# Technology Takeover

Like it or not, technology has taken over—you just can't escape it. Anyone who doubts the veracity of this statement should take a ride or two on a New York City subway. The tokens of yesteryear are now obsolete, having been replaced by 'MetroCards' that commuters swipe before going through the turnstiles. Chances are that the music you hear blasting from nearby headphones originates not from a bulky portable CD or cassette player, but from a tiny MP3 player that stores hundreds or thousands of songs. Many of those passengers who aren't reading or sleeping are checking the day's schedule on their electronic handheld devices. Cell phones don't work in the underground trains, but the elevated trains are full of people talking on them or checking their voicemail. Occasionally, you might even see parents keeping their children entertained with a DVD being played on a laptop computer.

Similarly, more and more high-tech devices are invading the laboratory animal facility. This issue of *Lab Animal* includes a series of articles that deal with applications of technology to problems in laboratory animal research.

The internet certainly contains a wealth of information of interest to those working in animal research, but distinguishing the useful sites among the large numbers of less-reputable ones is not always so easy. For example, Google will return about 187,000 results from a search for 'mouse drug discovery'—more than you are likely to want to peruse to find the information you're looking for. Author Donnelly did some of the work for you by compiling a list of useful sites related to the use of mice in drug discovery (p. 43), as well as a list of free sites that can be used to search for alternatives to painful and/or distressful procedures (p.46).

The use of commercially available databases is becoming increasingly common in the field, with many facilities using them to help with facility management or to keep track of colony and protocol information. For more specialized applications, individuals and groups are starting to design customized databases to meet their needs. As an example of this, authors Weeks and Hart (p. 35) describe a rat spinal cord research database, which gathers medical records of paraplegic rats and will ultimately allow different laboratories to compare data.

Imaging devices, such as the MRI or CT machines that are now commonly used in clinical medicine to determine the extent of sports injuries and to monitor tumor size in cancer patients, are now increasingly being applied to laboratory animal science. Scaled down versions of these medical imaging devices allow for *in vivo*, noninvasive longitudinal studies of disease progression or other biological processes. These instruments enable researchers to gather highly valuable information without sacrificing animals, but are also expensive, and require trained personnel to run the machines and interpret the results. Authors Klaunberg and Lizek (p. 28) relate experiences from planning such a facility, and discuss key issues to consider when contemplating the purchase of this type of equipment.