

Pioneering the Extracellular Vesicle field



Services

Extracellular Vesicle purification and characterization

About the Company



Pioneering the Extracellular Vesicle field

HansaBioMed Life Sciences LLC (HBM-LS) is a leading Company entirely dedicated to research and development of products in the field of Extracellular Vesicles (EVs). Its mission is to develop and commercialize proprietary platforms, kits, reagents and equipment for EV research in the Life Science market.

Our facilities are located in Tallinn (Estonia), in the Tallinn Technology Park (Tehnopol).

As of 2019 HansaBioMed Life Sciences is member of Exosomics S.p.A., a company founded on 2011 and focused on the IVD market.

Why to choose us

Experience: Being the oldest company entirely dedicated to Extracellular Vesicle research since 2007, Our scientists have over 10 years of experience in EV area, high background in molecular and cell biology, in cancer research, and development of diagnostics.



High project managment skills: Ensuring a successful outcome begins and ends with managing our client's projects. We have a deep expertise in project management, participating in the framework of international projects together with Academic and Industrial partners.



Custom design: We will custom design your solution to meet your specific requirements. We are part of an international network of key opinion leaders, life science and biotech experts.



Our CORE service



Purification of Extracellular Vesicles

- Scalable EV purification from biofluids, conditioned media, plants.
- Method: Tangential flow filtration and sixe exclusion chromatography.
- Separation of small (40 150 nm) and large (>150 nm) EVs.
- Alternative methods: ultracentrifugation, immunoaffinity.
- Validation: NTA (Zetaview, Particle Metrix), protein marker expression.

Phenotyping of Extracellular Vesicles

Characterization of EVs by the following methods:

- ELISA high throughput marker screening, ideal for biomarker discovery.
- Flow Cytometry: characterization by NanoFCM analyzer.
- Fluorescence NTA: characterization by Zetaview analyzer (Particle Metrix).





EV-OMICS service

Proteomic and trascriptomic analysis of EV markers:

- Mass spectrometry: Sample preparation and Q Exactive Plus 2h nano-LC/MS/ MS analysis with MaxQuant-based identification and quantitation.
- RNA seq: Library preparation with Nextflex kit. Sequencing done by Illumina Nextseq 500

Physical characterization of Extracellular Vesicles

Characterization of the EV morphology:

- Transmission Electron Microscopy (TEM).
- Immuno Electron Microscopy



Our research projects



Training in EXTRACELLULAR VESICLES for benefits in Health and Disease.



Isolation and QC of high yield, **EVFOUNDRY** high quality, QC incorporated bioprocess for EVs production in human use.



Integrated nanoparticle isolation and detection system for complete on-chip analysis.



Exosome Isolation Tool with nanofluidic concentration device.

Mobilitas Pluss Program



Therapeutic applications of plant-derived EVs with a focus on edible plants of Estonian origin.

Product Development



EAS

Methods for Extracellular Vesicles modification and engeneering.

exosomics

Exosomics Group Investors and founders



Capsugel











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