) in a variety of disciplines. Travel funds to visit the campus are available to selected applicants. Three NIH training grants support research in clotting mechanisms, septic shock and tissue injury, and substance use and abuse. Positions are also available in other excellent programs within individual laboratories. The campus is well-equipped, active in research, and growing rapidly. For further information, send curriculum vitae and the names, addresses, and telephone numbers of three references to: **Dr. L. E. DeBault, Center for Postdoctoral Training, P.O. Box 26901, Oklahoma City, OK 73190.**

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS immediately available for developing invertebrate and vertebrate systems to study effects of xenobiotics on immune function. Preference will be given to applicants with backgrounds in immunology or toxicology and interest in invertebrate physiology. Send curriculum vitae and three letters of recommendation by 15 June 1988 to: **Dr. A. J. Goven, Department of Biological Sciences, University of North Texas, Denton, TX 76203.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS are available to collaborate on studies examining the mechanisms of oxidant-induced alterations in endothelial cell membrane structure and function. Positions are for 1 year beginning 1 July 1988, and involve isolation of plasma membrane lipids, preparation of liposomes, and measurement of transmembrane transport and membrane biophysical properties. Background in membrane biology and techniques or lipid biochemistry is desired. Send curriculum vitae and names and telephone numbers of three references to: **Dr. Edward R. Block, J. Hillis Miller Health Center, Box J-225, University of Florida, Gainesville, FL 32610.** Telephone: 904-374-6069.

POSTDOCTORAL POSITIONS

New project involving cell biology, developmental biology, and polymer chemistry with potential clinical applications in transplantation and regeneration.

Candidates to have experience in one or more of the following areas: cell biology, developmental biology, hepatology, chemical engineering, biomedical engineering. Interested individuals should submit current curriculum vitae together with three references to one of the following: **Dr. Joseph P. Vacanti, Harvard Medical School, The Children's Hospital, 300 Longwood Avenue, Fegan 5, Boston, MA 02115** or **Professor Robert S. Langer, Department of Applied Biological Sciences, M.I.T., 77 Massachusetts Avenue, Building E-25, Cambridge, MA 02139.** *An Equal Opportunity/Affirmative Action Employer M/F.*

POSTDOCTORAL POSITIONS available to study the structure and function of muscle filaments and nuclear pore complexes. Experience in electron microscopy and image processing is desirable. Salary: \$18,000 to \$22,000, depending on experience. Candidates who have recently completed their Ph.D. thesis, or expect to do so soon, are particularly encouraged to apply. Send curriculum vitae and names of three references to: **Dr. Ron Milligan, Department of Molecular Biology, MB14, Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, CA 92037.**

POSITIONS OPEN

The Center for Hemostasis and Thrombosis Research, New England Medical Center and Tufts University School of Medicine, invites applications for **POSTDOCTORAL POSITIONS** in the area of molecular biology, cell biology, protein biochemistry and immunochemistry of blood coagulation and of vascular biology.

Faculty interests include:

B. C. Furie—Structure-function relationships of the vitamin K-dependent blood coagulation proteins studied by site-specific mutagenesis and expression of recombinant proteins

B. Furie—Posttranslational processing of the vitamin K-dependent proteins; platelet membrane proteins

D. D. Wagner—Endothelial cell biology; processing and expression of adhesive glycoproteins and their receptors

D. L. Diuguid—Structure-function relationships of mutant blood-clotting proteins to determine the molecular basis of hemophilia

The Center is located in new laboratories and is well equipped with instrumentation for protein sequencing, peptide and DNA synthesis and molecular modeling. Please reply to: **Ms. Colleen Matan, Box 832, Tufts-New England Medical Center, 750 Washington Street, Boston, MA 02111.**

POSTDOCTORAL POSITIONS IN BIOTECHNOLOGY: An interdisciplinary program for development of the biotechnology of bacterial redox enzymes has been established at University of California, Los Angeles (UCLA). The participating departments are chemical engineering, biological chemistry and pharmacology. Individuals with doctoral degrees in the areas of bioorganic, bioinorganic, biochemistry, electrochemistry, cell biology, and biochemical engineering are being sought. Interested persons should send résumé including research directions, along with the names of three professional references to: **Professor Vincent L. Vilker, UCLA Chemical Engineering Department, 405 Hilgard, Los Angeles, CA 90024-1592.** *UCLA is an Equal Opportunity/Affirmative Action Employer.*

TWO POSTDOCTORAL POSITIONS are available in molecular neurobiology: One to study the GABA/benzodiazepine receptor with monoclonal antibodies and recombinant DNA techniques; and a second one to study endogenous modulators of the GABA/benzodiazepine receptor. A background in molecular biology and/or biochemistry is desirable. Please send curriculum vitae and three letters of recommendation to: **Dr. Angel L. de Blas, Department of Neurobiology and Behavior, SUNY Stony Brook, Stony Brook, NY 11794.**

POSTDOCTORAL RESEARCH ASSOCIATE

Position available 1 September 1988 for individual with a Ph.D. in biochemistry. Project concerns intracellular calcium regulation in neurons and includes a biochemical examination of calcium-binding properties of neurofilaments. Applicants with experience in protein isolation techniques preferred. Send curriculum vitae and names of three references to: **Dr. Ron Abercrombie, Department of Physiology, Emory University, Atlanta, GA 30322.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE. USDA-ARS, Kearneysville, West Virginia. A position is available for a molecular biologist to participate in a multidisciplinary research effort (molecular biology, tissue culture, and plant breeding) to improve peach fruit quality through transfer of specific genes. The specific project involves promoter characterization, vector construction and plant transformation experiments for increasing cytokinin levels in developing fruit. The Kearneysville laboratory has all the necessary facilities and is conveniently located near Frederick, Maryland, and Washington D.C. This appointment is for up to 2 years and the salary is \$27,172 (GS-11) or \$32,567 (GS-12). For information on application procedures, contact: **Alice MacNamara, 301-344-8560.** Applications in response to this advertisement should be marked 8N022 and sent to: **Dr. Ann Callahan, USDA-ARS, Appalachian Fruit Research Station, Route 2, Box 45, Kearneysville, WV 25430.** Telephone: 304-725-3451.

As a Vienna-based pharmaceutical research center, we represent an important element in the international drug-discovery effort of the SANDOZ group.

The main focus of our activities is preclinical research in:

IMMUNOSTIMULATION
(cytokines and synthetic compounds)

MONOCLONAL ANTIBODIES
(especially for use in the treatment of tumours)

DERMATOLOGICAL PHARMACOLOGY

ANTI-RETROVIRAL THERAPY

To initiate and supervise new research projects in these fields we are seeking Ph. D. level

IMMUNOLOGISTS
(with a background in cell biology)

DERMATOLOGISTS
(with a background in cell biology, biochemistry or pharmacology)

VIROLOGISTS
(with a background in molecular genetics or biochemistry)

GENE TECHNOLOGISTS

There are several openings on each of these disciplines. For some of the positions a solid medical background (MD) would be advantageous. In addition, we also have a number of vacant positions for Ph. D. level

ORGANIC CHEMISTS

The challenging nature of the scientific tasks calls for researchers with an above-average level of professional expertise. The flexibility of our organisation enables us to employ scientists presently holding positions at different levels of responsibility.

At present, Sandoz Research Institute has some 150 permanent scientific staff that are supplemented by graduate students, post-docs and visiting scientists. Another 90 persons are providing the necessary scientific, administrative and technical support. Provisions have been made for an increasing number of interactions with university groups occupying laboratories at the Sandoz Research Institute site. The institute provides an excellent physical infrastructure including biohazard containment units and generous large animal quarters.

Vienna is a cosmopolitan city offering a fascinating range of cultural events and institutions as well as extensive opportunities for sports and leisure time activities. In terms of science, the city is attracting an increasing number of international enterprises involved in molecular genetics and biotechnology.

This development has led to an expansion of these disciplines at Vienna's universities. A number of the researchers of the SANDOZ Research Institute hold lecture posts at these local universities while others lecture abroad.

Opportunities for a fruitful, intellectually stimulating dialogue are further enhanced by close co-operation with several SANDOZ research units and other leading scientific centers.

If you find our offer attractive and have the necessary qualifications, please submit a written application and CV directly to Dr. Peter Dukor, Managing Director and Head of Research at SANDOZ Forschungsinstitut, Brunner Strasse 59, A - 1235 Vienna, Austria.

SANDOZ

Forschungsinstitut Ges.m.b.H.

