

Investigating the use of high-throughput screening and high-content screening in anti-obesity drug discovery

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In 2016, the World Health Organization (WHO) reported that nearly 13% of the world's adult population suffered from obesity. It is well

known that this complex disease is correlated with long-term health effects such as type-2 diabetes, hypertension and coronary heart disease that impacts an individual's quality of life.

Researchers have spent nearly three decades trying to develop new therapies by utilizing [high-throughput screening](#) (HTS) and high-content screening (HCS) methods to assess the changes that occur in adipose tissues and adipocytes in relation to obesity. However, effective pharmaceutical treatments are still not readily available, which raises questions for why this is the case.

The perspective article featured in the October issue of *SLAS Discovery*, "Adipocyte-based high throughput screening for anti-obesity drug discovery: Current status and future perspectives" by Tsui, investigates the use of HTS/HCS techniques in anti-obesity drug discovery.

The article shares two profound discoveries: not only did very few studies utilize HTS/HCS technology when performing drug screening using adipocyte models, but the studies that did utilize HTS/HCS techniques lacked the original data or adequate information regarding the experimental design. It is possible that these findings could explain why pharmaceutical treatments are limited.

More information: Leo Tsui, Adipocyte-based high throughput screening for anti-obesity drug discovery: Current status and future perspectives, *SLAS Discovery* (2022). [DOI: 10.1016/j.slasd.2022.08.001](https://doi.org/10.1016/j.slasd.2022.08.001)

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