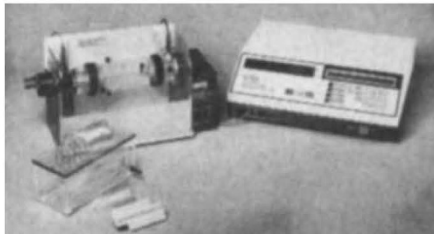


# Novelties from software to services

*This week's New on the Market is a combination of laboratory conveniences and advances, including a snap-in database and systems for keeping track of chemicals, animals and chromosomes.*

DNASTAR has taken another step forward in producing **software for molecular biologists**. Now its comprehensive molecular biology software, plus the complete GenBank and NBFR-PIR databases, are available on a compact disk, called LaserGene (*Reader Service No. 100*). LaserGene provides random access to 552 Mb of data — the equivalent of 1,444 floppy diskettes. DNASTAR says the compact disk technology uses sophisticated error correction protocols resulting in less than one error per 2,000 disks. When used in conjunction with the DNASTAR system, full database searches take only seconds. Updates of GenBank and NBFR-PIR databases are released quarterly, and are installed by simply replacing the disk.

Rotofor is the name of the newest **preparative scale electrophoresis cell** from Bio-Rad (*Reader Service No. 101*). The Rotofor is a free-solution isoelectric focusing apparatus. It uses a cylindrical



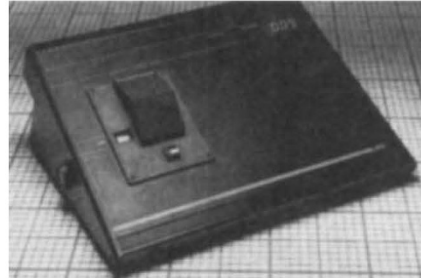
*Eliminates mixing problems with preparative IEF techniques.*

focusing chamber that rotates around its axis to overcome the problems inherent in scaling up IEF techniques. Nineteen parallel, monofilament polyester membrane screens divide the cylindrical chamber into 20 discrete compartments, allowing the solutions to be rapidly and easily collected after the proteins are focused. Bio-Rad says the Rotofor is capable of achieving greater than 10-fold purification of a protein sample in a single 4-hour run, with recovery of proteins of single-band purity in certain cases.

Charles River Biotechnical Services is now performing **safety testing of cell lines** and products for use in human therapy, in accordance with US Food and Drug Administration and European Economic Community regulations (*Reader Service No. 102*). The tests include detection of 16 murine viruses, XC plaque and S<sup>+</sup> L<sup>-</sup> murine retrovirus assays, electron microscopy services, DNA hybridization and DNA transformation assays, and tests for EBV and human viruses in cell culture. CRBS also offers production services for monoclonal antibodies or other biomol-

ecules using *in vivo* or Opticell *in vitro* techniques, under GMP or GLP conditions.

If the wedge is the shape of things to come, then Walden Precision Apparatus is on the cutting edge with its S110 **spectrophotometer** (*Reader Service No. 103*). The



*The S110: a new angle on spectrophotometry.*

instrument is designed to eliminate user adjustment and zeroing. An autozeroing device readies the instrument after the reference cuvette is placed in one slot of the two-position cuvette holder. The only controls provided are the power switch, wavelength selector and cuvette change-over. The £825 (UK) spectrophotometer gives sample absorbance from 0.000 to 1.999 A, using wavelengths between 320 and 900 nm.

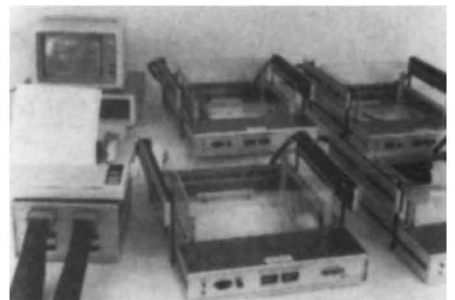
Custom **transgenic mice** are available from Clontech Laboratories, for use in medical research and pharmaceutical development (*Reader Service No. 104*). Clontech will tailor the gene supplied, fuse it to an appropriate promoter and microinject it into the germline of the chosen mouse strain. Clontech guarantees that first generation transgenic mice will be positive for the integration of the DNA, as shown by Southern blot analysis, and will protect all gene constructs and transgenic animals as proprietary products for use solely by the customer.

Often it is vitally important to keep track of hazardous substances, and document their uses and disposal. Fisher has a **hazardous substance tracking system** called Trace to help laboratories account for hazardous materials, even if they are subdivided into several containers (*Reader Service No. 105*). Trace is a software program based on the Unisys 500 minicomputer that assigns a unique identifier to each container instead of each chemical, and prints bar-coded labels for them. Each container record includes the destination area of the substance, the owner ID, the expiration date, container type, lot number, date and time received, and comments of up to 25 characters. The

system can be purchased directly for \$15,000–60,000 (US), or as a part of a contract arrangement for Fisher equipment or supplies.

An **automated chromosome analysis system**, Cytoscan, is available from Image Recognition Systems (*Reader Service No. 106*). The system is designed for high-speed metaphase finding and karyotyping in cytogenetics, to assist in the diagnosis of chromosome defects, but can also aid detection of chromosomal abnormalities due to radiation or other agents. The \$180,000–225,000 (US) Cytoscan consists of a computer-controlled microscope and a colour monitor. Images may be manipulated via the keyboard or an optical mouse that can act as "electronic scissors" to split overlapping and touching chromosomes. Karyograms can be printed out, or stored permanently on the system.

The **animal activity meter** system from Columbus Instruments International can be used to record the positions of animals in 16 cages 10 times per second, according to the company (*Reader Service No. 107*). The Columbus Auto-Track animal activity meter has a new interface for IBM PC computers that allows data from up to 16 animal activity sensors to be collected and evaluated. The animal activity sensors



*Tracks animals in up to 16 cages simultaneously.*

operate on an infrared beam principle, with 15×15 infrared beams in X and Y coordinates, and cover a cage size of 37×37 cm. Two vertical sensors can be positioned on two adjustable levels to allow the distinction of animal rearings and jumps. Computer files created with the \$16,290 (US) Auto-Track system, including an animal activity sensor, interface and computer, can be used with Lotus 1-2-3, Stat-Pro, and other statistical programs.

*These notes are compiled by Carol Ezzell from information provided by the manufacturers. To obtain further details about these products, use the reader service card bound inside the journal. Prices quoted are sometimes nominal, and apply only within the country indicated.*