The BioWings project creates new opportunities for large-scale production and exosome-based diagnostics

AcouSort and its collaborators are now finishing the 4-year BioWings project which has developed new thin-film materials generating the ultrasound necessary to move cells in AcouSort's chips. The new materials enable more cost efficient and large-scale manufacturing. They are also the fundament of the new SEK 26 million AcouSome project, where a consortium led by AcouSort will develop chips to find exosomes in blood for research and future diagnostics. The two projects are presented in a free webinar December 12.

In April 2018, AcouSort was awarded EUR 180,000 in EU funding for participation in *BioWings* – a project targeting the development of new materials for generating ultrasound in biomedical devices. BioWings has been coordinated by the Technical University of Denmark and involved universities and private companies from Sweden, Denmark, Switzerland, Israel, and Italy. The total project has received EUR 3 million funding from EU and was completed on November 30, 2022.

AcouSort's role in the project has been to design acoustofluidics chips to be used together with new materials for ultrasound generation. The development of the new chips has been made in close collaboration with **Professor Thomas Laurell**'s research group at the Department of Biomedical Engineering, Lund University. Professor Laurell's team has evaluated how well the new materials work for applications in clinical diagnostics such as the separation of bacteria from blood samples for the diagnosis of blood poisoning (sepsis).

The technology developed in the BioWings project is very promising. Material researchers at the Technical University of Denmark (DTU), the Weizmann Institute, École Polytechnique Fédérale de Lausanne (EPFL) and PIEMACS have developed films which are thinner than a hair and which can be manufactured directly onto the acoustofluidic chips. The thin film materials can advance AcouSort's technology to a new level as they offer advantages in terms of reduced manufacturing costs as well as improved precision and repeatability in large scale production.

The technological achievements have not gone unnoticed. The inventions in the BioWings project were picked up by the EU Innovation Radar and now form the basis for new AcouSort patent applications as well as the new **AcouSome project** coordinated by AcouSort starting in January 2023. It will use technology from the BioWings project to develop groundbreaking technology to find exosomes in blood for research and diagnostics. The AcouSome project has been awarded SEK 26 million by the European Innovation Council (EIC).

"BioWings has been a very important project for AcouSort as it presents new opportunities for cost-effective large-scale, high-precision manufacturing. The AcouSome project will now build on the advances in the BioWings project targeting solutions for groundbreaking exosome-based diagnostics," says AcouSort's CEO Torsten Freltoft.

Do you want to know more about the BioWings and AcouSome projects?
On December 12, 2022, there will be a free webinar offering a unique opportunity to discover the innovations from the 4-year BioWings project in more depth as well as learning about the upcoming AcouSome project. Among the speakers are AcouSort's founder Professor Thomas Laurell and AcouSort's AcouSome project coordinator Pelle Ohlsson. More information and registration can be found here:
https://www.biowings.eu/online-workshop/

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About AcouSort

AcouSort AB (corporate registration number 556824-1037) is an innovative technology company focusing on developing products and solutions for integrated preparation of biological samples. With the help of sound waves, the company's products can separate blood cells, concentrate, purify and stain cells, exosomes and bacteria from biological samples. The technology of the company's products is acoustofluidics, where sound waves and microfluidics enable automated handling of samples in a range of application areas, from research on new biomarkers to the development of new diagnostic systems for near-patient testing – so-called Point-of Care (POC) systems. The company's commercialization strategy is based on the already proven business model of providing separation modules to diagnostic system manufacturers for integrated sample preparation as well as to continue the commercialization of the company's research instruments. With the help of the company's products and development of point-of-care tests, new diagnostic systems and treatments are enabled, addressing some of the most challenging disease areas of our time: cancer, infectious diseases and cardiovascular diseases. AcouSort is listed at Nasdaq First North Growth Market. The company's Certified Adviser is Erik Penser Bank, 08-463 83 00, mail to: certifiedadviser@penser.se Erik Penser Bank AB (publ), Apelbergsgatan 27, Box 7405, 103 91 Stockholm.