Gastrointestinal Diseases Research

The Procter & Gamble Company in Cincinnati, Ohio, is seeking an entry-level Ph.D. physiologist or microbiologist to study the host-parasite interaction for gastrointestinal (GI) infectious diseases. The individual will work in a GI research group interested in understanding the mechanisms of bacterial pathogenesis. Preference will be given to individuals familiar with *in vitro* and *in vivo* models to study mucus production. Good communication skills and the desire to work in an interdisciplinary environment are also important requirements. Postdoctoral experience is desirable but not required. Applicants must be U.S. citizens or permanent residents. Send resume and publication list to:

Dr. T.J. Logan, Manager
Ph.D. Recruiting
GI Disease Research Position, Box S
THE PROCTER & GAMBLE COMPANY
Miami Valley Laboratories
P.O. Box 398707
Cincinnati, Ohio 45239-8707

An Equal Opportunity Employer

Procter & Gamble

Gastrointestinal Research

The Procter & Gamble Company in Cincinnati, Ohio, is seeking an entry-level Ph.D. physiologist, physical pharmacist, chemist, or chemical engineer to work on drug delivery to the GI tract. The individual will work in a GI research group with interest in drug/polymer interactions with mucosal surfaces. Preference will be given to those familiar with gastric physiology models. Good communication skills and the desire to work in an interdisciplinary environment are also important requirements. Postdoctoral experience desirable but not required. Applicants must be U.S. citizens or permanent residents. Send resume and publication list to:

Dr. T.J. Logan, Manager
Ph.D. Recruiting
GI Research Position, Box S
THE PROCTER & GAMBLE COMPANY
Miami Valley Laboratories
P.O. Box 398707
Cincinnati, Ohio 45239-8707

An Equal Opportunity Employer

Procter & Gamble

Ph.D. BIOCHEMISTS MOLECULAR BIOLOGISTS

Bristol-Myers' Wallingford, Connecticut world headquarters for Pharmaceutical Research and Development is a state-of-the-art multi-million dollar setting. Our Department of Cardiovascular Research is seeking highly qualified Biochemists and Molecular Biologists at the Ph.D. level to become part of the drug discovery research team in the atherosclerosis and thrombosis areas. Opportunities for professional and personal growth are exceptional.

Atherosclerosis

Ph.D. in Biochemistry, Molecular Biology or related area. Training in LDL receptors, growth factors, VLDL assembly, or apolipoprotein synthesis. Industrial experience helpful but not necessary.

Thrombosis

Ph.D. in Biochemistry, Pathology, Molecular Biology or related area. Experience in coagulation is desirable. Industrial experience helpful but not necessary.

Successful candidates will receive a highly competitive salary, outstanding benefits, and the opportunity to make an important contribution to a company that's committed to the future. To apply, please send your resume to: **BRISTOL-MYERS COMPANY, Pharmaceutical Research & Development Division, Attn: HR 8, P.O. Box 5100, 5 Research Parkway, Wallingford, CT 06492.**

An Equal Opportunity Employer M/F/H/V



Bristol-Myers Company
Explore With Us.

Director, Hancock Institute of Marine Studies

University of Southern California

Applications are invited for the position of Director of the new Hancock Institute of Marine Studies (HIMS) at the University of Southern California. The HIMS consolidates previously separate organizations of USC to focus efforts in marine research.

The Director will serve as the representative of the University's Marine Programs and be responsible for research conducted in the Institute, University-wide marine projects, the Sea Grant program, and coordination of research programs housed in several departments. The HIMS Director will oversee the management of ship operations, the Catalina Marine Science Center and other marine facilities.

The successful candidate must have an outstanding international reputation as a scientist and a proven record as an administrator. The selectee will be expected to provide imaginative leadership for current and future programs and promote the national and international stature of the institute. The Director should have a successful record of research and teaching and qualification for appointment as a tenured faculty member in an appropriate department.

Applications will be reviewed beginning Jan. 1, 1988, and thereafter until the position is filled. Qualified persons should send a statement of interest and previous experience, curriculum vitae, and list of references to Dr. Robert Friedheim, Chair, HIMS Search Committee, University of Southern California, Los Angeles, 90089-03411.

Candidates are encouraged to apply regardless of gender or ethnic origin. The University of Southern California is an equal-opportunity/affirmative-action employer.

Research Scientists Staff and Post- Doctoral

MERCK SHARP & DOHME Research Laboratories, the world leader in pharmaceutical research, has several positions available at regular Staff and Post-Doctoral levels within the Department of Pharmacology.

M.D. or Ph.D.

The selected candidate will conduct a broad range of experiments within our ongoing antithrombotic, anticoagulant and thrombolytic programs. Substantial experience with in vivo models of thrombosis along with an advanced degree are required.

Post-Doctoral Fellowships

Position -1

Ph.D. in Biochemistry/ Biochemical Pharmacology

The selected candidate will conduct research on the structure and function of proteins containing beta-hydroxyl aspartyl/asparaginyl residues and on the characterization of the enzyme systems responsible for the hydroxylations. Experience in protein chemistry, protein purification, and/or enzymology is preferred.

Position -2

Ph.D. Biochemistry/ Cell Biology

The selected candidate will conduct research on proteins containing beta-hydroxy-aspartyl/asparaginyl residues. Specifically, this individual would study both the regulation of the synthesis and processing of the proteins as well as the regulation of the extent of hydroxylation of the proteins in several cell culture systems (endothelial, hepatoma, recombinant). Tissue/cell culture experience is preferred.

Excellent salary and benefit programs accompany these positions at our modern research facilities located 25 miles northwest of Philadelphia.

Please send resume with salary requirements to:

Manager, Research
Personnel W42-2
Merck Sharp & Dohme
Research Laboratories
West Point, PA 19486
EEO/AA/VH/Employer



Merck & Co., Inc.

SENIOR SCIENTIST

H

offmann-La Roche is an established leader in the pharmaceutical and health care industry, with a strong commitment to biotechnology. The Department of Molecular Genetics provides a stimulating and highly collaborative environment for basic and applied research on prokaryotic and eukaryotic gene expression, lymphokines, cytokines, growth factors and their receptors, oncogenes and other areas with relevance to human pharmaceuticals.

We are seeking a Senior Scientist to be responsible for an exploratory research program specializing in, but not limited to, structure and function studies of cell surface receptors of eukaryotic cells. We are especially interested in a Scientist who has experience in the biochemical characterization of cell surface receptors, and is able to apply hybridoma technology, analytical protein characterization and cell biology techniques in support of our long term goal of identifying and characterizing receptors which have relevance to human pharmaceuticals. Qualifications include a PhD in Cell Biology, Biochemistry, Pharmacology or a related discipline, and a minimum of 2 years of postdoctoral training. Experience in characterization of cell surface receptors or related proteins and hybridoma technology would be preferred.

We are conveniently located in a suburban setting 10 miles from New York City. We offer a very competitive compensation package, and a research environment that encourages scientific growth and publication. For consideration, please send your curriculum vitae and a letter indicating past, current and future research interests, to: **Mrs. Eleanor M. Malone, Department R.C., Hoffmann-La Roche Inc., Nutley, New Jersey 07110.** We are an equal opportunity employer.



Hoffmann-La Roche

Working Today For A Healthier Tomorrow



NATIONAL UNIVERSITY OF SINGAPORE DEPARTMENT OF ORTHOPAEDIC SURGERY RESEARCH FELLOW

Applications are invited for appointment as Research Fellow in the **Department of Orthopaedic Surgery**. Candidates should possess a PhD degree in Biochemistry and preferably have some research experience in biochemistry of soft tissues, cartilage and bone, quantitative morphometry and immunochemical work.

The successful candidate will be required to assist in the running of the biochemistry laboratory in the Department. The appointment may be for up to three years at a time.

Gross monthly emoluments will range from S\$2979 to S\$4779. (US\$1 = S\$2.00 approx.) The commencing salary is dependent upon the qualifications and experience of the appointee.

Leave and medical benefits will be provided. Depending on the type of contract offered, other benefits may include: provident fund benefits or an end-of-contract gratuity, a settling-in allowance of S\$1,000 or S\$2,000, subsidised housing at nominal rentals ranging from S\$100 to S\$216 p.m., education allowance for up to three children subject to a maximum of S\$10,000 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore.

Candidates should write to the **Director, Personnel Department, National University of Singapore, 10 Kent Ridge Crescent, Singapore 0511**, giving their curriculum vitae and the names and addresses of three referees who can comment on their research ability and/or professional competence.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE
positions available in application of techniques of molecular endocrinology to problems related to the biochemistry of reproduction. Current project areas include receptor purification and characterization, synthesis of peptides having functional properties, isolation of naturally occurring gonadal paracrine factors, structure-function studies on glycoprotein hormones, and studies on signal transduction and mechanism of hormone action using cultured cell systems as well as in vivo models. Salaries are negotiable and depend on qualifications and experience. Send curriculum vitae and names of three references to: **Dr. Leo E. Reichert, Jr., Department of Biochemistry, Albany Medical College, Albany, NY 12208.**

An Affirmative Action/Equal Employment Opportunity Employer.

POSTDOCTORAL RESEARCH FELLOWS

Two positions available 1 July 1988. One for the characterization of lymphoid protein subsets associated with malignancy, and the other for the detection of mutations in lymphoid cells resulting from exposure to radiation or chemotherapeutic agents. *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae to: **Dr. Sam M. Hanash, University of Michigan Medical School, Department of Pediatrics, R4451 Kresge I, Box 0510, Ann Arbor, MI 48109-0510.**

NATIONAL INSTITUTES OF HEALTH MOLECULAR BIOLOGY/ TRANSGENIC MICE/ ENDOCRINE DISEASES

POSTDOCTORAL RESEARCH POSITION for M.D., Ph.D., D.D.S., or equivalent, with training in recombinant DNA technology and construction of vectors to work on transgenic mice and endocrine diseases. Candidates with 1 or 2 years of experience preferred. The initial appointment will be for 2 years, with renewals on a yearly basis. Starting salary range, depending on experience, is \$20,000 to \$46,000 per year. *Must be U.S. citizen.* The position is available immediately. Send curriculum vitae and names of three references to: **Dr. Lois Salzman, Assistant Scientific Director, National Institute of Dental Research, National Institutes of Health, Building 30, Room 131, Bethesda, MD 20892.**

NIH is an Equal Opportunity Employer.

