

Stocking stuffers

Lower your stress and raise your spirits with immortalized cell lines, LiteTouch pipettes and high-throughput bacterial transformation.

Primary and transformed cell lines have limited usefulness in long-term studies, because they senesce after a certain number of cell divisions, or frequently contain chromosomal abnormalities and are genetically unstable. Enter the hTERT-RPE1 telomerase-immortalized cell line from **Clontech** (in association with Geron Corp.). These cells, derived from human retinal epithelium, express human telomerase reverse transcriptase (hTERT), allowing them to circumvent senescence—by maintaining telomere length—while preserving chromosomal integrity. The manufacturer claims the cells continue to divide at the same rate as young primary cells, even after 300 population doublings, making them useful for long-term studies of cell growth.

Bothered by pipette fatigue? **Rainin** offers Pipet-Plus™ with the LTS™ (Lite-Touch) tip-ejection system, which is designed to reduce tip-ejection forces. It achieves this by using a cylindrical (as opposed to the typical conical) shaft and tip, preventing 'over-insertion'. Based on measurements of tip-ejection forces, a major contributor to the stress involved in repetitive pipette use, the manufacturer claims that the pipette significantly reduces user effort and fatigue. The pipettes are available in six models over a volume range of 0.1–1000 µl, and include the 'magnetic assist', 'Latch-Mode™' and electronic series.

Conducting assays in high-throughput 96- or 384-well plate formats increases the time it takes to perform washing steps. **Tecan** offers a solution: the Columbus automated strip washer. This system offers overflow washing, a fast jet washing step suitable for ELISAs, as well as a more gentle washing option to minimize cell loss. Up to four different buffers can be included in one wash procedure, and various types of supply bottles can be used.

The Columbus can be programmed by Windows™-based software or the built-in keyboard and display, and the system can be interfaced with existing robotic liquid handling systems or operate in a stand-alone capacity.

'High throughput' and 'pipette fatigue' can be synonymous, particularly when one is performing large numbers of bacterial transformations. Multi-Shot™ TOP10

chemically competent *E. coli*, from **Invitrogen**, might make life a bit easier. The cells are distributed in 15 µl aliquots in 96-well plates; add the DNA, as either plasmid or ligation mix, heat shock the plate in a thermocycler or heating block, and fill each well with SOC medium. The TOP10 strain genotype facilitates transformation of unmethylated or methylated DNA populations, is recombinantion-deficient and competent for blue-white selection. The manufacturer claims to have optimized the protocol for high yield.

Using software to store and draw pedigrees can serve as a time-saving means of managing large amounts of genetic data.

Cherwell Scientific Ltd. has now updated its pedigree software line with Cyrillic 3. It offers pedigree management to researchers, clinicians and genetic counsellors and integrates the existing risk assessment tools BRCAPRO and MENDEL to simplify these analyses. Cyrillic 3 can also analyse complex family relationships such as multiple parents and multiple



Techne's Roller-Blot HB-3D hybridization incubator.

births. Data are stored using industry-standard database technologies; pedigree diagrams and data tables can be displayed simultaneously and are dynamically linked, allowing changes made in one to be immediately reflected in the other. Cyrillic 3 can also import files from earlier versions of the software.

Techne, Ltd. presents a new entry into the benchtop hybridization market: the Roller-Blot HB-3D hybridization incubator. Roller-Blot is designed to fit on a normal benchtop and has a heavy-duty lift-up canopy for access and protection during use. It can accom-

modate 3 large, 9 medium or 12 small hybridization vessels, or a combination of these, and is suitable for all typical (Southern, northern, western) blotting applications. Hybridization temperatures can range from 7 degrees above ambient temperature to 85 °C, with a fast warm-up time.

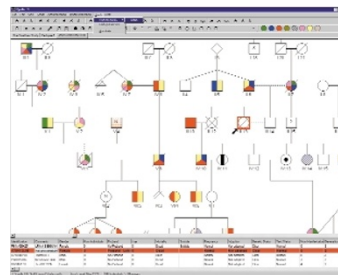
In the high-tech realm, **Agilent Technologies** (a subsidiary of the Hewlett-Packard Company) introduces the first product based on 'Lab-on-a-chip' technology: the HP 2100 bioanalyzer. With this technology, all steps of a nucleic-acid analysis, from sample preparation to data processing, can be carried out in a network of channels and fluid reservoirs within a microchip, significantly reducing analysis time and sample consumption compared with conventional gel electrophoresis. Three Lab Chip™ assays are currently available: the DNA 7500, for the analysis of DNA fragments 0.1–7.5 kb in size; the DNA 12000,

for the analysis of DNA fragments 0.1–12.0 kb in size; and the RNA 6000, for analysing total RNA and mRNA. Agilent promises that more LabChips will soon be available.

—Notes compiled by Michael Ronemus



Reduce repetitive pipetting stress with Rainin's Pipet-Plus™.



Pedigree management by Cyrillic 3 from Cherwell Scientific Ltd.

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