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September Edition of *SLAS Discovery* Highlights “Applications of Functional Genomics for Drug Discovery”

Oak Brook, IL – September’s edition of *SLAS Discovery* features the cover article, “Applications of Functional Genomics for Drug Discovery” by Ami M. Kabadi Ph.D., (Element Genomics), Eoin McDonnell Ph.D. (Element Genomics), Christopher L. Frank Ph.D., (Element Genomics), and Lauren Drowley Ph.D., (UCB Biosciences). The article reviews how functional genomic tools are better able to understand the biological interplay between genes, improving disease modeling and identifying novel drug targets.

Many diseases, such as diabetes, cancer and neurological disorders, are caused by a dysregulation of a complex interplay of genes. Studies have identified thousands of disease-linked polymorphisms in the human population but detailing the causative gene expression or functional changes underlying those associations has proved inconclusive.

High attrition rate of therapies in clinical development is a major challenge facing current drug development. Pharmaceutical companies are responding by expanding ways to identify new targets, with greater emphasis on human genetics and functional genomic technologies. Functional genomics is an emerging field of research with the primary goal being to deconvolute the link between genotype and phenotype by using large -omic data sets and next-generation gene and epigenome editing tools to alter particular genes of interest.

In this issue, Kabadi, McDonnell, Frank and Drowley review the recent history and tools for functional genomics and summarize how these approaches are being used to improve the drug development process.

Articles of original research in the issue include:

- A KNIME Workflow for Automated Structure Verification
- Development and Optimization of a High-Content Analysis Platform to Identify Suppressors of Lamin B1 Overexpression as a Therapeutic Strategy for Autosomal Dominant Leukodystrophy
- Identification of a Triple Drug Combination That Is Synergistically Cytotoxic for Triple-Negative Breast Cancer Cells Using a Novel Combination Discovery Approach

- HTS-Compatible CometChip Enables Genetic Screening for Modulators of Apoptosis and DNA Double-Strand Break Repair
- A Novel Flow Cytometric Assay to Identify Inhibitors of RBPJ-DNA Interactions

Additional articles within the September issue include:

- Controlling Phosphate Removal with Light: The Development of Optochemical Tools to Probe Protein Phosphatase Function
- Applications of Functional Genomics for Drug Discovery
- Advances in Antibody-Drug Conjugate Design: Current Clinical Landscape and Future Innovations
- Target-Directed Approaches for Screening Small Molecules against RNA Targets

Access to September's *SLAS Discovery* issue is available at <https://journals.sagepub.com/toc/jbxb/25/8> through October 20. For more information about SLAS and its journals, visit www.slas.org/journals. Access a "behind the scenes" look at the latest issue with *SLAS Discovery* Author Insights podcast. Tune in by visiting <https://www.buzzsprout.com/1099559>.

SLAS (Society for Laboratory Automation and Screening) is an international community of 16,000 professionals and students dedicated to life sciences discovery and 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, 2019 Impact Factor 2.195. Editor-in-Chief Robert M. Campbell, Ph.D., *Twentyeight-Seven Therapeutics*, Boston, MA (USA).

SLAS Technology: Translating Life Sciences Innovation, 2019 Impact Factor 2.174. Editor-in-Chief Edward Kai-Hua Chow, Ph.D., *National University of Singapore* (Singapore).

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