



DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government Owned Inventions Available for Licensing and/or Collaboration: Automated Cell Radiolabeling Device Using Acoustophoresis Micro-Fluidic Technology

AGENCY: National Institutes of Health, HHS.

ACTION: Notice.

SUMMARY: The National Cancer Institute (NCI), an institute of the National Institutes of Health (NIH), Department of Health and Human Services (HHS), seeks research co-development partners and/or licensees for an automated acoustophoresis device to radio-label and isolate cells. This invention is owned by an agency of the U.S. Government and is available for licensing to achieve expeditious commercialization of results of federally-funded research and development.

FOR FURTHER INFORMATION CONTACT: Inquiries related to these licensing opportunities should be directed to Eric Cheng, Ph.D., Technology Transfer Manager, NCI, Technology Transfer Center, Email: eric.cheng2@nih.gov or Phone: 240-276-5978.

SUPPLEMENTARY INFORMATION: This technology includes an automated cell radiolabeling device that utilizes acoustophoresis microfluidic technology. The device streamlines the radiolabeling process by integrating cell washing and concentrating steps, which enhances reproducibility and standardization. This innovation simplifies the GMP (Good Manufacturing Practice) compliance for radiolabeling cells intended for human use. It also addresses the limitations of current manual methods that rely on centrifugation. The result is a benchtop system designed for clinical radio-pharmacies, ensuring efficient and reliable cell preparation for diagnostic and therapeutic applications.

This Notice is in accordance with 35 U.S.C. 209 and 37 CFR Part 404.

NIH Reference Number: E-096-2021.

Product Type: Device.

Therapeutic Area(s): Oncology.

View Technology Webinar: Automated Acoustophoresis Device to Radio-Label & Isolate Cells for Immunotherapy and Isolated Cells for Immunotherapy Treatment

Potential Commercial Applications:

- Clinical radio-pharmacies for radiolabeled cell diagnostics.
- Research institutions focused on cellular therapies and diagnostics.
- Pharmaceutical companies developing radiolabeled therapeutics.

Competitive Advantages:

- Fully automated process reduces manual intervention, increasing efficiency and consistency.
- Micron-scale acoustophoresis technology enhances reproducibility and standardization of cell radiolabeling.
- Streamlined GMP compliance simplifies regulatory processes for clinical applications.
- Benchtop system.

Publication:

- Adler, S, et al. Using Acoustophoresis Cell Washing In The Immune Cell Radiolabeling Procedure. (https://jnm.snmjournals.org/content/63/supplement_2/2755).

Patent Status: U.S. Patent Application 18/290,4425 filed on November 13, 2023, pending.

Development Stage: Prototype.

Collaboration Opportunity: Researchers at the NCI seek licensing and/or co-development research collaborations for an automated acoustophoresis device to radio-label and isolate cells.

Dated: September 30, 2025.

Richard U. Rodriguez,

Associate Director,

Technology Transfer Center.

National Cancer Institute.

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