

MALDI PharmaPulse™

a breakthrough in high-throughput screening



Mass spectrometry (MS) addresses several issues in drug screening but up until now has only been suitable for lower-throughput secondary screening.

The new, fully automated MALDI PharmaPulse™ system is a high-throughput MS solution that has been developed to screen over 100,000 samples per day.

This complete robotic system, controlled entirely by centralised software, rapidly prepares and loads 96-, 384- or 1536-position MALDI targets into the mass spectrometer.

The MALDI PharmaPulse™ offers many benefits over traditional MS screening systems:

- faster**
 10-100 x faster than multiplexed LC/SPE-MS systems (analysis time as low as 0.54 sec/sample) no SPE or HPLC sample pre-treatment required
- reduces false-positives**
 Label-free detection minimises artefacts from interference with labels
- higher throughput**
 Over 100,000 samples screened per day - equivalent to traditional fluorescent-based systems due to MALDI-TOF MS speed and high density plate formats
- enables detection of previously unidentified products**
 MALDI-TOF MS detection of a broad range of native HTS products and substrates
- reduces cost & sample volume**
 100 x less solvent and 10-100 x less sample than multiplexed MS, enabling single well kinetic readouts

learn more about
MALDI Pharmapulse
 at the Bruker HTS
 workshop



see the technology at SLAS2016:

Mon, 3pm Novartis presentation	Mon, 3.30pm GSK presentation	Mon, 6.30-8.30pm Late night with LRIG	Mon, 1.00-3.00pm Poster	Tue, 1.00-3.00pm Poster
HT-MALDI-MS as a Complete Label-free Drug Discovery Platform: From Target Characterization Through High-throughput Screening to Hit Follow Up. Presented by Scott Busby, Novartis, USA Room 6D	The Evolution of MALDI-TOF Mass Spectrometry Towards Ultra High Throughput Screening - 1536 Well Format and Beyond. Presented by Melanie Leveridge, GSK, UK Room, 6D	Late night with LRIG: Rapid-Fire Innovation Session - MALDI PharmaPulse The Fastest MS System for Biochemical Screening. Presented by Meike Hamester, Bruker Daltonics, Room 6D	MALDI High-Throughput Screening Beyond 100,000 Samples Per Day in Drug Discovery #3055	High-throughput screening of Deubiquitylase enzyme activity/specificity and inhibitor screening by MALDI-TOF mass spectrometry. #2088

discover more at

http://highresbio.com/applications/mss/mass_spec.php

learn more
 about MALDI
 PharmaPulse



A complete biochemical screening solution to accelerate all phases of drug discovery

high-throughput mass spectrometry

Bruker autoflex speed for high-throughput MALDI-TOF (booth 1348)



- **Label-free detection** - high sensitivity detection of a broad range of native HTS products and substrates
- **Speed** - analysis of a complete 1536 MALDI target in less than 25 minutes
- **High performance** - patented smartbeam™ laser technology for unrivalled sensitivity and speed
- **Rapid method development** - simple and rapid assay development with no SPE or HPLC sample pre-treatment required
- **Automated** - comprehensive software package provides fully automated data acquisition and processing and is easy to use

www.bruker.com

miniaturised liquid handling

TTP Labtech's mosquito HTS liquid handler for high-throughput MALDI-TOF (booth 621)



- **Homogenous spot formation** - contact pipetting and uniform mixing
- **Low volume pipetting** - accurately and precisely pipettes 25 nL – 1.2 µL
- **Positive displacement** - pipettes any liquid type without adjustments
- **Multi-aspirate function** - sequential aspirations and simultaneous dispensing
- **Rigid pipette tips** - pierce the foil-sealed matrix plate eliminating evaporation
- **Continuous pipetting** - 36,000 disposable tips stored in one spool
- **High density array** - accurate positioning on to 1536 MALDI targets

www.ttplabtech.com

automation & software

HighRes Biosolutions automation for high-throughput MALDI-TOF (booth 1207)



- **Fully automated and integrated system** - from assay to analysis and reporting, every function is performed seamlessly and automatically
- **High capacity** - up to 48 high-density assay plates and/or MALDI targets can be loaded onto the system
- **Single software system control** - intuitive Cellario software offers a single point of control for the entire system
- **Unattended operation** - a true walkaway system. Just load your samples and press go
- **Flexibility** - the ACell robot can reach any position on the system and even randomly access plates for analysis

www.highresbio.com

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