POSTDOCTORATES IN PLANT BIOLOGY

Two positions available to study genes/proteins involved in the ubiquitin-dependent proteolytic pathway of higher plants, including *Arabidopsis*. Experience in molecular techniques and enzymology preferred; prior work in plants unnecessary. Send résumé and names of three references to: **Dr. Richard Vierstra, Department of Horticulture and Cellular/Molecular Biology Program, University of Wisconsin, Madison, WI 53706. Telephone: 608-262-8215.**

THE UNIVERSITY OF CHICAGO PROTEIN BIOCHEMIST

Excellent opportunity to work at The University of Chicago's newly created Protein Biochemistry Core Facility. M.S. in chemistry or biochemistry (B.S. will be considered). Prefer 1 to 2 years of protein sequencing and peptide synthesis. Salary (\$22,500 to \$30,000) commensurate with skills plus fringe benefits. Responsibilities will include protein sequencing, using spinning cup and gas phase protein sequencer, peptide synthesis and amino acid analyses. Director of facility will provide some training. Close interaction with faculty and possible personal advancement. Please send curriculum vitae and three letters of recommendation to:

**Stephen C. Meredith
Department of Pathology
The University of Chicago
5841 South Maryland Avenue
Chicago, IL 60637**

The University of Chicago is an Equal Opportunity Employer

Career Opportunities in The Department of ORGANIC CHEMISTRY

BURROUGHS WELLCOME CO., a progressive pharmaceutical company with a top reputation for research, has immediate need for scientists in the following areas:

Leader, NMR Group

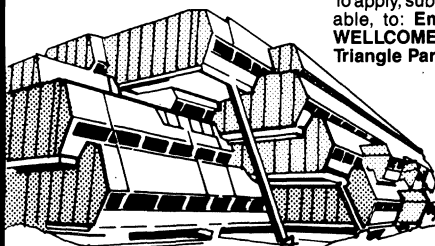
Responsible for the NMR spectroscopy facilities, staff and their structural chemistry support functions for the primary and secondary structure determination of small to intermediate size organic molecules. This position requires a Ph.D. degree (or equivalent) in Chemistry with acknowledged expertise as an NMR spectroscopist and with substantial theoretical and working knowledge of modern 2D NMR techniques. Must have working knowledge (as a hands-on problem solver) of NMR hardware and software. Must have demonstrated ability as an administrator with good interpersonal and communication skills. Previous experience with an understanding of special problems of NMR support work preferred.

Physical Biochemist/Biophysicist

To support research for Wellcome Research Laboratories by the application of optical and/or NMR spectroscopic techniques to the study of drug-membrane interactions, and to supply biostructural/biophysical support for Company research and problems related to products. Applicants must have an M.S. degree in physical chemistry, biochemistry, or a related field, or equivalent experience/training. Familiarity and understanding of modern spectroscopic techniques is required.

BURROUGHS WELLCOME CO. offers a competitive salary, a comprehensive company paid benefit package, and a challenging environment in which to apply your professional capabilities. Qualified Minority, Female, Veteran and Handicapped individuals are encouraged to apply.

To apply, submit curriculum vitae with transcript, if available, to: **Employment Supervisor, BURROUGHS WELLCOME CO., 3030 Cornwallis Road, Research Triangle Park, NC 27709.**



**BURROUGHS
WELLCOME CO.**



Wellcome

An Equal Opportunity / Affirmative Action Employer

ANIMAL SCIENCE RESEARCH

SCIENTIST



Hoffmann-La Roche is a world-renowned company recognized for its strong commitment to research in animal agriculture, with ongoing investigations and discoveries of new methods for altering and improving animal growth performance.

Due to this commitment, we're seeking an individual to join our Animal Science Research Department to conduct research to characterize the effects of growth factors/analogues by bioassay. To qualify, you'll need an MS in Biochemistry, Physiology or a related discipline; demonstrated proficiency in cell culture techniques; and 1-3+ years of experience in bioassay development (e.g. radio-immunoassay, receptor binding assay, automated assay procedures).

You'll enjoy the professional environment and challenges Roche offers, while receiving a highly competitive compensation package. For confidential consideration, please send your resume, indicating salary history and requirements, to: **Frances Newman, Department T.M., Hoffmann-La Roche Inc., Nutley, New Jersey 07110.** We are an equal opportunity employer.



Hoffmann-La Roche

Working Today For A Healthier Tomorrow.

Baxter...

LEADING THE WAY

Baxter Healthcare Corporation's record of excellence encompasses over 30 years of commitment to technology, innovation and quality. Currently, our Hyland Division is seeking similarly-committed individuals to join its staff as Research Scientist and Sr. Research Associate.

RESEARCH SCIENTIST

This individual will participate in pilot-scale production and scale-up process of stroma-free modified hemoglobin for therapeutic application; set up and operate the closed/aseptic chemical reactor for modification of hemoglobin; and take part in development and application of analytical methods concerning the project. The selected candidate must be able to supervise 1-2 technical personnel and assist the group manager in preparing technical documents. Requirements include an M.S. in Chemistry/Biochemistry, with 5 years of relevant industrial experience or Ph.D. in Chemistry/Biochemistry with 2 years of experience. Experience in blood component R&D and Production, along with theoretical and practical knowledge of hemoproteins in general and hemoglobin in particular is helpful. Any experience with immunoassay methods and toxicity analysis techniques is preferred.

SR. RESEARCH ASSOCIATE

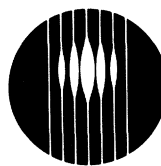
The person selected for this position will set up and operate a set of aseptic/closed process vessels and filtration/ultrafiltration systems and prepare pilot-scale amounts of stroma-free, modified human hemoglobin each month as a function of scale-up process. He/she will also be responsible for maintaining the sterility of this system and improvement of its overall efficiency and further development.

The selected individual will be required to supervise 4 technical workers including assigning tasks, inspection and control, solving routine problems by modification of equipment and methodology. A B.S. in Chemical Engineering, Chemistry, or Biology plus 5 years of relevant industrial experience or M.S. in Chemical Engineering, Chemistry, or Biology and 3 years of experience is mandatory. Background in preparation of blood products and GMP is desirable.

Baxter offers the selected candidates a friendly, stable work environment with room to grow both personally and professionally, as well as attractive benefits and compensation plans. For immediate consideration, please send a resume with salary history to: **Baxter Hyland Division, Ms. Vickie Thrasher, 4501 W. Colorado Blvd., Los Angeles, CA 90039. PRINCIPALS ONLY, PLEASE.** Equal Opportunity Employer.

Hyland Division

Baxter



CSIRO
AUSTRALIA

Biochemical Geneticist Senior Research Scientist/ Principal Research Scientist

A\$36,421 p.a. - A\$49,256 p.a.
**Division of Fisheries Research
Marine Laboratories,
HOBART, TASMANIA**

FIELD: Fisheries Research/Population genetics

THE DIVISION: The Divisions of Fisheries Research and Oceanography collectively form the CSIRO Marine Laboratories, which is Australia's principal marine research institution. The Division of Fisheries Research undertakes studies into the biology, ecology and population dynamics of marine populations (both plant and animal) and supplies information for the development of management strategies for fisheries within the Australian Fishing Zone. The Division currently employs about 140 staff of whom 80 are professional research staff with its main laboratory in Hobart and smaller laboratories in Perth and Brisbane. The Division charters a 53m research vessel which is due for replacement in 1989.

THE WORK: The Fisheries Resources programs of the Division are carried out around the continent (south and south-east from Hobart, north and north-east from Brisbane, west and north-west from Perth). Current subprograms include studies on fish taxonomy, reproductive biology, ecology, population dynamics, exploratory fishing, stock assessment and environmental protection. Fisheries under investigation include the south-east trawl (with special reference to the orange roughy) scallops, northern multi-species demersal fisheries, northern pelagic fisheries and the southern bluefin tuna. It is expected that the Division will be carrying out exploratory and developmental work on the fisheries of the western and north-western deep water.

THE JOB: The appointee will plan and carry out research on the population genetics of Australia's commercially exploitable fisheries resources. Arrangements for support staff will be finalized after discussions with the successful applicant. The research will aim at complementing that of other research groups within the Division, and would be expected to provide input into programs examining problems of species identification, stock delimitation, stock recruitment relationships, and growth. The appointee would also be expected to liaise with other groups and organisations responsible for fisheries research and management, and to prepare collaborative grant proposals aimed at solving fisheries problems which relate to this field of expertise.

THE PERSON: Applicants should hold a PhD or equivalent qualifications in genetics with at least six years postdoctoral research experience in population genetics including at least five years in fisheries or wildlife research together with demonstrable (through publications) research ability. Suitably qualified applicants of outstanding calibre but with less relevant experience could be considered for appointment at a lower level.

LOCATION: The appointee will be located at the Marine Laboratories in Hobart.

CONDITIONS: Appointment will be for a term of three years with the possibility of conversion to an indefinite appointment. Australian Government superannuation benefits are available.

MORE INFORMATION: Prospective applicants are invited to telephone Dr P.C. Young (002) 20 6222 for further information. A copy of the detailed job description and selection criteria can be obtained from Mr I. St George on (002) 20 6222.

