

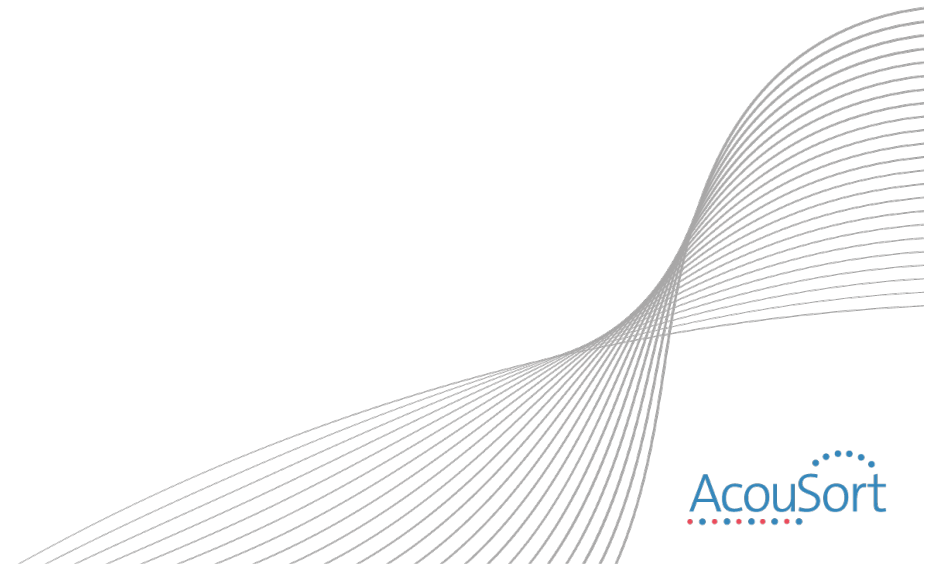
Gentle, automated, robust

# AcouSort Investor Presentation

## The future of bio-sample preparation

November 2024

**Torsten Freltoft, CEO**  
2024.11.27



# AcouSort in brief

## AcouSort

- Founded in 2010, Lund, Sweden
- AcouSort **develops, produces and supplies components enabling automated refinement** of biological samples such as blood and cell samples, providing device manufacturers with a state-of-the-art capability to integrate sample processing steps that traditionally have been performed manually.
- The company is commercializing the proprietary acoustofluidics technology developed by Professor Thomas Laurell's group at Lund University, Sweden.
- Listed on Spotlight since 2017 and First North since December 2020 (Ticker: ACOU)
- Market capitalization: 200+ MSEK (November 2024)

## Facts 2023/24

Total income  
10.6 MSEK (2023)  
6.8 MSEK (Q1-Q3-2024)

Operating results  
-17.5 MSEK (2023)  
-12.2 (Q1-Q3 2024)

Cash and Cash equivalents  
24.0 MSEK (ult 2023)  
9.5 MSEK (ult Q3 2024)

Employees  
20  
Collaborations  
10+

# Market overview

## Diagnostic Testing

- Global **point-of-care** market estimated at USD 40.6 billion in 2021 and is expected to reach around **USD 103.2 billion by 2030\***
- >75% of all blood samples need plasma separation
  - Current methods give >6% sample preparation errors

## Novel Cell Therapies

- Global market size in 2022 valued at USD 21.6 billion with an expected CAGR of 14.15% from 2023 to 2030 thus exceeding **USD 60 billion in 2030\*\***
- Around 500 kUSD per treatment\*\*\*

**AcouSort provides:** *Integrated and automated sample preparation solutions enabling rapid and precise diagnostics and therapeutics*

## Significant healthcare challenges

### Address top 3 killers

- |                   |      |
|-------------------|------|
| 1. Cardiovascular | 29 % |
| 2. Infections     | 23 % |
| 3. Cancer         | 12 % |

**Total** 64 %

### Development needed to remedy

- Late diagnosis
- Labor-intensive testing
- Highly manual cell processing
- Expensive treatments
- Risk of contamination

