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Contact Information:

Jill Hronek, Director of Marketing Communications

Telephone: +1.630.256.7527, ext. 103

E-mail: jhronek@slas.org

Announcing the *SLAS Discovery* Editor's Top 10 for 2022

The SLAS Discovery Editor's Top 10 annually showcases ten individual articles that stand out as the most innovative scientific achievements published in SLAS Discovery in the past 12 months.

Oak Brook, IL – In 2022, *SLAS Discovery* completed its first year of open access publishing, introduced Protocols articles, and increased its impact factor to 3.341.

The *SLAS Discovery* Editor's Top 10 for 2022 highlights articles that contribute to the journal's goals in educating and encouraging scientific collaboration by addressing the common and topical interests in drug discovery and the life sciences. These top 10 articles include new COVID-19 drug discovery efforts using high-throughput screening approaches; proving the necessity for developing new ways to represent diseased patient tissues more accurately with 3D organoid systems; and efforts to identify potential treatments for diseases without a known cure, such as autism spectrum disorder and obesity.

SLAS Discovery Editor-in-Chief Robert M. Campbell, Ph.D. (Redona Therapeutics), acknowledges the authors, editors and reviewers for their time and dedication in delivering fascinating research to *SLAS Discovery* and its readers. The *SLAS Discovery* [Editor's Top 10 editorial](#) is published in Volume 28, Issue 1 of *SLAS Discovery*.

[Discovery of SARS-CoV-2 main protease covalent inhibitors from a DNA-encoded library selection](#)

By Rui Ge, Zuyuan, Jian Yin, Wenhua Chen, Qi Zhang, Yulong An, Dewei Tang, Alexander L. Satz, Wenji Su, Lettian Kuai (*SLAS Discovery* **2022**, 27, 79-85)

[Detection and impact of hypoxic regions in multicellular tumor spheroid cultures formed by head and neck squamous cell carcinoma cells lines](#)

By David A. Close, Paul A. Johnston (*SLAS Discovery* **2022**, 27, 39-54)

[Lead identification using 3D models of pancreatic cancer](#)

By Virneliz Fernandez-Vega, Shurong Hou, Dennis Plenker, Hervé Tiriach, Pierre Baillargeon, Justin Shumate, Louis Scampavia, Jan Seldin, Glauco R. Souza, David A. Tuveson, Timothy P. Spicer (*SLAS Discovery* **2022**, 27, 159-166)

[Mass spectrometry-based proteomics of 3D cell culture: a useful tool to validate culture of spheroids and organoids](#)

By Thayna Mendonca Avelino, Marta García-Arévalo, Felipe Rafael Torres, Marieli Mariano Goncalves

Dias, Romenia Ramos Domingues, Murilo de Carvalho, Matheus de Castro Fonseca, Vanessa Kiraly Thomaz Rodrigues, Adriana Franco Paes Leme, Ana Carolina Migliorini Figueira (*SLAS Discovery* **2022**, 27, 167-174)

[Development of high-throughput lacrimal gland organoid platforms for drug discovery in dry eye disease](#)

By Teerapat Rodboon, Supansa Yodmuang, Risa Chaisuparat, Joao N. Ferreira (*SLAS Discovery* **2022**, 27, 151-158)

[Multifunctional profiling of triple-negative breast cancer patient-derived tumoroids for disease modeling](#)

By Evan F. Cromwell, Oksana Sirenko, Ekaterina Nikolov, Matthew Hammer, Courtney K. Brock, Margarite D. Matossian, Madlin S. Alzoubi, Bridgette M. Collins-Burow, Matthew E. Burow (*SLAS Discovery* **2022**, 27, 191-200)

[A high throughput screening assay for inhibitors of SARS-CoV-2 pseudotyped particle entry](#)

By Miao Xu, Manisha Pradhan, Kirill Gorshkov, Jennifer D. Petersen, Min Shen, Hui Guo, Wei Zhu, Carleen Klumpp-Thomas, Sam Michael, Misha Itkin, Zina Itkin, Marco R. Straus, Joshua Zimmerberg, Wei Zheng, Gary R. Whittaker, Catherine Z. Chen (*SLAS Discovery* **2022**, 27, 86-94)

[Identification of potent small molecule inhibitors of SARS-CoV-2 entry](#)

By Sonia Mediouni, Huihui Mou, Yuka Otsuka, Joseph Anthony Jablonski, Robert Scott Adcock, Lalit Batra, Dong-Hoon Chung, Christopher Rood, Ian Michelle S. de Vera, Ronald Rahaim Jr., Sultan Ullah, Xuerong Yu, Yulia A. Getmanenko, Nicole M. Kennedy, Chao Wang, Tu-Trinh Nguyen, Mitchell Hull, Emily Chen, Thomas D. Bannister, Pierre Baillargeon, Louis Scampavia, Michael Farzan, Susana T. Valente, Timothy P. Spicer (*SLAS Discovery* **2022**, 27, 8-19)

[Screening for modulators of autism spectrum disorder using induced human neurons](#)

By Sumitha Rajendra Rao, Ana Kostic, Pierre Baillargeon, Virneliz Fernandez-Vega, Mitzy Rios de Anda, Kelty Fletcher, Justin Shumate, Louis Scampavia, Joseph D. Buxbaum, Timothy P. Spicer (*SLAS Discovery* **2022**, 27, 128-139)

[Adipocyte-based high throughput screening for anti-obesity drug discovery: current status and future perspectives](#)

By Leo Tsui (*SLAS Discovery* **2022**, 27, 375-383)

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.

SLAS Discovery: Advancing the Science of Drug Discovery, 2021 Impact Factor 3.341. Editor-in-Chief Robert M. Campbell, Ph.D., Redona Therapeutics, Watertown, MA (USA)

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