Exhaled Breath Condensate Biomarker Database

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ABSTRACT

Researchers at the University of California, Davis have developed a novel mass spectrometry database cataloging >2,000 biomarker compounds in exhaled breath condensate (EBC) for breath metabolomics research.

FULL DESCRIPTION

This unique database compiles critical data on biomarker compounds found in exhaled breath condensate (EBC), offering an invaluable resource for researchers and clinicians in the field of breath metabolomics. Developed by a dedicated team at UC Davis, this database fills a significant gap in analytical chemistry resources by providing a specialized library for the identification and analysis of biomarkers in EBC. With plans for updates every 3-5 years, the database promises to evolve alongside the field, incorporating new findings and advancements.

APPLICATIONS

- Academic and industrial research in breath metabolomics and related fields.
- Development of diagnostic tools and tests based on EBC biomarker identification.
- Enhancement of existing mass spectra database offerings by including specialized EBC biomarker data.

FEATURES/BENEFITS

- Fills a critical gap in breath metabolomics research.
- Facilitates the identification of biomarkers for various diseases.
- Supports both academic and industry research.
- Offers potential for regular updates with new data.
- Provides a foundation for developing diagnostic tools.
- Addresses the shortage of specialized breath metabolomics databases.
- Eases the process of identifying biomarkers for disease detection.
- Ensures continuous access to the latest biomarker data.

INVENTORS

- Davis, Cristina E.

OTHER INFORMATION

KEYWORDS

analytical chemistry, biomarkers, biotechnology, breath metabolomics, disease diagnosis, exhaled breath condensate, metabolomics research, pharmaceuticals, research tools, mass spectrometry

CATEGORIZED AS

- **Biotechnology**
  - Bioinformatics
- **Medical**
  - Diagnostics
  - Disease: Respiratory and Pulmonary System
- **Research Tools**
  - Bioinformatics
  - Reagents

RELATED CASES

2025-468-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Heated Dynamic Headspace Sampling Device for Volatile Organic Compounds (VOCs) from a Surface
- A Silicon Microneedle Array Atmospheric Pressure Plasma Ionization Source for Real-Time Trace Gas Chemical Analysis

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