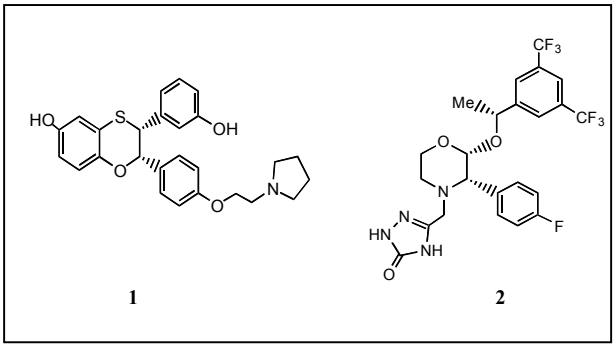
Graphical Abstract

The Stereoselective Synthesis of New Drug Candidates

David M. Tschaen (Merck Research Labs, Department of Process Research)



Pharmaceutical research and development is a highly competitive global industry which is under increasing pressure to discover and develop new medicines more efficiently and cost effectively. In addition, the rapid and economical synthesis of new drug candidates is becoming increasingly more challenging in part because many novel pharmaceutical targets are reasonably complex and often include one or more asymmetric centers. Therefore, designing and developing efficient asymmetric routes to prepare these novel pharmaceuticals requires the discovery and application of the latest breakthroughs in synthetic methodology. The development of practical and efficient asymmetric approaches to two new drug candidates will be described.

Reference:

(1) *Proceedings of the National Academy of Sciences (PNAS)* 2004, 5776-5781.

(2) *Journal of the American Chemical Society* 2003, 125, 2129

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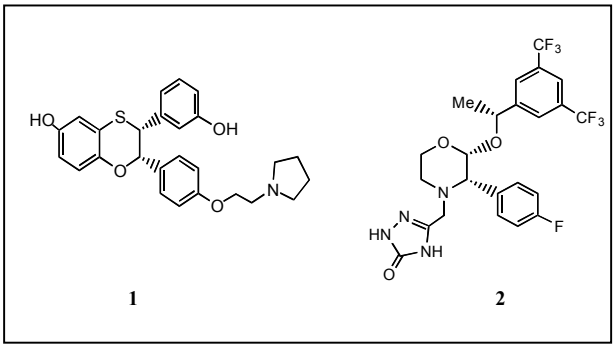

製薬研究・開発は、現在、世界的な競争産業であり、新薬のより効率的、かつ低コストでの発見・開発が強く望まれている。さらに、多くの標的化合物は、複雑な構造や複数の不斉中心を有するため、迅速かつ経済的な新薬の合成は、近年よりチャレンジングなものとなっている。そのため、それら新薬開発のための効率的な不斉合成法の設計・開発のためには、合成方法論上において、新しいブレイクスルーを見出す必要がある。今回、２種の新薬候補となる化合物の、より実用的かつ効率的な不斉合成法の開発について報告する。

＜参考文献＞

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