











MONICA HOYOS FLIGHT

ecent clinical studies of drugs for schizophrenia have raised questions about the perceived advantages of second-generation 'atypical' antipsychotics over older drugs. By examining the evolution of the concept of atypicality over the past 50 years, Gründer and colleagues suggest that a broadening of this concept might have hampered antipsychotic development and propose how this issue might be addressed. Another concept — drug-likeness — based on desirable physicochemical properties of drug candidates has become widely accepted in medicinal chemistry in recent years. However, in their Analysis, Keserü and Makara reveal that undesirable physicochemical properties of recent leads and drug candidates might be linked to the nature of the hit discovery strategy and hit-to-lead optimization practices, and suggest that changes to this process could help reduce compound-related attrition rates. In the first Review, Lippman and colleagues focus on the potential of molecularly targeted chemopreventive agents for cancer treatment, discussing the successes with such agents and how the challenges encountered in their development might be overcome to expand the applicability of cancer chemoprevention strategies. Recombinant monoclonal immunoglobulin G (IgG) antibodies are now widely applied to treat cancer and other disorders. In his Review, Jefferis considers the structure of human IgG antibodies, highlighting how the presence of specific oligosaccharides could maximize selectivity and efficacy for a given disease, while also reducing potential immunogenicity. Finally, the biology and pathophysiology of members of the fibroblast growth factor (FGF) family are reviewed by Beenken and Mohammadi, who emphasize their therapeutic potential in cancer, cardiovascular disease, the metabolic syndrome and hypophosphataemic diseases.

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