APPLICATIONS: Applications should be submitted by 17 June 1988 and quote reference number FC88/2. They should be framed against the selection criteria and should state relevant personal particulars including details of qualifications and experience. Applicants should nominate at least two professional referees, and address their applications to:

The Chief
CSIRO Division of Fisheries Research
GPO Box 1538
Hobart, Tasmania. 7001 (Australia)

CSIRO IS AN EQUAL OPPORTUNITY EMPLOYER



CHAIRMAN

BIOCHEMISTRY/MOLECULAR BIOLOGY

The University of Miami School of Medicine is seeking applications and nominations for the position of **Professor and Chairman of the Department of Biochemistry and Molecular Biology**. The person filling this position will have the unique opportunity to lead a well recognized and already established department and to greatly expand the department's capabilities in the area of **molecular biology**. Funds for the development of the department are available through a generous award from the Lucille P. Markey Charitable Trust. In addition to funding the new chairman, these funds will be used to support multiple new investigators, as start-up funds for new equipment, and for the renovation of laboratories. Additional space will be provided in a new building currently under construction, to be completed by early 1989. The department includes 18 faculty members with full-time primary appointments and a well-established graduate program with 35 trainees.

The applicant must have a Ph.D., M.D., or equivalent degree, be internationally recognized for contributions to molecular biological research, be committed to educational activities, and clearly demonstrate leadership and administrative capabilities. The successful candidate is expected to be an outstanding scientist with an ongoing, independent and well-funded research program. This person will be expected to promote the molecular biological research capabilities of the Department, the Medical School and the University, to recruit outstanding scientists to the faculty, and to enhance the teaching programs of the departments.

Interested applicants should submit a curriculum vitae including the names of 3 references to: **Dr. James D. Potter, Dept. of Pharmacology, University of Miami, P.O. Box 016189, Miami, FL 33101.**

An Equal Opportunity/Affirmative Action Employer.

SCIENTISTS AND ASSISTANT SCIENTISTS PEPTIDE CHEMISTRY

BACHEM Bioscience, Inc. is the US subsidiary of BACHEM Switzerland. We are a young, dynamic and growing company; a leader in the field of biologically active peptides. We are expanding our peptide chemistry group and have openings for Scientists and Assistant Scientists in peptide chemistry.

Successful candidates must have a **Ph.D., M.S., or B.S.** in peptide chemistry or a related field with experience in solid phase synthesis, purification and renaturation of peptides and proteins, HPLC, molecular modeling and new drug design.

Interested candidates send their curriculum vitae with references and salary history to:

BACHEM Bioscience, Inc.
3700 Market Street
Philadelphia, PA 19104

PUBLIC HEALTH SERVICES NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

STAFF FELLOW

(Salary Range \$20,000 - \$38,753)

Less than 3 years postdoctoral research experience)

SENIOR STAFF FELLOW

(Salary Range \$24,000 - \$43,452)

3-7 years postdoctoral research experience)

A postdoctoral position is available in the Yeast Genetics/Molecular Biology Group of the Cellular and Genetic Toxicology Branch, Division of Toxicology Research and Testing, NIEHS, located in Research Triangle Park, North Carolina. The activities of the Group are directed towards understanding mechanisms of repair, recombination, mutagenesis, chromosome distribution and consequences of external perturbations. Selectee will participate in ongoing programs directed at studying various aspects of chromosomal metabolism in mitotic and meiotic cells, primarily yeast, and will also develop an independent research program.

The initial appointment is for two years, with additional extensions possible for talented researcher. Applicants should possess a record of demonstrated research productivity, the ability to carry out both independent and collaborative research and a Ph.D. or equivalent degree and postdoctoral experience in Genetics, Molecular Biology, Biochemistry or closely related field. Should be U.S. Citizen.

For additional information contact Johnny McLean or Emily Starnes at 919-541-7513. To apply, send curriculum vitae and the names of three references by 6/24/88 to:

Johnny L. McLean (Code HNV56)
NIEHS Personnel Office
P.O. Box 12233
Research Triangle Park, NC 27709

AN EQUAL OPPORTUNITY EMPLOYER

THE STATE UNIVERSITY OF NEW JERSEY

RUTGERS

DEPARTMENT OF BIOLOGICAL SCIENCES FACULTY POSITIONS

The Department of Biological Sciences, Rutgers University invites applications for three tenure-track faculty positions at the level of assistant or associate professor. These positions represent the continuing development within our faculty of a strong integrated research concentration in cellular and molecular biology. The details of these positions are as follows:

CELL BIOLOGY. We seek a scientist with research interests and experience in the molecular genetics and biochemistry of eukaryotic cells. The successful candidate will join a strong nucleus of cell biologists already within the Department and University. (Dr. Alice Liu, Search Committee Chairperson).

MAMMALIAN CELLULAR/MOLECULAR BIOLOGIST. A position is available for someone desiring to pursue a research program involving molecular/biochemical studies on the regulation of gene expression in mammalian cells, with a focus on functions implicated in transformation, proliferation, metastasis or cell-cycle phenomena (Dr. David Denhardt, Search Committee Chairperson).

DEVELOPMENTAL NEUROBIOLOGY OR DEVELOPMENTAL GENETICS. We are particularly interested in individuals using molecular and cellular approaches as applied to the areas of developmental neurobiology and/or the genetic regulation of development. Other areas of modern development biology will also be considered. (Dr. Howard Passmore, Search Committee Chairperson).

The successful candidates for these positions will be expected to develop and sustain a strong research program and to contribute to departmental teaching. Terms of appointment are competitive and will provide an excellent opportunity to develop an independent research program. The positions will be available as of January 1, 1989 with flexibility in the actual start date of appointment. Send curriculum vitae, a description of research interests, and the names of at least three references to the chairperson of the appropriate search committee as listed above, PO Box 1059, Piscataway, NJ, 08855.

Rutgers is an equal opportunity/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**

Postdoctoral Scientist

The Investigative Toxicology and Immunology and Antiinfectives Therapy Departments of Smith Kline & French Laboratories, located in suburban Philadelphia, are seeking a Postdoctoral Scientist to conduct quantitative cytometry on proliferative rodent lesions and to study the molecular mechanisms involved in the formation of these lesions. The appointment is for one year, renewable for a second year on mutual agreement.

The successful candidate will:

- correlate DNA content (ploidy) as measured by adherent cell cytometry and flow cytometry with the proliferative activity of rodent lesions as determined by histologic and morphometric criteria.
- compare oncogene expression of spontaneous and drug-induced proliferative rodent lesions.
- study the intracellular oncoprotein distribution in tissue sections prepared from proliferative rodent lesions.

Candidates should have:

- Ph.D. in Cell Biology or related discipline with 0-3 years postdoctoral experience.
- Knowledge of quantitative cytometry and molecular biology.
- Excellent verbal and written communication skills.

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. Please forward your C.V. and the names of three references to: Marianne J. Shandy-C0048, Smith Kline & French Laboratories, Research & Development, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

SK&F
A SmithKline Beckman Company

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



CASE WESTERN RESERVE UNIVERSITY Dean of Mathematics and Natural Sciences

Case Western Reserve University invites nominations and applications for the position of Dean of Mathematics and Natural Sciences. This is a new position, currently filled by an interim appointee. A permanent appointment will be made as soon as the search process reaches a conclusion.

The Dean will be responsible for providing academic leadership for the faculty of Mathematics and Natural Sciences, and for developing the faculty, staff, and financial resources needed to sustain high standards in teaching, research, and scholarship. Specific responsibilities include review of all recommendations for appointment, promotion, and tenure, with an active role in faculty recruitment; establishment and management of expense budgets for the Mathematics and Natural Sciences departments within the overall budgetary framework of the Colleges; development of curricular and research initiatives; program planning and evaluation; and active participation in fund-raising and strategic planning. The Dean reports administratively to the Dean of the Colleges, but coordinates as well with the Provost and the deans of the professional schools on a number of academic matters.

The faculty of Mathematics and Natural Sciences consists of 90 full-time faculty in departments of Astronomy, Biology, Chemistry, Geological Sciences, Mathematics and Statistics, and Physics. A successful candidate should hold a terminal degree in one of these disciplines and be eligible for a senior, tenured faculty appointment. Other qualifications include a successful record of achievement in teaching, research, and administration, with a demonstrated commitment to excellence. Applicants should send a letter of interest, along with a current curriculum vitae and the names of three or more references, to: Search Advisory Committee for the Dean of Mathematics and Natural Sciences • c/o Vice President Richard E. Baznik • Case Western Reserve University • Adelbert Hall, Room 26 • Cleveland, OH 44106.

Review of candidates will begin immediately, although applications and nominations will be received until the position is filled.

In employment, as in education, Case Western Reserve University is committed to equal opportunity and affirmative action.

