



## PRESS RELEASE

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# Aerosol and inhalation authority Per Gerde joins Board of Directors of Ziccum AB

**New Ziccum Board member Assoc. Prof. Per Gerde has over 55 peer-reviewed scientific papers and six patent families to his name. He is the original inventor of Ziccum's drying technology for pharmaceuticals, LaminarPace, and an authority on aerosol exposure technologies and inhalation toxicology. "Per brings decades of industry expertise to our Board, as well as his background knowledge of LaminarPace" says Ziccum Chairman Fredrik Sjövall, "we are delighted to welcome him".**

Per Gerde is Associate Professor of Inhalation Toxicology at the Division of Physiology, Institute of Environmental Medicine at Karolinska Institutet (retired, but remains associated), and the founder in 2004 of Inhalation Sciences AB (ISAB), Ziccum's original parent company, for whom he remains CSO.

Gerde is a recognized authority in inhalation research and development and inhalation toxicology. His previous roles include research scientist at the Swedish National Institute of Occupational Health and postdoctoral fellow and visiting scientist at the influential Lovelace Respiratory Research Institute in New Mexico, USA. He is a Key opinion leader within inhalation and is the inventor of ISAB's precision aerosol generation system PreciseInhale, which is installed at development and research facilities in Europe, the US and Asia.

Ziccum's pharmaceutical drying system LaminarPace was first developed by Assoc. Prof. Gerde to generate dry powder micronized particles suitable for aerosolization in PreciseInhale. As LaminarPace's unique ability to deliver dried, thermostable particles of even delicate biologics and biopharmaceuticals emerged, Inhalation Sciences decided to spin the technology out, in 2017, into the subsidiary Ziccum AB.

Today's LaminarPace is the fourth generation, with extensive development work completed towards its scale out as a unique unit of pharmaceutical production, including advanced 3D modeling being carried out in partnership with the ICP Institute of Computational Physics at the Zurich University of Applied Sciences's School of Engineering (ZHAW).

Assoc. Prof. Per Gerde: "I am pleased and excited to be involved again with LaminarPace. The technological development and progress Ziccum has made in advancing the system from its early iterations is impressive and exciting. I am very happy to see the extent of that progress, and to be able to return to and contribute once more towards the system's development, as a Board member. I look forward to working with the Ziccum team".

Ziccum Chairman of the Board Fredrik Sjövall: "Per brings decades of industry expertise and wisdom to our Board of Directors, as well as his significant background knowledge of LaminarPace. His expertise and commitment to developing successful new systems that add new value to their sector is powerful and proven. We are delighted to welcome him to the Board".

**For more information about Ziccum, please contact:**

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Ziccum's Certified Adviser is Erik Penser Bank AB  
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## About Ziccum

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Ziccum is developing LaminarPace™, a unique ambient drying method for biopharmaceuticals and vaccines based on mass transfer, not heat transfer. The technology is offered by licensing to vaccine and biologics developers and manufacturers in the global pharmaceutical industry. By reducing drying stress to the active ingredient, LaminarPace™ uniquely enables particle-engineered, thermostable dry powder biopharmaceuticals which can be easily handled and transported and are highly suitable for novel administration routes. The technology has been successfully applied to mRNA, peptides, proteins, antibodies, lipids and enzymes as well as excipients and adjuvants, and is well suited for industrial application. Ziccum is listed on the Nasdaq First North Growth Market.

## Image Attachments

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## Attachments

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