

Integration of Organoids with Analytical Techniques for Improved Drug Discovery and Development

Analytical Seminar

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Abstract:

Currently, discovery of novel drugs and the exploration of their efficacy is a highly cost intensive process that results in consistently low number of drugs being released into the market. This is likely due to the limited predictive value of traditional cell cultures and animal models for testing. Organoids, or 3D cell cultures derived from stem cells that exhibit the features of mature organs, have recently been used to assess aspects of drug metabolism and toxicity. When combined with mass spectrometry, organoid-based drug screening can reduce analysis costs and allow for a greater insight into drug metabolism in the body. This presentation will discuss off-line analysis of organoids using mass spectrometry and an organ-in-a-column coupled on-line LCMS system.