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Anti-aggregation Device

Preventing cell aggregation through efficient mixing in infusion bags for improved suspension quality and flow



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IP Status

Patent application submitted

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Seeking

Development partner, Licensing

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Background

Cell therapies, such as tumour infiltrating lymphocytes, CAR-T cells, and stem cells, have the potential to revolutionize oncology and hematology. However, the production of cell suspensions for infusion is challenging and costly, and any loss of cells due to aggregation in the infusion bag should be avoided. While adding chemical agents can prevent aggregation, it limits the applicability of the cell suspension and manual intervention is currently the only solution for mixing cells during infusion.

Tech Overview

The invention addresses the problem of preventing cell aggregation in a cell suspension. The inventors have discovered that by mixing the cell suspension within the infusion bag during the infusion process, aggregation can be avoided. The invention describes an anti-aggregate device that comprises means for mixing the liquid in the infusion bag and a casing, which allows for the homogeneous distribution of cells, nutrients, or other soluble components and prevents flow issues in the tubing.

Benefits

- Uniform distribution: Maintains homogeneous distribution of cells, nutrients, or components in liquids.
- Improved product quality: Ensures quality and efficacy of medical treatments, pharmaceuticals, and food products.
- Enhanced patient care: Accurate delivery of medications, minimizing complications and inconsistent dosing.

Applications

- Intravenous therapy: The anti-aggregate device can be used in IV therapy to maintain a homogeneous distribution of medication, fluids, or nutrients within the infusion bag, ensuring consistent delivery to the patient.
- Parenteral nutrition: For patients receiving parenteral nutrition, the anti-aggregate device can help maintain a homogeneous distribution of nutrients, preventing blockages and ensuring optimal nutrient delivery.

Opportunity

PACTT offers to grant exclusive or non-exclusive license to industrial partners able to develop and commercialize the technology.

Learn more about this opportunity

About IN-PART

Scientific collaborations should solve real-world problems and bring a positive impact to society. That's why we facilitate and accelerate the bench-to-bedside journey by connecting the right partners from industry and academia.

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