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**For Immediate Release:**

June 22, 2016

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**A Perspective on Implementing a Quantitative Systems Pharmacology Platform  
for Drug Discovery and the Advancement of Personalized Medicine**

**CHICAGO** – A new perspectives paper in the July 2016 issue of the *Journal of Biomolecular Screening* (JBS) reports how the University of Pittsburgh and broad-based collaborators have defined a practical strategy and platform that is being applied to therapeutic discovery and the advancement of personalized medicine. Their Quantitative Systems Pharmacology (QSP) strategy and platform should stimulate the paradigm shift from reactive population-based medicine to proactive personalized medicine by focusing on the patients at the starting- and end points.

Over the last several decades, the discovery and development of therapeutics has focused on the “average” patient to create “blockbuster” drugs that could treat everyone with the same disease. The traditional target centric and phenotypic drug development approaches have been successful, although the efficiency has been very low due to high development costs, long development times, and low clinical rates of success. In particular, complex diseases that represent major unmet medical needs require the identification of the mechanisms of disease progression to efficiently identify effective and safe therapies. In addition, over the past decade, researchers have recognized that heterogeneity in patient response to specific therapeutics correlates with genetic differences, leading to the need for companion diagnostics to match treatments with appropriate patient cohorts. Innovation has been identified as one of the key opportunities to improve the efficiency of developing therapeutics.

In the meantime, Quantitative Systems Pharmacology (QSP) has emerged as a new approach to therapeutic discovery and development that combines the fields of traditional pharmacology with systems biology. QSP also advances personalized medicine by harnessing patient clinical and molecular data from the outset. QSP is characterized by an integrated and iterative process of computational and experimental steps to discover and develop novel therapeutics that target the underlying biology in patient cohorts rather than the symptoms seen collectively at a population level. QSP depends on interdisciplinary collaborations among academics, clinicians, corporations and federal agencies.

JBS is one of two MEDLINE-indexed scientific journals published by SLAS (Society for Laboratory Automation and Screening). Visit JBS Online at <http://jbx.sagepub.com/content/21/6> to read “**A Perspective on Implementing a Quantitative Systems Pharmacology Platform for Drug Discovery and the Advancement of Personalized Medicine.**” For more information about SLAS and its journals, visit [www.slas.org/publications/scientific-journals](http://www.slas.org/publications/scientific-journals).

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**SLAS (Society for Laboratory Automation and Screening)** is an international community of more than 20,000 individual scientists, engineers, researchers, technologists and others from academic, government and commercial laboratories. The SLAS mission is to be the preeminent global organization providing forums for education and information exchange and to encourage the study of, and improve the practice of life sciences discovery and technology. For more information, visit [www.SLAS.org](http://www.SLAS.org).

SLAS publishes two internationally recognized, MEDLINE-indexed journals, now in their 21st year of publication. **The Journal of Laboratory Automation (JALA)** and **Journal of Biomolecular Screening (JBS)** uniquely serve life sciences discovery and technology professionals. Together, JALA and JBS address the full spectrum of issues that are mission-critical to this important audience, enabling scientific research teams to gain insights, increase productivity, elevate data quality, reduce lab process cycle times and enable experimentation that otherwise would be impossible.

Specifically, **JALA** explores ways in which scientists adapt advancements in technology for scientific exploration and experimentation. In direct relation to this, **JBS** reports how scientists develop and utilize novel technologies and/or approaches to provide and characterize chemical and biological tools to understand and treat human disease.

**Journal of Biomolecular Screening (JBS):** 2015 Impact Factor 2.218. Editor-in-Chief Robert M. Campbell, Ph.D., Eli Lilly and Company, Indianapolis, IN (USA).

**Journal of Laboratory Automation (JALA):** 2015 Impact Factor 1.297. Editor-in-Chief Edward Kai-Hua Chow, Ph.D., National University of Singapore (Singapore).