### dragonfly® discovery

unifying drug discovery



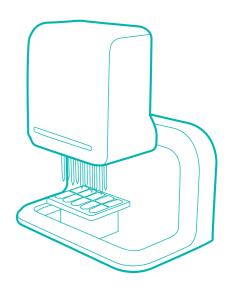
**sptlabtech** 

# significantly reduce assay development time and improve HTS efficiency

The complexities of assay development, and challenges associated with validating and transferring assays into HTS are well known bottle necks in the drug discovery process. SPT Labtech have sought to address this with the application of a novel liquid handling technology within a range of user friendly, low volume, liquid handling instruments that significantly reduce assay development time and greatly improve assay robustness in screening.

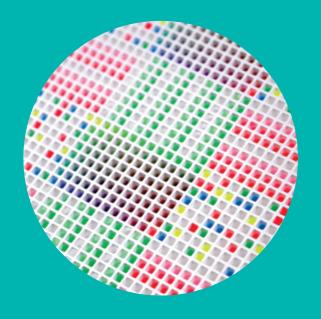


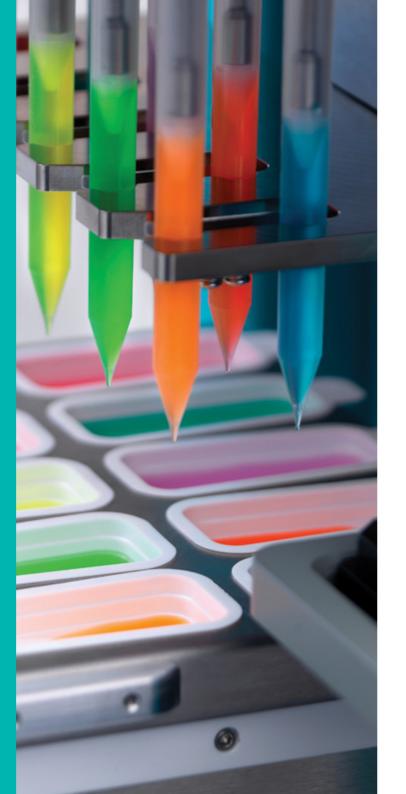
## meet dragonfly discovery



any liquid any volume any well any time

#### delivering screening efficiency through technology innovation





# dragonfly discovery gives scientists a common platform whereby they can easily develop complex assays, validate and screen them in a reliable, robust and cost efficient manner

This innovative technology enables assays to be developed directly in high density (up to 1,536 well) plate format using a common liquid handling platform that can also perform assay validation and subsequent HTS.

The commonality of dispense technology, combined with reliability of dispensing not only simplifies the process of assay development, but also significantly aids the smooth transition into HTS. The versatility of the instrument, and powerful software, provide the ideal platform for hit to lead and lead optimisation, thus enabling the same dispense technology to be used throughout the drug discovery process.



simple



productive



economical



reliable



versatile

#### assay development & validation

#### high throughput screening

#### hit to lead / lead optimisation

simple	Robust user friendly liquid handling with minimal set up time, irrespective of liquid class		
	<ul><li>✓ Simple walk up and use instrument</li><li>✓ Intuitive UI for complex assay design</li></ul>	<ul> <li>✓ Nothing to wash, maintain, check, calibrate prior to a run</li> <li>✓ Easy to set up reagent reservoirs</li> </ul>	<ul> <li>✓ Smooth transition from Assay Development through to Hit-to-lead</li> <li>✓ Automated work cell for small scale screening</li> </ul>
	A novel, low volume liquid handling technology that significantly reduces assay development time and greatly improves assay robustness in screening		
productive	<ul> <li>✓ Simultaneous dispensing across 10 independent channels</li> <li>✓ Ability to program and run time-course assays</li> <li>✓ Same plate types used in AD and HTS</li> </ul>	<ul> <li>✓ High speed dispensing regardless of plate format</li> <li>✓ 1,536 well plate fill &lt; 3 mins, 384 well plate fill &lt; 1 min</li> <li>✓ Minimal down time</li> </ul>	<ul> <li>✓ Allows set up of more complex assays</li> <li>✓ Cut down hit-to-lead cycle time with efficient target screening</li> </ul>
reliable	Reliable low volume, non-contact dispensing from disposable positive displacement tips		
	<ul> <li>✓ Reliable low volume dispensing of precious reagents</li> <li>✓ No liquid classification or compatibility issues</li> </ul>	<ul> <li>✓ Inherently reliable technology</li> <li>✓ No clogging or blocking of nozzles</li> <li>✓ Zero cross-contamination</li> </ul>	<ul> <li>✓ Reliable dispensing of challenging reagents combined with robust automation enabling efficient assay set up and screening</li> <li>✓ Eliminates assay variation</li> </ul>
versatile	The same dispense technology can be used at all stages of the drug discovery process, easing assay transition		
	<ul> <li>✓ Broad dynamic range, 200 nL - 4 mL (20,000:1)</li> <li>✓ Powerful assay development specific software enables DoE</li> <li>✓ Dispense directly into 96, 384 or 1,536 well plates</li> </ul>	<ul> <li>✓ Automation friendly for integration on any screening system</li> <li>✓ Widely compatible with any liquid type including: cells, beads,</li> <li>DMSO, detergents and viscous samples</li> </ul>	<ul> <li>✓ Manual or automated operation</li> <li>✓ Combined assay development and screening capability</li> </ul>
economical	Enables rapid assay development and a significant savings of precious samples and reagents		
	<ul><li>✓ Ultra-low dead volumes</li><li>✓ Develop assays directly in high density plates</li></ul>	<ul><li>✓ Low running costs</li><li>✓ Robust dispesning performance</li></ul>	<ul> <li>✓ Easy transition of screening protocols reduces FTE set-up time</li> <li>✓ Allows use of costly reagnets</li> </ul>