U.S. Department of Energy

POSTGRADUATE RESEARCH PROGRAMS

Toxicology	Engineering
Fossil Energy	Physical Sciences
Hazardous Wastes	Environmental Sciences
Economics/ Energy Policy	Life Sciences
Artificial Intelligence	Computer Sciences

- Research at national laboratories
- Stipends \$19–35,000 depending on degree, program, research area
- Recent graduate degree
- U.S. citizens or PRAs eligible
- Information



Postgraduate Research Programs
University Programs Division
Oak Ridge Associated Universities
P.O. Box 117
Oak Ridge, TN 37831-0117
(615) 576-3190



OKLAHOMA MEDICAL RESEARCH FOUNDATION

Postdoctoral fellowship positions are available in the Cardiovascular Biology Research Program at the Oklahoma Medical Research Foundation. The program centers on cell-mediated events that regulate blood coagulation with emphasis on inflammatory mediators. A multidisciplinary approach is available that provides experience in one or more of the following areas: protein chemistry, physical chemistry, physiology, molecular biology, and the cell biology of platelets and endothelial cells. Fellows are encouraged to participate in collaborative projects within the group. The laboratories are located in a new building with excellent facilities. Core services include peptide and oligonucleotide synthesis, gas phase microsequencing, direct access to a VAX computer network for analysis of DNA and protein sequences, molecular graphics, fluorescence imaging and spectroscopy, scanning and reaction titration calorimetry, endothelial and hybridoma cell culture laboratories, electron microscopy, and flow cytometry. Positions are currently available with **Drs. Philip Comp, Charles and Naomi Esmon, Rodger McEver, Peter Sims, Fletcher Taylor, or Therese Wiedmer**. Applicants should send C.V.s and references to any of the above investigators at the

**Cardiovascular Biology Research Program
Oklahoma Medical Research Foundation
825 N.E. 13th St.
Oklahoma City, OK 73014.**

OMRF is a private, non-profit, equal opportunity employer located adjacent to the University of Oklahoma Health Sciences Center. Salaries are competitive and commensurate with experience.

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**

ADVANCED LIGHT SOURCE

Lawrence Berkeley Laboratory

Call for Letters of Interest

The Advanced Light Source, a national user facility at the Lawrence Berkeley Laboratory for the production of high-brightness, partially coherent X-ray and ultraviolet (XUV) synchrotron radiation, is scheduled to begin serving users in the fall of 1992.

LBL is now seeking initial expressions of interest from users who plan to participate in the instrumentation of ALS beamlines as members of:

- An Insertion- Device Team (IDT)
- A Bending-Magnet Team (BMT)

Letters of interest are encouraged from:

- Groups of Scientists
- Institutions
- Individual Scientists

LBL will be pleased to assist in the formation of multi-institutional groups in various areas of research by matching scientists with like interests.

The earliest beamline decisions will be made by September 1, 1988. Those who wish to submit letters of interest should write to:

Arthur L. Robinson, Assistant Scientific Director
Advanced Light Source
80-101
1 Cyclotron Road
Berkeley, CA 94720



LAWRENCE
BERKELEY
LABORATORY

POSITIONS OPEN

RESEARCH ASSISTANT— MOLECULAR NEUROBIOLOGY

The Jackson Laboratory, a center for mammalian genetics research located on the coast of Maine, has an immediate opening for a research assistant with an M.S./M.A. in the biological sciences or a B.S./B.A. with relevant experience. This position offers an opportunity for active and original participation in a research program directed at understanding the roles of specific cell adhesion molecules and the genes which encode them, in normal and abnormal development of the nervous system. Laboratory duties include DNA/RNA preparations, Southern/Northern/in situ hybridization, gene cloning in expression vectors, and tissue culture. Please send curriculum vitae, transcripts, and three letters of reference to: **Harold Wheeler, Employment Manager, The Jackson Laboratory, 600 Main Street, Bar Harbor, ME 04609. Telephone: 207-288-3371. Affirmative Action/Equal Opportunity Employer/M/F.**

RESEARCH ASSISTANT

Research assistant professor for Basic Science Research in Surgical Research Laboratory. Requirements should include previous experience in research laboratory, M.D. or Ph.D. degree in pharmacology. Send résumé to: **Clinical Business Manager, Box 181, Department of Surgery, University of Virginia Medical Center, Charlottesville, VA 22908. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE

The Department of Pharmacology, SUNY/Health Science Center at Syracuse wishes to hire an M.D. or Ph.D. with experience in nonlinear dynamics and cellular and subcellular cardiac electrophysiology. One goal is to study dynamically complex arrhythmias and rate-dependent block processes in heart tissues, in experiments and computer simulations. Background in nonlinear mathematics and chaos theory as well as experience with electronics and computer hardware and software are required. Please send complete curriculum vitae and list of three references to: **Dr. Donald C. Michaels, Department of Pharmacology, SUNY/Health Science Center, 766 Irving Avenue, Syracuse, NY 13210. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE

The Laboratory of Genetics, The Rockefeller University, solicits applications for the position of research associate. Applicants must have a Ph.D. in molecular biology and a minimum of 4 years of postdoctoral experience with the molecular biology of *Drosophila* neurogenesis. A strong record of publications in this area is necessary to demonstrate potential for independent research. The successful applicant will also participate in ongoing projects involving receptor protein biochemistry. One to 2 years of experience in this area is also required. Competitive salary and benefits are available. For consideration send curriculum vitae and the name of three references to: **Dr. Michael Young, The Rockefeller University, 1230 York Avenue, New York, NY 10021. An Equal Opportunity Employer.**

RESEARCH ASSOCIATE: Developmental neurobiology laboratory in university-affiliated institute seeks Ph.D. with experience in biochemistry/molecular biology to work on neural growth factors and related problems. Opportunity for independent program development. Send curriculum vitae and names of three references to: **Dr. Emanuel D. Pollack, Institute for the Study of Developmental Disabilities, 1640 West Roosevelt Road, Chicago, IL 60608. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE AND POSTDOCTORAL FELLOW with experience in molecular biology and nucleic acid biochemistry are needed for research on molecular mechanisms of mutation using purified replication proteins. Send applications to: **Dr. Navin Sinha, Waksman Institute, Rutgers—The State University of New Jersey, P.O. Box 759, Piscataway, NJ 08855. Rutgers is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

RESEARCH ASSOCIATE/STATISTICIAN

Applications sought for a research associate/statistician (nontenure-track) in the College of Pharmacy and Pharmaceutical Sciences, Florida A&M University. This position will be filled as soon as possible. Applicants must have a Ph.D. in statistics with experience in experimental design, research methodology, and statistical evaluation. The successful applicant will be expected to establish his/her research program through competitive grants; to provide instruction in statistics for professional and graduate students; and to assist in strengthening grant proposals. The salary of this position is competitive.

Please submit curriculum vitae and three letters of recommendation no later than 30 July 1988 to: **Dr. J. L. Early, Dean, College of Pharmacy and Pharmaceutical Sciences, Florida A&M University, Tallahassee, FL 32307.**

Florida A&M University is an Equal Opportunity/Equal Access University.

RESEARCH ASSOCIATE II

Narragansett Bay Project GIS Applications Manager. Ground Water Resource GIS Applications Manager. Two positions are available in coordinating application for the Rhode Island Geographic Information Systems Project. The Ground Water Resource GIS Applications Manager (190277) will be responsible for conducting GIS analyses in ground water mapping and protection for the State of Rhode Island. The Narragansett Bay Project GIS Applications Manager (190274) will be responsible for conducting GIS analyses for Narragansett Bay Project scientists and policy analysts. Both positions will work at the Environmental Data Center in the Department of Natural Resources Science. Applicants must have a Master's degree, 2 to 3 years of experience in a field relevant to the position and experience in Geographic Information Systems. Funding for both positions is available until 1 October 1990. Applicants should send a letter of application, résumé and the names, addresses, and telephone numbers of three references by 10 June 1988, to: **Dr. Peter August, Search Coordinator, Research Associate II (Ground Water 190277) Position or Research Associate II (Narragansett Bay Project 190274) Position, The University of Rhode Island, P.O. Box G, Kingston, RI 02881. An Affirmative Action/Equal Opportunity Employer.**

RESEARCH INSTRUCTOR/RESEARCH ASSISTANT PROFESSOR—The Division of Cardiovascular Disease seeks an applicant for a non-tenure track position to participate (i) in the training of cardiology fellows in molecular biological approaches and techniques and (ii) in an ongoing research program to study the regulation of contractile protein genes. The successful applicant will have the opportunity to develop an independent research project in the future. A Ph.D. in a biological science and postdoctoral experience in molecular biology required. Salary is commensurate with experience. **POSTDOCTORAL POSITION**—available for Ph.D. in biochemistry/molecular biology/or cell biology interested in studying the structure and function of myofibrillar proteins, and the regulatory mechanisms directing expression of those genes in cardiac and skeletal muscles. Experience with protein purification, tissue culture, and molecular biological approaches and techniques desirable. Send curriculum vitae and names of two references to: **Dr. Patrick Umeda, University of Alabama at Birmingham, Division of Cardiovascular Disease, Room 311 THT, UAB Station, Birmingham, AL 35294. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH INVESTIGATOR AND POSTDOCTORAL FELLOW—The positions are available immediately to study the structure and hormonal control of eukaryotic genes. Applicants must have a Ph.D. or an M.D. degree with training in reproductive endocrinology and experience with recombinant DNA or protein purification techniques. Minimum of 3 years of postdoctoral training in molecular biology is required for the Research Investigator's position. Send curriculum vitae and the names of three references to: **Dr. Olli A. Janne, Associate Division Director, Center for Biomedical Research, The Population Council, 1230 York Avenue, New York, NY 10021.**

POSITIONS OPEN

RESEARCH MANAGER COMPUTER SIMULATION/ TOXICOLOGY

Northrop Services Inc-Environmental Sciences has an immediate opening for an individual to lead a research group (three Ph.D.'s, four B.Sc.'s) developing biologically-structured computer simulation models for use in toxicological research and testing at their Toxic Hazards Research Unit in Dayton, Ohio. Laboratory validation studies are a significant part of the overall effort. The successful candidate will have a documented record of research accomplishments with experience in computer simulation and research management.

