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### **Proof of Concept Study Shows Improvements for Personalized Drug Testing**

*The June issue of SLAS Discovery features drug sensitivity and resistance testing, along with other drug discovery research articles.*

**Oak Brook, IL** – The June 2023 issue of *SLAS Discovery* contains one review article, five full-length articles and two technical briefs covering spheroid models, 3D cell high-throughput screening (HTS) applications for treating Alzheimer’s and other drug discovery research.

In drug discovery, 3D cell models have emerged as more physiologically relevant than traditional 2D cell cultures in ex vivo models. As the complexity of patient-derived primary 3D cell cultures increases, so does the need for a supportive matrix for facilitating their formation.

Featured in this month’s issue is the article “[Comparison of two supporting matrices for patient-derived cancer cells in 3D drug sensitivity and resistance testing assay](#),” by Feodoroff, et al, which explores the comparison between animal-derived matrix (Matrigel) and animal-free matrix (GrowDex) for developing spheroids from HepG2 cells in drug screening assays. Through a proof-of-concept study, the authors demonstrated that both matrices effectively support the growth of spheroids derived from patient cells (PDCs) for 3D drug sensitivity and resistance testing (3D-DSRT).

These findings offer promising prospects for automating 3D-DSRT in drug testing, encompassing cell lines and PDCs.

Read this original research article to see what the authors suggest as potential improvements to 3D-DSRT in drug testing, along with more research articles in the June issue of *SLAS Discovery*.

The [June issue](#) of *SLAS Discovery* includes these additional articles:

- [In Vitro three-dimensional \(3D\) cell culture tools for spheroid and organoid models](#)
- [Application of human iPSC-derived macrophages in a miniaturized high-content-imaging-based efferocytosis assay](#)
- [Fragment-based drug discovery of small molecule ligands for the human chemokine CCL28](#)
- [A novel fluorogenic reporter substrate for 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-2 \(PLCγ2\): Application to high-throughput screening for activators to treat Alzheimer's disease](#)
- [Development of an enzyme-coupled activity assay for Janus kinase 2 inhibitor screening](#)
- [Development of a high-throughput TR-FRET screening assay for LAG-3/FGL1 interaction](#)

- [High-throughput approaches to uncover synergistic drug combinations in leukemia](#)

Access to the June issue of *SLAS Discovery* is available at [https://slas-discovery.org/issue/S2472-5552\(23\)X0005-7](https://slas-discovery.org/issue/S2472-5552(23)X0005-7)

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*SLAS Discovery* reports how scientists develop and use novel technologies and/or approaches to provide and characterize chemical and biological tools to understand and treat human disease. The journal focuses on drug discovery sciences with a strong record of scientific rigor and impact, reporting on research that:

- Enables and improves target validation
- Evaluates current drug discovery technologies
- Provides novel research tools
- Incorporates research approaches that enhance depth of knowledge and drug discovery success

SLAS (Society for Laboratory Automation and Screening) is an international professional society of academic, industry and government life sciences researchers and the developers and providers of laboratory automation technology. The SLAS mission is to bring together researchers in academia, industry and government to advance life sciences discovery and technology via education, knowledge exchange and global community building.

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