

Targeted versus Phenotypic Approaches in Drug Discovery

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While the investment in drug discovery research and development is constantly increasing, the number of new drugs approved for market use has not been increasing proportionally. This high attrition rate calls for a rethinking of drug discovery approaches.^{1,2} Two of these approaches will be discussed. I will start by talking about Merck's ligand based approach to identify the orexin antagonist and move on to Vertex's phenotypic approach to drug discovery for the treatment of cystic fibrosis. The key point will be difference between phenotypic and targeted drug discovery.

¹ Nature Reviews Drug Discovery 10, 507-519 (July 2011) | doi:10.1038/nrd3480

² J Comput Aided Mol Des. 2014 Jan;28(1):5-12. doi: 10.1007/s10822-014-9710-x