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April Issue of *SLAS Discovery* Now Available

Oak Brook, IL – Volume 27, Issue 3 of *SLAS Discovery* is now available on ScienceDirect.

Pancreatic cancer is one of the most lethal cancers, due in large part to the limited therapeutic options currently available. The authors of "Lead identification using 3D models of pancreatic cancer" by Fernandez-Vega, *et al*, explore how their completely scaffold-free 3D model can be used for high-throughput screening (HTS) in an effort to accelerate the process for identifying new leads for potential pancreatic cancer therapies. The scaffold-free spheroids were developed by seeding 2D cells derived from established pancreatic organoids. By utilizing this process, the authors were able to identify four leads out of 703 compounds using HTS and these leads were further tested using low-throughput assays, confirming the robustness of their technique.

This month's issue also contains a short communication on the CellRaft AIR® system. Stern, et al, in their article, "The CellRaft Air® system: A novel system enabling organoid imaging, identification, and isolation" answer the question of: how can organoids be more conducive to high-throughput screening? Although organoids provide an attractive alternative to 2D cell culture models for disease research, traditional organoid culture methods are low-throughput and labor intensive. This article presents new technologies aimed at automating organoid assays to improve disease modeling and drug discovery. Traditional methods of culturing organoids result in random arrangements of organoids, making them difficult to image due to overlapping structures. To reduce this bottleneck, the new 3D CytoSort Array provides segregated microwells that can each be seeded to produce single organoids in each well. Each microwell contains an optically transparent cell culture surface called a CellRaft. The CellRaft can either be manually or automatically dislodged from the microwell and inserted into a 96-well tissue culture of PCR using a magnetic wand. Access this study for a full explanation of this new technology, as well as proof-of-concept experiments aimed at demonstrating the product's utility.

This issue of *SLAS Discovery* includes seven articles and one editorial:

- SLAS special issue editorial 2022: 3D cell culture approaches of microphysiologically relevant models
- Development of high-throughput lacrimal gland organoid platforms for drug discovery in dry eye disease
- Lead identification using 3D models of pancreatic cancer
- Mass spectrometry-based proteomics of 3D cell culture: A useful tool to validate culture of spheroids and organoids
- deepOrganoid: A brightfield cell viability model for screening matrix-embedded organoids
- Epithelial 3D-spheroids as a tool to study air pollutant-induced lung pathology
- Multifunctional profiling of triple-negative breast cancer patient-derived tumoroids for disease modeling
- The CellRaft AIR® system: A novel system enabling organoid imaging, identification, and isolation

Access to this issue of *SLAS Discovery* is available https://www.sciencedirect.com/journal/slas-discovery/vol/27/issue/3

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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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