\* <https://www.precedenceresearch.com/point-of-care-testing-market>

\*\* <https://www.grandviewresearch.com/industry-analysis/cell-therapy-market>

\*\*\* <https://www.aimc.com/view/improving-outcomes-and-mitigating-costs-associated-with-car-t-cell-therapy>

# Picks and Shovels

## Point-of-Care diagnostics

- No cell laboratory available
- Automated sample preparation required for blood
- Centrifugation & sample pipetting must be replaced

## Autologous cell therapy

- Cell Processing must be done in closed sterile system
- Automated sample processing required
- Centrifugation & sample pipetting must be replaced

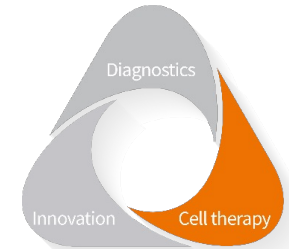
**AcouSort provides critical Picks and Shovels needed for coming automated bio-sample processing solutions**



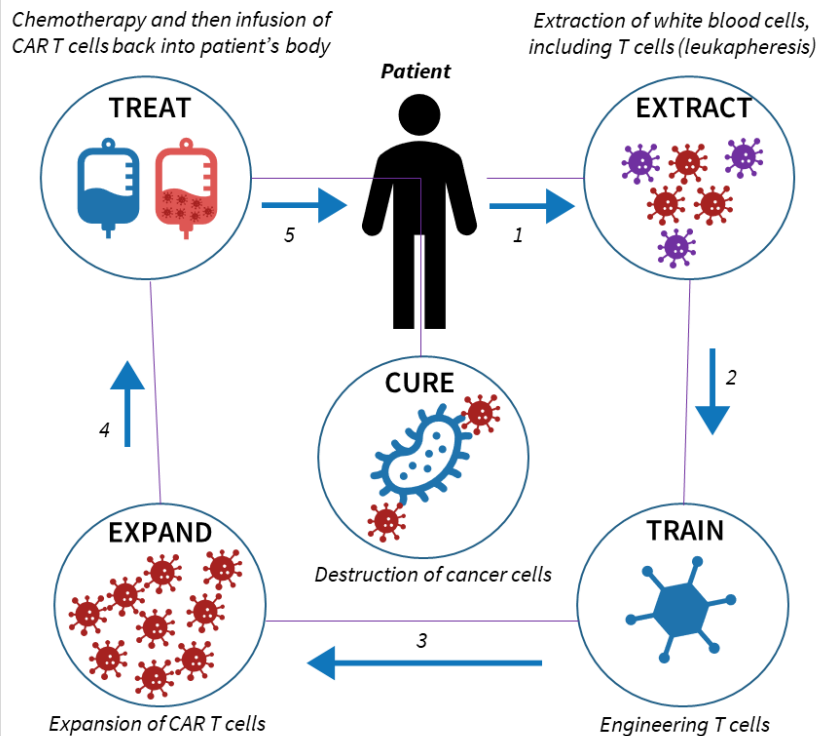
## Today's picks and shovels in cell processing labs

- **Pipettes**
- **Centrifuge**
- **Test tubes**
- **Syringes**
- **Glassware**
- **Sterile plastics**
- Culturing media
- Cell incubators
- Cell counters
- Microscope
- LAF bench
- Flow cytometer

# CAR-T Cell therapy – on the rise



## What is cell therapy?



## Challenges in current workflow

- Manual manufacturing processes
- High contamination risk during production
- High production cost – **500,000 USD/dose/patient**
- Patients are critically ill

## Highly innovative field

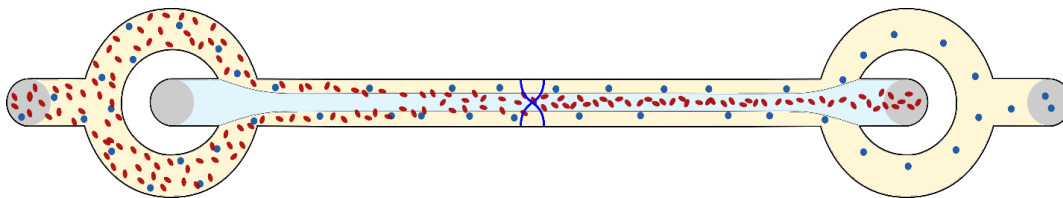
- Expand to new disease areas/indications
- Automate production workflow to improve safety & cost
- Almost all major life science players active

