ACS Medicinal Chemistry Letters

IN THIS ISSUE

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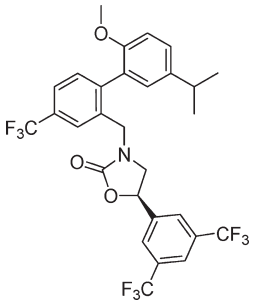
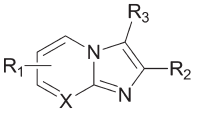
Increasing "Good Cholesterol"



Epidemiological studies have demonstrated an inverse relationship between high density lipoprotein cholesterol (HDL-C) and cardiovascular disease. Therefore, there is interest in therapeutics which augment HDL-C levels, particularly in populations that exhibit levels below average.

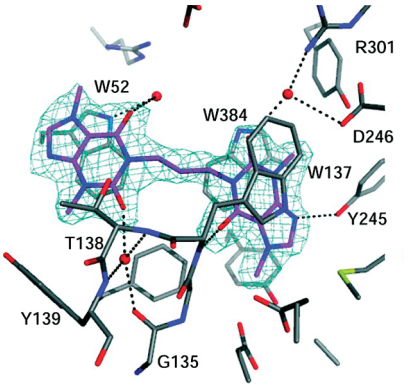
Cholesteryl ester transfer protein (CETP) is a protein involved in remodeling lipoproteins such as HDL-C. Clinical studies have shown that inhibition of CETP leads to dramatic increases in levels of HDL-C. Therefore, there is interest in developing antagonists of CETP for therapeutic benefit. Now, Thompson et al. (10.1021/ml100309n) describe a novel and potent class of molecules with an oxazolidinone core that display the ability to inhibit CETP. One of the compounds described in this study shows promise as a potential clinical candidate.

Antituberculosis Drugs



It is estimated that throughout human history tuberculosis has killed more people than any other disease and all wars combined. While tuberculosis is curable, current therapeutic options are far from ideal, as they require administration of a combination of drugs over several months. Given the scale of the disease, there is an immediate need for compounds that can be easily synthesized and demonstrate novel modes of action. Now, Moraski et al. (DOI: 10.1021/ml200036r) describe the discovery, synthesis, and elucidation of mode of action of a new class of antituberculosis compounds that are potent even against multiple drug-resistant and extended drug-resistant forms of the disease.

Chitinase Inhibitors



Chitin, a long-chain polymer of β-(1,4)-linked *N*-acetylglucosamine, is an important component of the cell wall of fungi and is found in the exoskeleton of arthropods. Chitinases are enzymes which catalyze the degradation of chitin and are important for remodeling chitin in the fungal cell wall during division. Specific inhibitors which can easily be synthesized would assist in elucidation of the function of these enzymes. Now, Schüttelkopf et al. (DOI: 10.1021/ml200008b) use existing crystal structures of chitinases to rationally design a potent chitinase inhibitor bisdionin C.

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