Interested individuals should send curriculum vitae together with names and addresses of three references to:

**Ms. Lois Doncaster
Human Resources
Northrop Services, Inc.
Environmental Sciences
101 Woodman Drive, Suite 12
Dayton, OH 45431**

Northrop Services, Inc. is an Equal Opportunity Employer.

RESEARCH MICROBIOLOGIST (BIOCHEMISTRY/GENETICS) GS-13 \$39,501 to \$51,354

A position is available at the U.S. Environmental Protection Agency (EPA) Environmental Research Laboratory in Gulf Breeze, Florida, for a Ph.D. research microbiologist specializing in microbial biochemistry and genetics and responsible for coordinating and supervising research in the biodegradation of pollutants and hazardous wastes. Qualified individuals should have expertise in biodegradation and have familiarity with microbial enrichment techniques, gene and plasmid transfer, mechanisms of gene regulation and elucidation of metabolic pathways.

EPA is an Equal Opportunity Employer. Applicants must be U.S. citizens. Send a completed Federal Standard Form 171 (available from Federal offices and curriculum vitae postmarked by 8 July 1988 to:

**EPA Personnel Office
P.O. Box 98516
Las Vegas, NV 89193-8516**

RESEARCH OPPORTUNITIES—Postdoctoral fellow—research technician: The Molecular Biology of Retroviruses Research Laboratory at the Sloan-Kettering Institute seeks additional staff personnel to participate in a series of immuno-related projects. Prior training and experience in cell and tissue culture techniques, immunologic assays, and/or mouse tumor biology is essential. If interested, please submit résumé or curriculum vitae to: **Mr. E. L. Kleinert, Employment Department #553, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Equal Opportunity Employer, M/F/H/V.**

RESEARCH SCIENTIST—Ph.D. (chemistry, biochemistry or pharmacology) sought to organize and operate the biochemical and pharmacological laboratory of the Department of Anesthesiology. Highly collaborative individual needed with good supervisory skills. Knowledge of and experience with assays for muscle relaxants, narcotics, hormones (especially catecholamines), substrates and nitrogen balance. Experience with HPLC, TLC, GC, and RIA. Candidate's area of research and publications would be in pharmacokinetics, pharmacodynamics or muscle relaxants and narcotics, substrates and hormonal responses to surgical stress and related areas. Apply with curriculum vitae to: **Dr. Richard Matteo, Department of Anesthesiology, Columbia University College of Physicians and Surgeons, P & S Box 46, New York, NY 10032.**

RESEARCH SCIENTIST to conduct drug studies in cancer research. Advanced degree in biochemistry/pharmacology required, as well as 3 years of experience in the following: drug metabolism, mechanism of action, analyzing drugs using high performance liquid chromatographic, flow cytometric, and enzymatic techniques. Salary: \$22,000 per year; 40 hours per week. Contact: **The Job Service at P.O. Box 82, Winston-Salem, NC 27102 or the Job Service office nearest you. Refer to Job Order Number NC 7904106.**

Glaxo's Growth Is Your Opportunity

Glaxo Inc. is not only one of the Top 10 ethical pharmaceutical firms in America, we're also the fastest growing research-oriented company in the country. As such, we can offer exceptional career opportunities, state-of-the-art facilities, and a firm commitment to producing the most effective pharmaceuticals that experience, imagination, and advanced technology can create. Join Glaxo, and apply your knowledge and career ambitions where they'll do you the most good.

We currently have the following position available at our Corporate Headquarters located in Research Triangle Park, N.C.

RESEARCH GROUP LEADER New Product Development

Within our Clinical Pharmacokinetics/Bioanalytical Department, this person will be responsible for a methods development group which concentrates on improving and establishing bioanalytical procedures to use on marketed and new chemical entities from Glaxo Research and transferring these new methods to analysts which support the Clinical Development and Research program. While supervising 2-3 research scientists on independent research based or method development projects, this individual will assist in problem-solving chromatographic problems involving method development and study proper analysis projects.

Background must include a Ph.D. in Analytical Chemistry or a related area with 3-5 years' experience in the pharmaceutical industry or academia. A strong chromatography background with excellent problem solving skills are required, as well as experience with a variety of chromatography techniques (e.g. EC/LC, HPTLC, GC, GC/MS and RIA). Computer literacy using micro and mainframes and experience using various data acquisition systems (MAXIMA, NELSON, LAS, etc.) and software is required.

At Glaxo Inc., growth opportunities and up-to-date facilities are complemented by a location (near Raleigh/Durham) that has excellent resources in close proximity. Prestigious universities, scenic vistas, lively recreational areas, and exciting cultural opportunities are all a part of the daily life of the Glaxo professional. Further, we reward talent and creativity with an excellent salary and benefits package (including a completely equipped, on-site athletic facility). Candidates interested in this position, please send resume, including salary history, to:

**Human Resources Department
Job #8620X830**

Glaxo Inc.

PO Box 13398
Research Triangle Park, N.C. 27709
(No Phone Calls, Please)
No Private Agency Referrals, Please
An Equal Opportunity Employer M/F/H/V

Paving the way to a healthier world.



JPL/NASA VISITING SENIOR SCIENTISTS

SPACE PHYSICS DIVISION

The Jet Propulsion Laboratory invites applications to its Visiting Senior Scientist Program in the following areas:

Ionospheric and Magnetospheric Physics

We are accepting applications for senior scientists in the area of magnetospheric and/or ionospheric physics to serve as Discipline Scientists at NASA Headquarters in Washington, D.C. The successful applicants will be involved in the formulation of strategies and implementation of plans and programs for the recently formed Space Physics Division, which includes branches in both ionospheric and magnetospheric physics.

These branches cover the areas of solar-terrestrial and space plasma physics, including activities in the U.S. as well as collaborations with international organizations. Current branch responsibilities include oversight of Research and Analysis Programs, operating satellites (San Marco, International Cometary Explorer, Dynamics Explorer, AMPTE/CCE and IMP-8), the Sounding Rocket Program, and programs in planning including the International Solar-Terrestrial Physics Program (ISTP) and use of the Space Station. A PhD (or equivalent research experience) in space plasma physics or a closely related discipline with 3 years' experience in a NASA sponsored research program is required. For more information about the scope of the program and position responsibilities, contact Dr. Stanley D. Shawhan, (202) 453-1676. Deadline for application is July 15, 1988. Refer to Dept. U60.

Solar Physics Branch

The Space Physics Division at NASA headquarters is seeking an individual with a background in solar physics to aid in the development and coordination of the NASA solar physics research and technology efforts. NASA's solar program addresses all aspects of contemporary solar physics, ranging from the Sun as a representative star to the Sun as the object that generates the Earth's space environment as well as the development of advanced instrumentation for space and balloon-borne solar missions.

As a Staff Scientist in the Solar Physics Branch at NASA Headquarters, the incumbent will provide lead responsibility for the administration of the Solar Physics Supporting Research and Technology, Data Analysis, and Suborbital Programs. In addition, the incumbent will serve as a recognized expert in solar physics for the structuring of NASA programs, and in relating those programs to not only the overall needs of the U.S. scientific community but to those of collaborating foreign nations as well. Frequent travel and residence in the Washington, D.C. area will be required. This position is open for immediate filling. Refer to Dept. U56.

Tenured faculty members are the preferred choice although qualified individuals from non-profit research institutions may also be considered. Normal assignment in the Visiting Senior Scientist Program does not exceed two years. Appointees must be U.S. Citizens or Permanent Residents and are expected to return to their home institution following the NASA assignment. Please provide curriculum vitae, bibliography and the names of four references, indicating area of interest and department number, to:

**Dr. Harry Ashkenas 180-900
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, California 91109
(818) 354-8251**

An Equal Opportunity Employer

POSITIONS OPEN

SENIOR SCIENTISTS

Sandoz Crop Protection is seeking a Ph.D. biochemist, preferably with postdoctoral experience, in the area of peptide/protein isolation and sequencing. Preference will be given to applicants with experience in microisolation of neuropeptides. Background in other aspects of peptide/protein biochemistry, such as processing, transport, or metabolism are also desirable. For consideration, please send your curriculum vitae and letter of interest to: **Sandoz Crop Protection Corporation, Zeecon Research Institute, Human Resources Department, 975 California Avenue, Palo Alto, CA 94304-1104. Affirmative Action/Equal Opportunity Employer.**