**Automated cell processing solution required**

# AcouSort's offering

## AcouSort's business strategy

- Provide AcouSort's unique technology to instrument manufacturers in the diagnostic, cell therapeutic and scientific instrumentation field
- Produce and supply consumable OEM separation modules
  - OEM modules are integrated into partners devices/systems
  - Recurring revenue as OEM modules are consumables
- Offer feasibility projects to streamline OEM integration



## Sample preparation automation

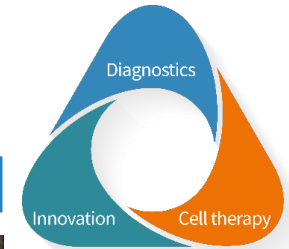


### Isolate and purify

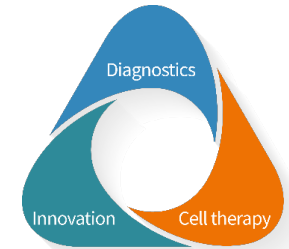
- Blood plasma
- Cells
- Exosomes
- Bacteria

Combine microfluidics with ultrasound creating a force on the particle that is used to move them in a microfluidic channel

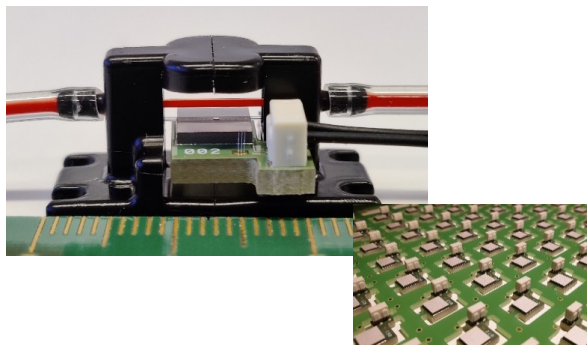
Versatile technology allowing for customization for wide variety of applications



# Product Portfolio overview: OEM



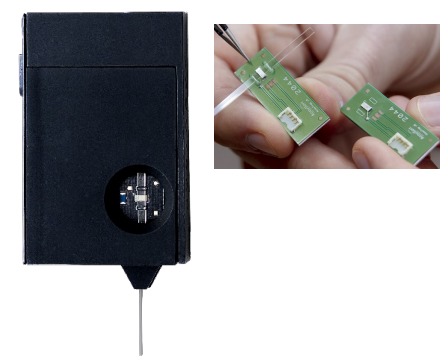
AcouPlasmaOptical OEM



AcouWash OEM



AcouTrap OEM



AcouSort's core technology available as OEM modules for integration projects:

- **AcouTrap** and **AcouWash** cartridges designed for streamlined integration
- Several chip/cartridge designs adapted for different applications
- **AcouPlasma** optical ready for high volume manufacturing

# Examples of two business cases

## Point-of-Care Diagnostics – one partnership

- POC system installed base: 30,000
- Average cartridge use / system / year: 17
- Total cartridges per year 500,000

Supply of one separation module per cartridge

- Revenue per OEM separation module USD 10-20
- **Annual revenue OEM sales USD 5-10M**

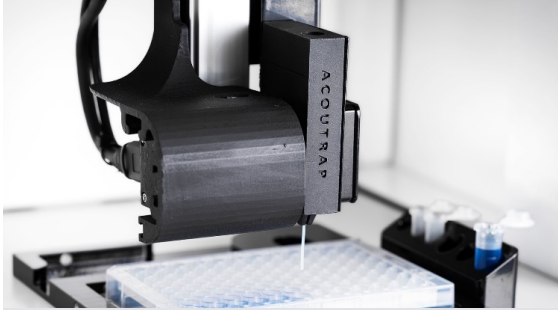
## Autologous Cell Therapy – one partnership

- Cell therapy system install base 50 (5 yrs after launch)
- Annual doses made per system 650
- Total cell therapy doses per year 32,500

