

Drug Discovery and Development

Polymer-based product streamlines population cell analysis

Brief Description of Technology

Single cell labeling method to aid in applied medicine and drug development

TECHNOLOGY ID

2019-0419

BUSINESS OPPORTUNITY

Exclusive License or Sponsored
Research

TECHNOLOGY TYPE

Research Tool

PATENT INFORMATION

PCT Filed

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Technology Overview

Single-cell genomic, transcriptomic, and proteomic analyses have revolutionized quantitative biology and applied medicine. Innovative techniques for high-throughput oligonucleotide sequencing have opened the path for an array of innovative strategies for the treatment and isolation of specific cell types and their subsequent investigation in downstream analysis. Existing single-cell applications, however, that rely on single-cell labeling can become laborious, costly, and time-consuming for population-scale analysis when more than one population of cells is needed because each population of cells will be labeled separately. Thus, there is a need in the art for improved methods for cell labeling and tracking. This polymer-based cell labeling technology is a research tool that accelerates single cell analysis, population cell analysis, and drug development.

Applications

Single-cell analysis, population cell analysis, cell sorting and drug development.

Advantages

- Enables complex population screenings with traceable technology.
- Streamlines inexpensive multiplex barcoding of cell populations.

Market Overview

Given its critical role in drug development, single cell analysis market in terms of revenue was estimated to be worth \$3.5 billion in 2023 and is poised to reach \$7.1 billion by 2028, growing at a CAGR of 15.3% from 2023 to 2028.

Investigator Overview

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