

Breast cancer boasts of highest drug pipeline'

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Singapore: Breast cancer therapeutics pipeline has higher innovation in first-in-class molecules, with many new technologies holding the potential to transform the clinical and commercial treatment landscape over the coming decade, according to market analysis firm, GBI Research.

According to company's report, breast cancer has the largest drug pipeline in the pharmaceutical industry, with 816 products in active development across all stages. Of these treatments, GBI Research has identified 245 first-in-class programs acting on 175 first-in-class molecular targets, accounting for 39 percent of all products with a disclosed molecular target.

Mr Dominic Trewartha, analyst, GBI Research, said, "The mechanisms of action in the breast cancer pipeline cover an extremely diverse range. Traditional chemotherapies and hormone therapies, for example, represent just 22 percent of the total pipeline, while there is an increasing move towards developing therapies that directly target proliferative signaling pathways. These therapies account for 31 percent of the pipeline."

According to GBI Research, the most widely studied, first-in-class targets in the breast cancer pipeline are signal transducer proteins. These are components of proliferative and survival-promoting signaling pathways, such as Ras/MAPK and PI3K/Akt, which operate downstream of the receptor. It is now understood that these agents share a high degree of crosstalk with one another.

Mr Trewartha commented, "Most first-in-class products in the breast cancer pipeline currently reside between the discovery and preclinical stages of development, although there are some in Phase I through to Phase III.

Despite the high failure rates witnessed in clinical trials, many first-in-class products will reach the market within the next decade, providing new therapies to currently underserved patient segments with significant unmet needs."

GBI Research also states that the challenge to develop products targeting novel rather than well-established pathways is offset by the real potential to discover highly effective drugs, which could alter the treatment market dynamics, increase competition and help drive further therapeutic innovation in breast cancer.