Supply of separation modules per dose

- Revenue per OEM module package USD 300-500
- **Annual revenue OEM sales USD 10-16M**





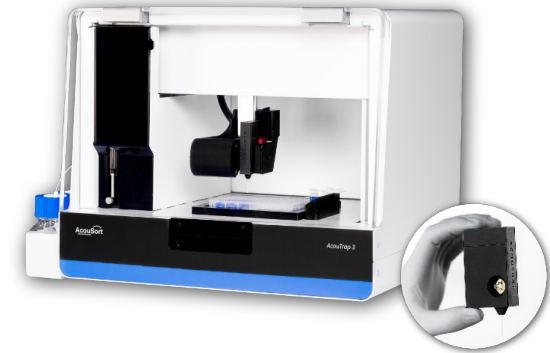
# Product portfolio overview: Research instruments

AcouWash



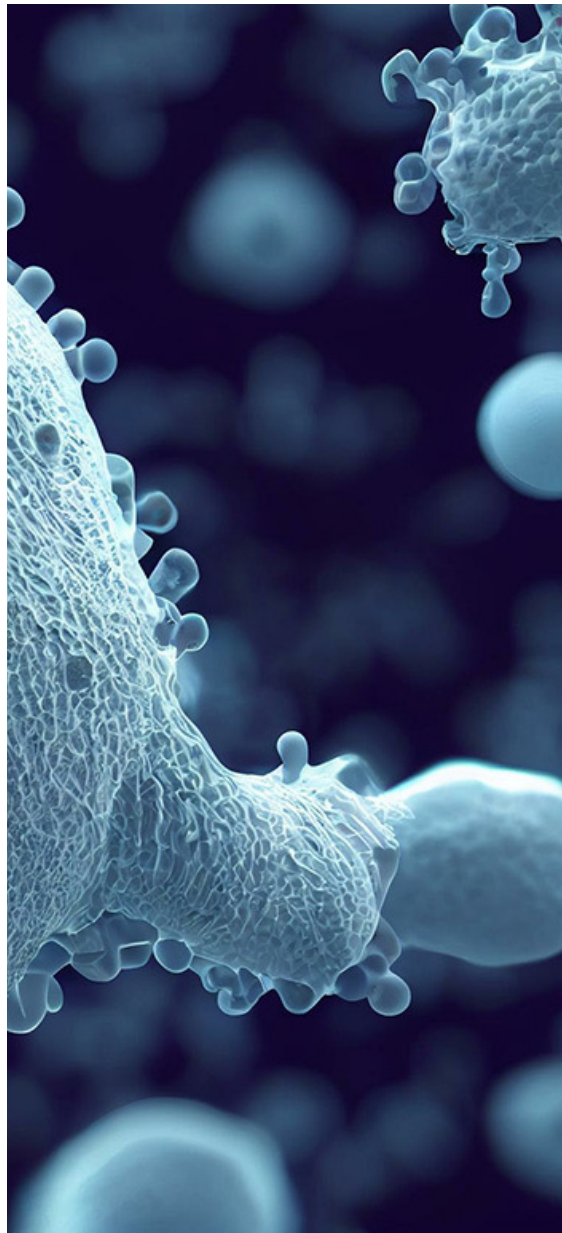
Blood fractionation, Cell separation, wash and up-concentration

AcouTrap



Preparation of cells, extracellular vesicles and bacteria/virus samples

Benchtop systems are sold to validate and develop new applications. The systems are also used in our OEM collaborations to develop and optimize applications before integration projects are started.



# Major milestones expected and **status** 2024

## Diagnostics

- Commercial launch of Partner’s diagnostic POC system
  - **WERFEN launched GEM-7000 blood-gas analyzer with hemolysis detection**
- Continue feasibility / prototyping collaborations with other partners
  - **proof-of-principle demo of blood plasma separation with a US based company**

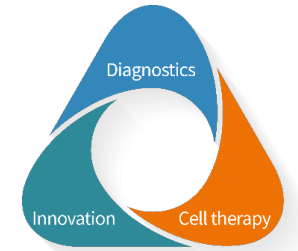
## Therapeutics

- Further mutual commitments with current life science partner
  - **Third phase adaptation project launched and ongoing**
- Establish feasibility / prototyping collaborations with other partners
  - **Two new partner collaboration projects launched**
  - **First delivery of AcouTrap consumables to GenSensor prototype**

