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► **COVER:** 'Cellular imaging' by Susanne Harris inspired by the review on p343.



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There is a pressing need for new antibiotics to combat the worsening problem of bacterial resistance to vital current drugs, such as vancomycin. In this issue, Breukink and de Kruijff review natural products that, like vancomycin, target Lipid II, a key molecule involved in bacterial cell-wall synthesis, but which do so by novel mechanisms. Another major health concern is the rising prevalence of the metabolic syndrome, which encompasses a group of factors associated with increased risk of cardiovascular disease and diabetes. Lazar and Saltiel highlight the potential of the lipid phosphatases PTEN and SHIP2 as novel targets for type 2 diabetes, and Grundy discusses the challenges and progress in the development of drugs that target the metabolic syndrome as a whole. Such therapies could alleviate problems related to the need to take increasing numbers of drugs to target the individual risk factors of the metabolic syndrome as it progresses. Two reviews this month consider technologies that promise to improve the success and efficiency of drug discovery and development. Lang and colleagues discuss how cellular imaging systems could benefit each stage of the drug-screening process. And Kingsmore reviews emerging array technologies for multiplexed measurement of protein levels, which promise to have an impact on biological research and drug development similar to that of nucleic-acid-based arrays — in the discovery and application of biomarkers, for example. Finally, in this month's Perspective article, Cohen considers the impact that market entry order has on the commercial success of a drug, and how this should be taken into account in innovation strategies.

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