SUPERVISORY NEUROSCIENTIST

The U.S. Army Medical Research Institute of Chemical Defense is seeking a neuroscientist, GM-14, (physiologist, pharmacologist, or psychologist) to serve as Chief of the Neurotoxicology Branch, Pathophysiology Division. Responsibilities include planning and supervising the research programs and research assignments of fifteen to twenty civilian and military personnel and contractors concerned with investigations of the mechanisms of action on neural substrates of chemical agents, such as anticholinesterase inhibitors, and/or neurotoxic threat agents. The goal of these research initiatives will be the development of effective medical treatment regimens for threat agents. Qualified applicants should have an extensive and varied professional background in electrophysiology, neuroanatomy, neurophysiology, neuropharmacology, statistics, biophysics, computers, experimental psychology and neurotoxicology as well as experience in multidisciplinary research program planning and administration. The ideal candidate will have a Ph.D. in one of the basic animal sciences, physiology, pharmacology, psychology, or a closely related discipline. Salary range: \$46,000 to \$60,000. *U.S. citizenship is required and must be able to obtain a security clearance.* Send résumés by 1 July 1988 to: **Commander, U.S. Army Aberdeen Proving Ground. Attention: STEAP-PA-CR-D (Ms. Bynum), Aberdeen Proving Ground, MD 21005-5001. Equal Opportunity Employer.**

PRE-ANNOUNCEMENT—UNIT LEADER

This is a pre-announcement for the position of unit leader at the Texas Cooperative Fish and Wildlife Research Unit. The position will be announced through the Office of Personnel Management. Expertise is desirable in one of the following fields: Fisheries ecology and management, aquatic ecology (limnology, aquatic contaminants, etc.), predator/furbearer ecology and management, or endangered species ecology. The unit leader (with extensive experience beyond the Ph.D.) guides and directs an intensive multidisciplinary program of research and graduate training with one assistant leader in fisheries science and one assistant leader in wildlife science. The leader will also be expected to teach one course per year and prepare refereed publications. The application period will be only 5 days. Therefore, please have an updated SF-171 prepared to send to the appropriate OPM Office. Applicants should send curriculum vitae, three letters of recommendation, and a cover letter detailing specific qualifications for this position to: **Dr. Henry A. Wright, Department of Range and Wildlife Management, Texas Tech University, Lubbock, TX 79409. Telephone: 806-742-2481.**

VERTEBRATE BIOLOGY: Cumberland College a private, church-related, liberal arts college, invites applications for a tenure-track position to begin in August 1988. Courses taught will include comparative vertebrate anatomy, vertebrate field biology, comparative physiology, and human anatomy and physiology as well as freshman-level general biology. Special topics courses in area of interest may be developed. This position requires a strong commitment to undergraduate education. It is expected that the individual, in addition to classroom teaching and student advising, will exhibit continued professional growth. Ph.D. required. Send letter of application, curriculum vitae, copies of transcripts, statement of teaching philosophy, and three letters of reference to: **Dr. Joseph E. Early, Academic Dean, Cumberland College, Williamsburg, KY 40769. Deadline: 10 June 1988.**

POSITIONS OPEN

TEACHING POSITIONS IN BIOLOGY AND PHYSICS ILLINOIS MATHEMATICS AND SCIENCE ACADEMY "A Pioneering Educational Community"

Biology—Two Positions. Each individual must be able to teach a college-level general biology course as well as one or two of the three elective courses Ecology, Introductory Genetics, and Human Biology. Knowledge of molecular/cell biology would be helpful.

Physics. Must be able to teach an algebra-based college level general physics course to highly gifted 10th grade students. The course emphasizes problem-solving and exploration, and requires flexibility and creativity from the instructor. Experience in research, directing student research, and computers is recommended. In addition applicants should be able to teach one or more of the following elective courses: electronics, astrophysics, modern physics, and observational astronomy.

The Academy is a 3-year residential school which offers college-level courses to high school students highly gifted in mathematics and science. The Academy is 40 miles west of Chicago. Applications can be obtained from:

**Illinois Mathematics and Science Academy
1500 West Sullivan Road
Aurora, IL 60506
An Equal Opportunity Employer**

TENURE-TRACK FACULTY POSITION DEPARTMENT OF METALLURGICAL ENGINEERING AND MATERIALS SCIENCE CARNEGIE MELLON UNIVERSITY

The Department has openings for faculty members at the assistant, associate, or full professor level, and is seeking prospective candidates. Desired areas of specialization include polymeric materials, physical metallurgy, and surface and thin film sciences. Applicants should have a Ph.D., a demonstrated research potential or record in topics covered by the above areas, be interested in developing a very strong research program, and be enthusiastic and qualified to teach.

Please send résumé and a list of references to: **Professor A. W. Thompson, Head, Department of Metallurgical Engineering and Materials Science, Carnegie Mellon University, Pittsburgh, PA 15213. Telephone: 412-268-2700. Equal Opportunity/Affirmative Action Employer.**

VETERINARY MICROBIOLOGIST

A tenure-track position in veterinary microbiology. A Ph.D. or D.V.M./Ph.D. required. Responsibilities include research in broad area of pathogenic mechanisms and immunobiology of bacterial diseases of animals; supervision of diagnostic microbiology lab and teaching an undergraduate and graduate course.

Experience in molecular biology, recombinant DNA technology and immunology is desirable. Rank and salary commensurate with experience. Send curriculum vitae and three references to: **Dr. Louis van der Heide, Search Committee, Department of Pathobiology, University of Connecticut, U-89, Room 103, 61 Eagleville Road, Storrs, CT 06268. (Search #8A309).**

SYMPOSIUM

IN SITU EVALUATION OF BIOLOGICAL HAZARDS OF ENVIRONMENTAL POLLUTANTS, 5 to 7 December 1988; Hotel Europa, Chapel Hill, North Carolina. The meeting will focus on the application of currently available bioassays for in situ environmental assessment and on the evaluation of the utility of integrated chemical and biological data obtained under real world conditions for the assessment of human health effects from exposure to a given environment. Requests for registration materials should be made to: **Barbara M. Andon, Environmental Health Research and Testing, Inc., P.O. Box 12199, Research Triangle Park, NC 27709. Telephone: 919-541-7532.**

WORKSHOP

THE ECONOMIC IMPACT OF AIDS 27 SEPTEMBER 1988



Conference in Baltimore sponsored by the Johns Hopkins University School of Public Health. Focus on methodological issues in the design and implementation of study to estimate direct and indirect costs related to HIV infection. Attendance limited to approximately 300 persons. Details and application forms from: **AIDS Conference, 407 Hampton House, 624 North Broadway, Baltimore, MD 21205.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP available immediately to work on molecular aspects of T lymphocyte activation. Projects include examination of *myc* and *fos* oncogene expression, generation of intracellular second messengers, and control of calcium ion flux in T cell subsets of normal and aging mice. Send curriculum vitae and names of three references to: **Dr. Richard A. Miller, Boston University Medical Center, 80 East Concord Street, Boston, MA 02118. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP, NIH. Research in: evolution and molecular genetics of genes coding for enzymes that metabolize drugs, carcinogens and occupationally hazardous substances; positive and negative regulatory elements; characterization of genes encoding trans-acting factors; developmental and tissue-specific gene expression. Clinical applications: predicting individual risk of certain malignancies and adverse drug reactions. Background in molecular biology or biochemistry is required. Salary commensurate with experience and qualifications. Send curriculum vitae and the names of three references to: **Dr. Daniel W. Nebert, Building 6, Room 416, National Institutes of Health, Bethesda, MD 20892. Equal Opportunity Employer.**

MARKETPLACE

DIRECT MAIL FUNDRAISING

We are specialists in raising funds for medical research projects and public health education.

Call C. Hughey 703-549-8977

ACQUISITION OPPORTUNITY FOR RESEARCH ANIMAL BREEDER AND LIFE SCIENCE RESEARCH FACILITY

One of largest specialty breeders in the world. AAALAC accredited. Three colonies of substantial size. Known lineages and medical histories. 1987 sales \$3.2 million. 12.8% pretax income. High margins in research operations. Equity over \$2.5 million. Strong growth opportunity. 70 acre site with substantial capacity for expansion. High volume of international (Japanese) sales. Send qualifications to:

**RDB
PO Box 64357
Chicago, IL 60601
(312) 407-6507**

NEED DNA FAST?