## Research systems

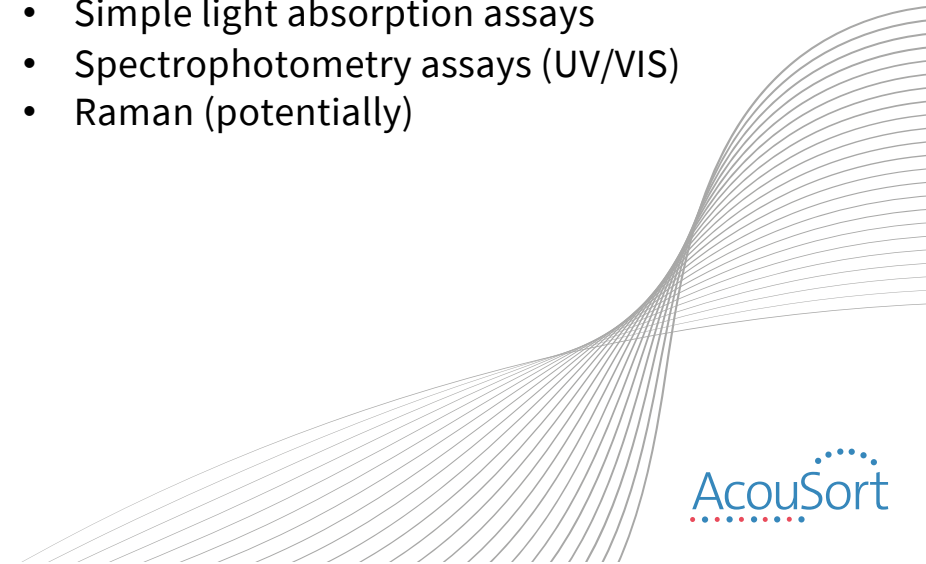
- **Focus on sale of AcouTrap for purification of extracellular vesicles**
  - **Placement of two AcouTrap systems at important Key Opinion Leaders in Canada and Ireland**
- **Flow cytometry applications**
  - **Two new partner collaborations launched**
  - **One AcouWash system placed at Key Opinion Leader at Univ. Michigan for cell isolation from dissociate tissue samples (cell biopsies)**

# ACOUPLASMA<sup>OPTICAL</sup> in action



## Features

- Separation time 1-2 seconds
- Inline access to cell density
- Optical access to cell medium
- Applicable for
  - Simple light absorption assays
  - Spectrophotometry assays (UV/VIS)
  - Raman (potentially)



# Werfen launch of GEM Premier 7000

**NEW**

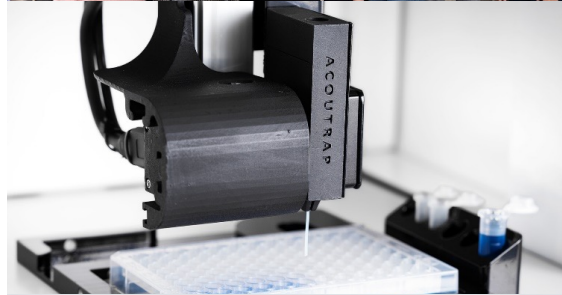
All tests on blood are performed in a semi-consumable cartridge

emolysis flag



Illustrations from [www.Werfen.com](http://www.Werfen.com)





## Wrap-up - why invest in AcouSort?

- **Validated technology** in commercial expansion phase
- **Improve management of severe diseases**
  - Enabling more rapid and accessible diagnostics and cell-therapeutics by providing automatable sample preparation OEM modules
- **Significant engagement** from life science companies within 3 fast-growing markets
- **Highly scalable business model** with recurring revenue potential from consumables

# Thank you!

 Medicon Village, Lund Sweden  
 [info@acousort.com](mailto:info@acousort.com)  
 [www.acousort.com](http://www.acousort.com)

  
*revolutionizing sample processing*