Automated CD Microfluidic Device for Cell Culture

Tech ID: 24432 / UC Case 2014-796-0

BRIEF DESCRIPTION

An automated media exchange CD microfluidic device that may be used for cell culture or in vitro fertilization.

FULL DESCRIPTION

In order to culture cells during processes such as in-vitro fertilization, cells are placed sequentially in various media at specified time intervals by a lab technician. In order to prevent operator errors and reduce handling processes that are detrimental to the viability of the cells, researchers at the University of California, Irvine have developed an automated CD microfluidic device that may be used for cell culture or in vitro fertilization.

The fabricated CD microfluidic device contains a network of media filled reservoirs connected by microfluidic channels, and the device is mounted on a spinning motor which is controlled by a computer. The device allows the cells to stay in the same chamber while different media flow through the cell-containing chamber. The various media are maintained in the chamber containing the cells for the prescribed duration of time.

SUGGESTED USES

This device may be used for cell culture or in vitro fertilization.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	10,166,541	01/01/2019	2014-796

STATE OF DEVELOPMENT

A prototype of this device has been fabricated.

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OTHER INFORMATION

KEYWORDS

Microfluidic device, CD, Centrifugal, In Vitro fertilization, Cell culture

CATEGORIZED AS

- **Medical**
  - Devices
  - Disease: Women's Health
  - Research Tools
- **Research Tools**
  - Other

RELATED CASES

2014-796-0

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