

A VERSATILE FLOWCELL FOR AUTOMATION OF CYCLIC MICROSCOPY

TECHNOLOGIES

BENEFITS

- **MINIMISES DISTORTION:** Keeps your sample intact between imaging runs.
- **COMPATIBLE:** The flowcell can be assembled on standard microscope slides and is compatible with most imaging systems. It can be used to process archive tissue.
- **COST-EFFECTIVE:** This method would cut by four the time needed to process cyclic RNA/protein imaging of standard histology material.
- **IN PARALLEL PROCESSING** of ISH samples. Independent temperature control and liquid handling for maximum flexibility.

PROBLEM

Spatial genomic analysis represents the next frontier for human tissue research and histopathology, and will profoundly impact the market for diagnostics and biomarkers. However, monitoring large number of markers requires multiple tissue processing and imaging steps, and there are currently no instruments that enable automated processing of standard histology material – tissue sections on slides – for cyclic microscopy.

SOLUTION

A flowcell-based instrument to automate cyclic RNA/protein imaging of standard histology material without the need to manually manipulate the samples. This tool allows for:

- The delivery of full automation of the iterative histology and imaging cycles, drastically reducing manual input cf. existing instruments (Bond Rx).
- Keep tissue sections in their respective flow cells throughout the entire experiment, minimizing tissue distortion due to repeated coverslip removal.
- Save reagent costs, target 20% (£10-12) per slide, across all cycles.
- Accept standard tissue slides rather than bespoke or custom size tissue mounts (e.g. Akoya).

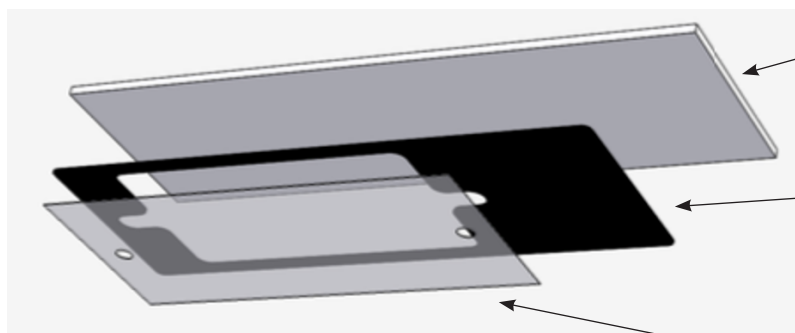
COMPARABLE TECHNOLOGIES

All competitor products have been designed to address IHC as a primary assay, ISH is secondary and cyclic histology requires a great deal of manual input. Higher-plex ISH methods are still relatively new, and current equipment manufacturers do not adequately address user needs in this area.

APPLICATIONS

- Automated Spatial Genomics

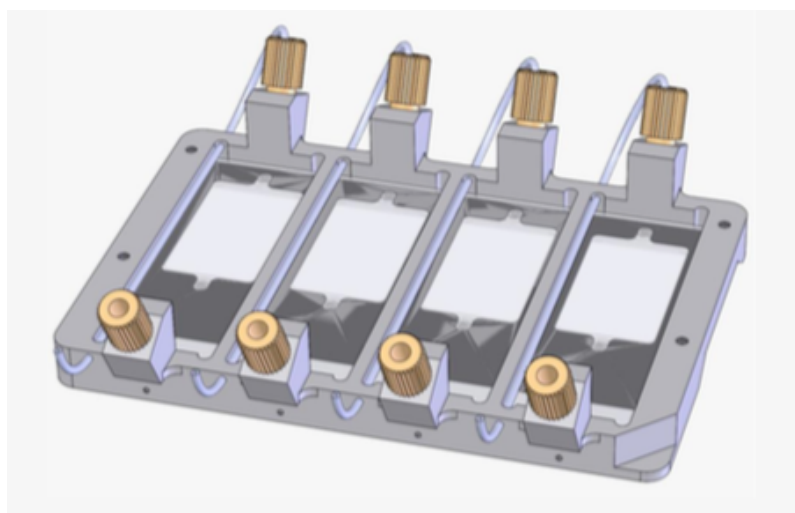
TECHNOLOGIES



Standard slide size

Gasket

Cover slip with liquid
handling parts



*Parallel slide processing platform
compatible with multiple microscope
formats, with independent liquid handling
channels for flexible tissue processing.*



CONTACT

Dr Gary P. Dillon
Business Development Manager
E: gd5@sanger.ac.uk

INTELLECTUAL PROPERTY

Priority patent application filed.
The Wellcome Sanger Institute is offering non-exclusive
licenses to its IPR