Custom DNA in 26 hours*

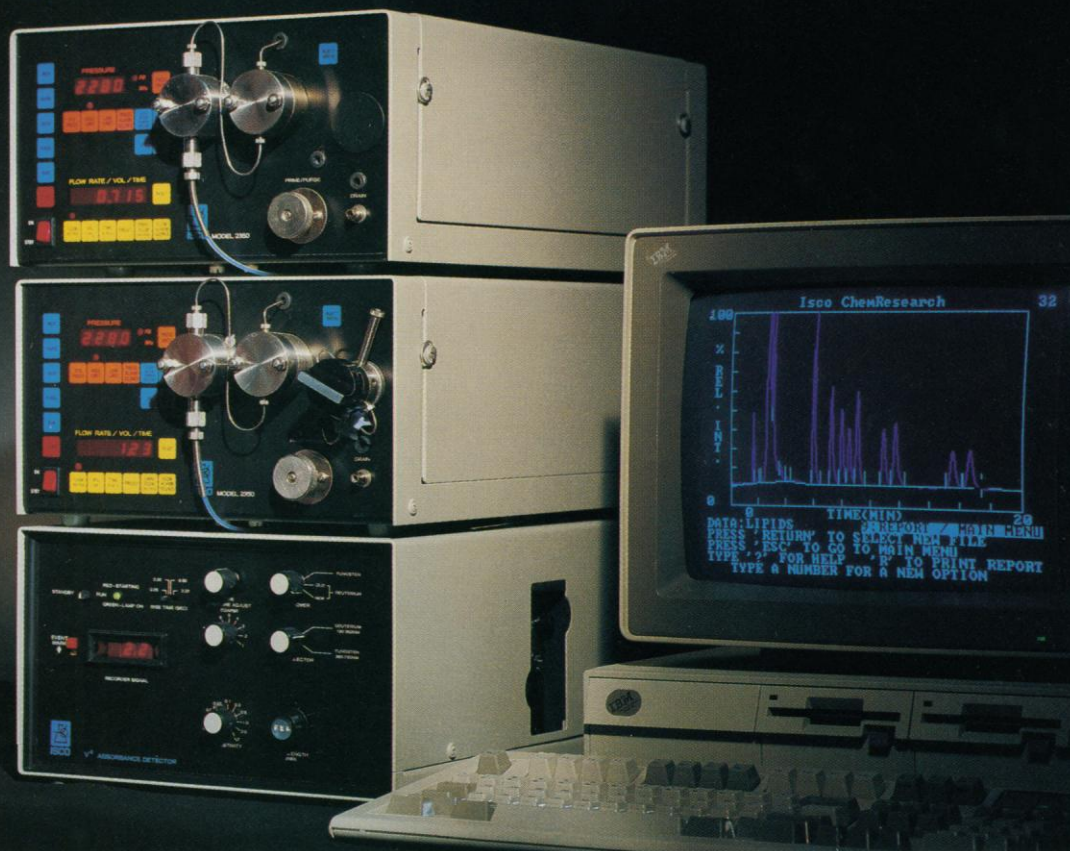
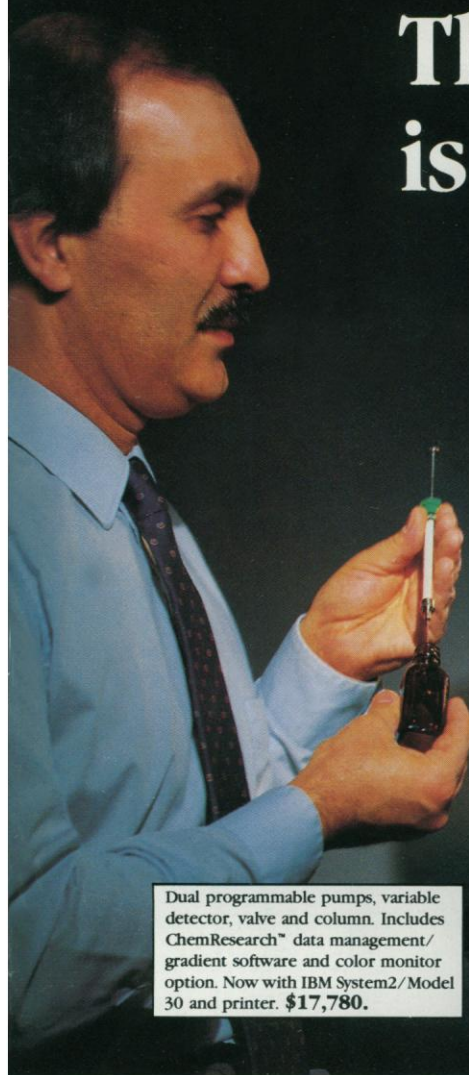
Redundancies. Modifications. 5'-Phosphorylation. Low Prices. Purification by HPLC or gel. Linkers, adaptors and standard primers in stock. *Special discount for readers of this ad.*

***1-800-247-8766**

**The Midland Certified Reagent Co.
3112A W. Cuthbert, Midland, TX 79701**

Circle No. 207 on Reader Service Card

The right chromatograph is going to cost you less.



Dual programmable pumps, variable detector, valve and column. Includes ChemResearch™ data management/gradient software and color monitor option. Now with IBM System2/Model 30 and printer. \$17,780.

Isco chromatographs offer top value. An Isco single-pump ternary or dual-pump binary gradient system complete with IBM computer can give you greater performance and capability than the two top-selling systems that cost much more. You'll get great value with any Isco HPLC system: analytical, microbore, or prep; stainless or inert.

With top performance. An Isco system gives you a precision pump that can be programmed to change flow rate based on either time or volume delivered. The sensitive, stable 190-to-750 nm detector has flow cells down to 0.12 μ l. And the powerful data management system is actually easier to use than many simple integrators found in other chromatographs.



Binary/ternary gradient programmer, programmable pump, variable detector, recorder, valve, column. \$11,990.

And top reliability. We've made over 50,000 detectors, pumps, and related instruments to earn our reputation for dependability. We back it up with the best system warranty offered anywhere—three years parts and labor.

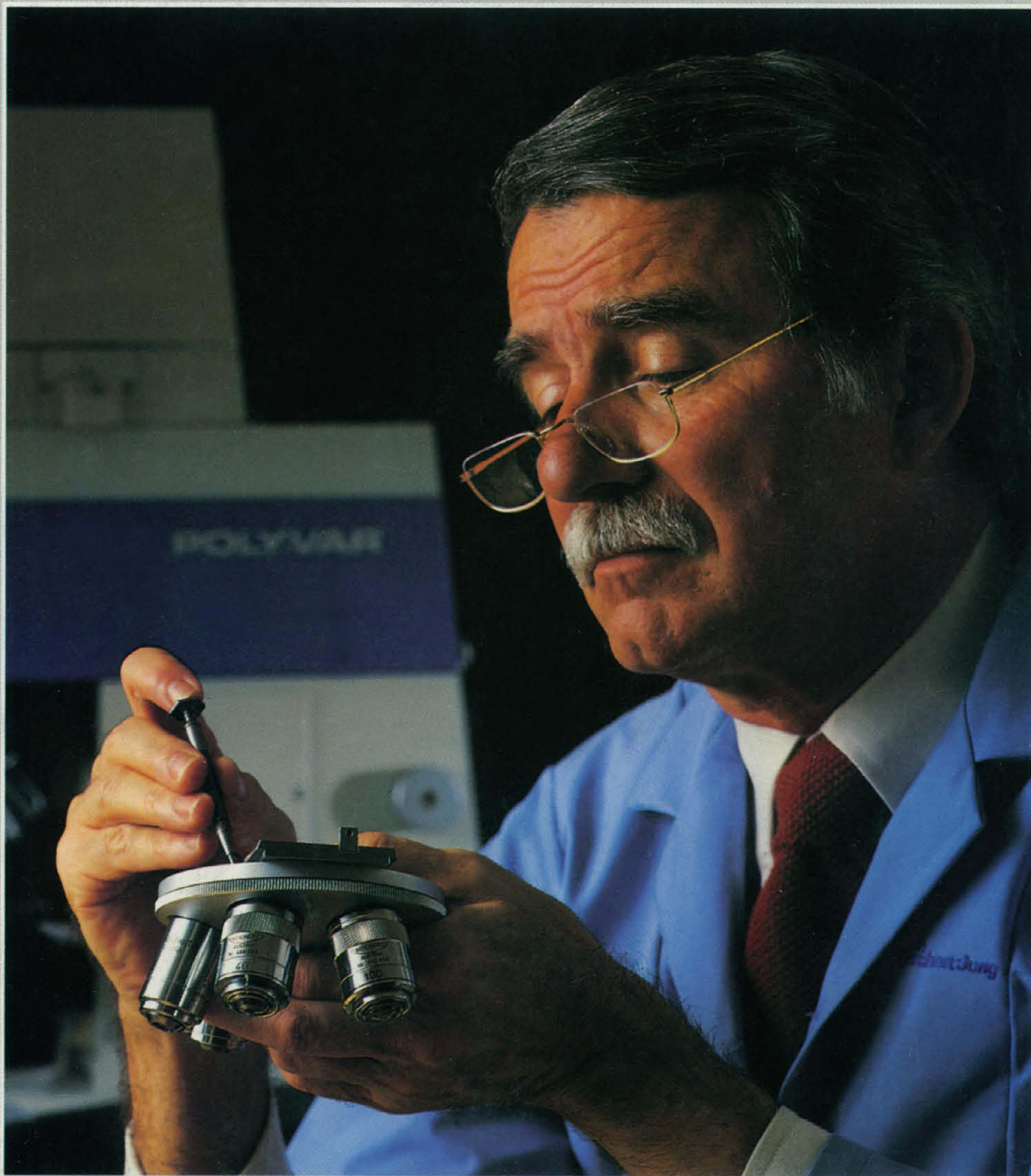
Find out how much value Isco gives you by sending for a comparison of the leading HPLC systems. We'll also include our 80-page general catalog and 48-page HPLC catalog. Call toll free (800) 228-4250 (except NE, AK) or write:

Isco Inc.,
P.O. Box 5347,
Lincoln, NE 68505.



Circle No. 102 on Readers' Service Card

POLYVAR BY REICHERT-JUNG



HE DOESN'T BUILD A MICROSCOPE FOR EVERYBODY.

Not many scientists need this much performance. Or versatility. Or convenience. Much less in one microscope. Fewer still appreciate or even recognize the fine detailing crafted into a hand built microscope. But for those who require it, there is POLYVAR.

Reichert-Jung

Cambridge Instruments Inc.
P.O. Box 123, Buffalo, NY 14240
Tel: (716) 891-3000

Circle No. 160 on Readers' Service Card