### tip technology

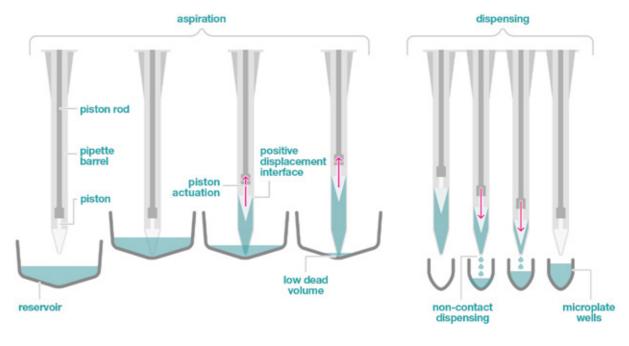


more than just dispensing

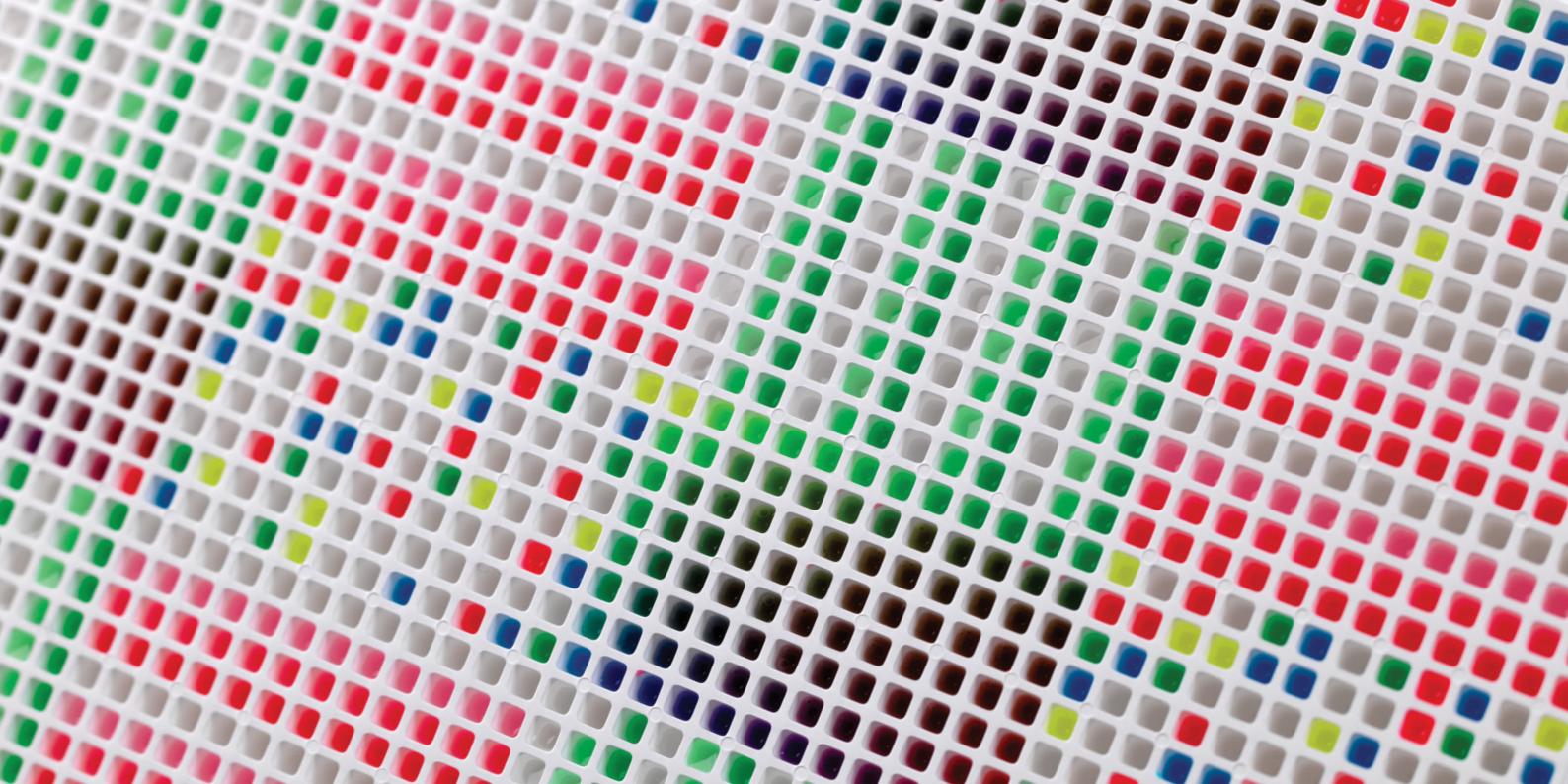


### non-contact dispensing from a disposable, positive displacement tip

In each of the channels (up to 10) there is a tight fitting piston that travels within a pipette barrel, when coupled to the instruments piston rod the positive displacement syringe is formed. The distance and rates of acceleration and deceleration of the piston control how and when liquid is ejected from the tip.



Each channel is fully independent of the others, yet they can all be operated simultaneously, giving rapid, but highly flexible dispensing. This enables complex combination gradients to be set up in high density (up to 1,536 well) microplates, as well as high speed bulk filling of common reagents.



#### get in touch

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