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Sieve Container For Contactless Media Exchange For Cell Growth

Tech ID: 27568 / UC Case 2016-920-0

BRIEF DESCRIPTION

Media that contains nutrients and growth factors is necessary to grow all types of cells, a process that is widely used in many fields of research. Such media should be routinely changed either to different media or a fresh batch of the same media. This change currently involves either using a pipette to transfer cells from their current dish of media to a new dish, or aspirating the media out of the dish and replacing it with new media. Both methods have inherent risks to stressing and damaging the cells. Researchers at UCI have developed a unique dish for growing cells that allows for safer aspiration of the old media, which reduces stress and damage to the cells.

FULL DESCRIPTION

Media that contains nutrients and growth factors is necessary to grow all types of cells, a process that is widely performed in many fields of research. Often, researchers seek to control the growth of cells by switching between different types of media that have specific nutrients and growth factors. Additionally, routine replacement of the same type of media is necessary for the healthy growth of cells, in order to remove waste produced from the cells. Currently, cells are pipetted from their current dish of media to a new dish of media, in a process that is stressful to the cells and could cause damage. Alternatively, the original media can be aspirated from the dish and replaced with new media. This poses the inherent risk of the cells being accidentally aspirated along with the media. The present invention is a specialized beaker that allows for the media to be suctioned out of it, while using a sieve design, or tiny holes that are smaller than the diameters of the cells, to keep the cells from being removed along with the media. Fresh media can then be added to the top of the device. This process can be performed repeatedly with no stress or damage to the cells, or direct handling of the cells required. Such a device has a very large applied significance and could lead to the use of a new type of lab dishware.

SUGGESTED USES

Cell growth and maintenance

ADVANTAGES

(1) Avoids handling of cells; and (2) Reduces damage and stress to cells.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20220025314	01/27/2022	2016-920

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OTHER INFORMATION

KEYWORDS

Media, growth factors, growth of cell, remove waste, pipette, stress, cell, damage, aspirate, specialized, beaker, suction, sieve design, tiny hole, small, diameter of cell, prevent cells from being removed, repeated, lab, dishware, contactless, exchange, sieve container

CATEGORIZED AS

» **Environment**

» Other

» **Medical**

» Disease:

Autoimmune and Inflammation

» Disease: Blood and Lymphatic System

- » Disease: Cancer
- » Disease: Cardiovascular and Circulatory System
- » Disease: Central Nervous System
- » Disease: Dental
- » Disease: Dermatology
- » Disease: Infectious Diseases
- » Disease: Kidneys and Genito-Urinary System
- » Disease: Metabolic/Endocrinology
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- » Disease: Ophthalmology and Optometry
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