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► **COVER:** 'Lipoproteins and hydrophobic drugs' by Susanne Harris, inspired by the Review on p84.



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A quarter of a century after the introduction of human insulin as the first recombinant protein therapeutic, Golan and colleagues provide an overview of the rapidly growing field of protein therapeutics. As part of our Guide to Drug Discovery series, this Perspective includes comprehensive tables summarizing the more than 130 protein therapeutics approved so far, and a proposal for a classification system for these agents based on their pharmacological actions. In the first review, Thurmond and colleagues describe how the elucidation of the roles of the histamine H<sub>4</sub> receptor has revealed new potential for targeting histamine receptors in disorders such as asthma and pruritis. Two other reviews this month discuss approaches to better understand disease biology and the effects of therapeutic interventions. Bullen highlights the potential of microscopic imaging in drug discovery, with a focus on recently introduced technologies, as well as enhancements to existing technologies, that are improving spatial resolution, tissue penetration and experimental throughput. Technical advances, this time in neurophysiology, are facilitating new ways to measure abnormal brain functions, offering novel opportunities for use as biomarkers, and in their review, Javitt and colleagues discuss neurophysiological biomarkers for schizophrenia and their strengths and limitations for drug development. Meanwhile, Wasan and colleagues discuss the impact of lipoproteins on the pharmacokinetics, drug metabolism, tissue distribution and biological activity of various hydrophobic compounds. Understanding the uptake mechanisms of drugs into lipoproteins and the influence that novel delivery systems can impart into the lipoprotein distribution of the drug could provide opportunities to improve therapeutic profiles. Finally, we would like to thank our authors and referees for their contributions in the year 2007, and also our readers for their continuing interest in our publications.

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Printed in Wales by Cambrian Printers on  
acid-free paper