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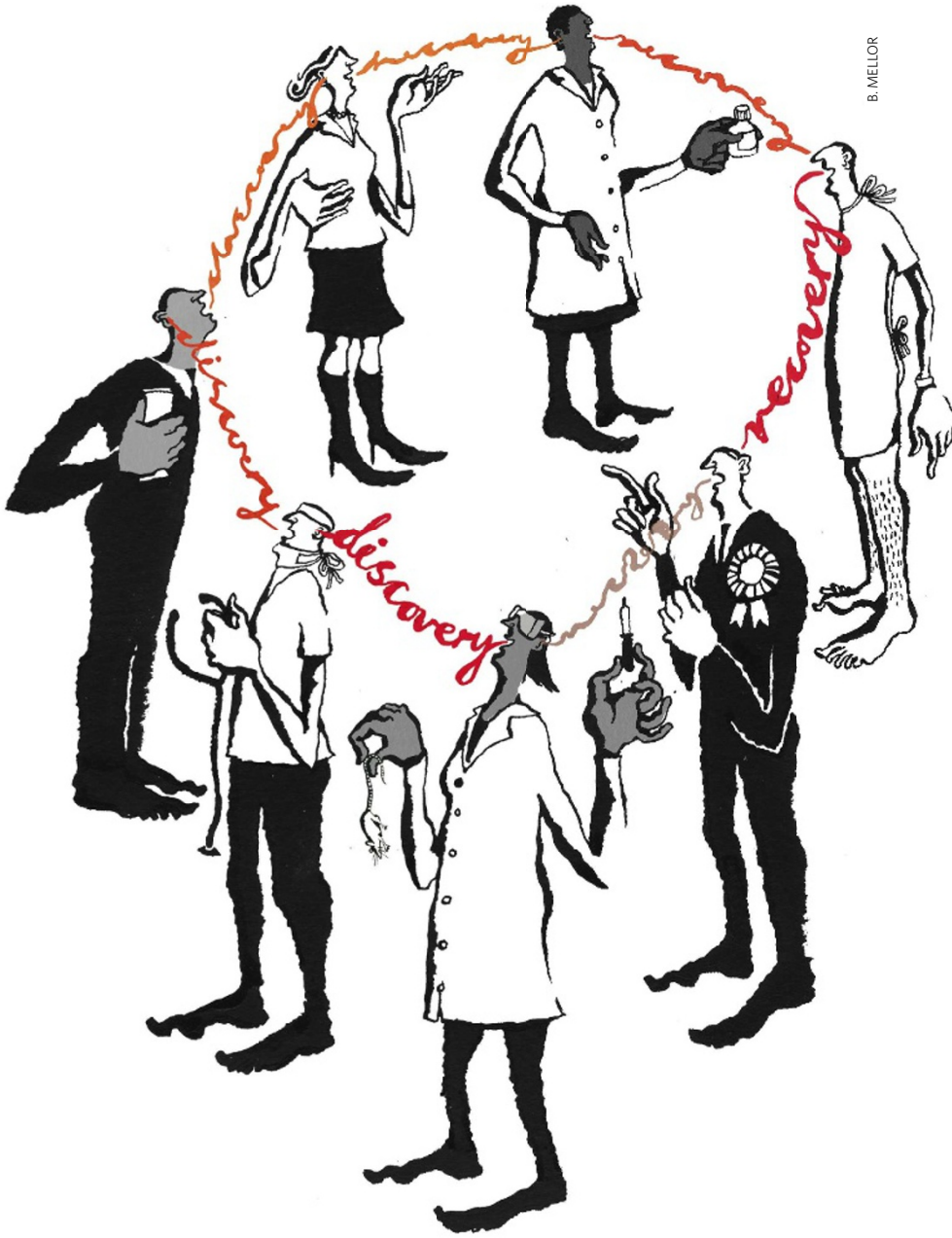

GETTING THE MESSAGE ACROSS

There is a growing disparity at the heart of biomedicine. In some ways, the field is experiencing a golden age: the quantity of basic research is shooting off the charts and budgets are far higher than they were two decades ago. Yet the impact of this research is growing at a much more modest rate: new cures and therapies are ever more expensive to develop and worryingly thin on the ground.

The term 'translational research', hardly heard ten years ago, is now on everyone's lips because it is seen as the solution to this disparity. It is expected to ensure that the bounty of the golden age is 'translated' into benefits in the everyday world of cancer, dementia or heart disease, for example. It thus has a key part to play in improving our lives and also in rationalizing the social contract between researchers and the taxpayers who help fund them in expectation of future cures (see page 823).

In this issue we examine a range of topics in translational research. On page 840, Declan Butler finds out what proponents of the idea at the US National Institutes of Health expect to achieve, and how they plan to deliver on their promises. And on page 846, Helen Pearson visits the Ludwig Institute for Cancer Research, which claims to have been attempting translation for 20 years and so has a trick or two to teach newcomers.

The relationship between academia and industry is key to successful translation. University technology-transfer offices can loom large in this relationship. On page 830, Meredith Wadman discusses concerns that some of these offices are more of a hindrance than a help. Closer collaboration, in which industry pays universities to solve problems that it defines, might be one solution (see page 853). More radically, a book reviewed on page 855 argues that the entire drug industry should be restructured, with research and development pried free from marketing.

The concept that translational research is a one-way flow from bench to bedside is seen by many as outdated. Clinical data and human trials can inspire insights that flow from bedside to bench, too, as Heidi Ledford reports on page 843. The observation that some anti-inflammatory drugs may delay the onset of Alzheimer's disease, for example, has led one group to find out how they block formation of dangerous protein products (see pages 861 and 925), which may help to refine the drugs. And pages 863 and 921 detail progress towards a transgenic monkey model for Huntington's disease.

Riches abound. If these discoveries can be carried to the clinic, biomedicine will be all the richer. ■