

A Compact Platform For The Deterministic Assembly Of Microfluidic Droplets

Tech ID: 34517 / UC Case 2019-120-0

VALUE PROPOSITION

Studying the interactions between biomolecules, reagents, cells or combinations thereof involves bringing such components together under certain conditions. Developments in discrete entity microfluidics have provided tools for manipulating single cells and small volumes of reagents or biomolecules. However, such microfluidic manipulations generally only involve sorting each discrete entity into a particular microfluidic channel. Thus, such microfluidic devices lack the ability to selectively combine discrete entities.

TECHNOLOGY DESCRIPTION

UCSF investigators have developed and demonstrated methods for selectively combining multiple discrete entities (cells, reagents, beads etc) into a single microfluidic droplet for detection and analysis.

PATENT STATUS

Country	Type	Number	Dated	Case
Australia	Issued Patent	2020275792	10/02/2025	2019-120
Japan	Issued Patent	7747522	09/22/2025	2019-120
United States Of America	Issued Patent	12,383,900	08/12/2025	2019-120
China	Issued Patent	ZL202080050695.8	04/05/2024	2019-120
European Patent Office	Published Application	3969176	03/23/2022	2019-120
Canada	Published Application			2019-120

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OTHER INFORMATION

KEYWORDS

cardiovascular, immunology, oncology, high throughput, drug discovery assay, functional assay, microfluidics, droplets

CATEGORIZED AS

- **Biotechnology**
- Health
- **Medical**
- Devices
- Diagnostics
- Imaging
- Other
- Research Tools
- Screening
- **Nanotechnology**
- Tools and Devices
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