Press release PExA AB
Gothenburg November 12, 2026

Vaccine Research Using PExA Technology Featured on the Cover of a Lancet Journal

The study recently announced by PExA AB (publ), in which researchers demonstrated that virus-specific antibodies from the lungs' small airways can be analyzed non-invasively using the company's technology, is now also featured on the cover of the November issue of eBioMedicine. The journal is internationally recognized as a leading publication in biomedicine, is part of The Lancet Discovery Science, and has a high impact factor of 11.2. The cover feature brings additional international visibility and attention to both the research findings and PExA's technology.

The cover features an artistic illustration of the immune system in the lungs and how antibodies from the lower airways can be studied by analyzing particles in exhaled breath. The study is also highlighted by title on the cover, bringing further international visibility to the research findings.

PExA previously reported on the study, in which researchers at Karolinska Institutet, Danderyd Hospital and Uppsala University, led by Professor Charlotte Thålin and Associate Professor Mikael Åberg, demonstrated that virus-specific antibodies against influenza, SARS-CoV-2 and RSV can be measured in samples collected non-invasively using PExA technology. The findings open new opportunities in vaccine research, immunology and drug development.

The study also demonstrates differences in antibody profiles between the upper and lower airways. This means that analyses of blood or nasal samples alone do not provide a complete picture of immune responses in the lungs' small airways. For vaccine research, the ability to investigate immune responses directly where protection is needed could therefore be particularly valuable. PExA's non-invasive technology also makes repeated sampling possible, enabling researchers to study how local antibody responses change over time – something that is practically impossible to achieve in larger research cohorts using repeated bronchoscopy.

When Charlotte Thålin was named a Wallenberg Academy Fellow in 2025, she described the possibility of using PExA to study antibodies in the lower airways as a "game-changer" for the development of vaccines and antibody-based treatments. The published study now provides scientific support for this potential.

- *It is extremely rewarding to see this research receive such attention in a prestigious international scientific journal. Having the study additionally featured on the cover is particularly exciting and helps generate further international attention for both the research findings and PExA's technology. The illustration beautifully captures what makes PExA so interesting – the ability to study the immune system in the lungs' small airways without invasive procedures. Charlotte Thålin, Mikael Åberg and their colleagues have done impressive work that opens new opportunities for PExA in vaccine development and pharmaceutical research,* says Tomas Gustafsson, CEO of PExA.

The cover illustration was created by Lovisa Thålin and is featured in the November issue of eBioMedicine, Volume 133.

Links:

🔗 eBioMedicine – part of The Lancet Discovery Science

🔗 Cover illustration by Lovisa Thålin, eBioMedicine, November 2026, Volume 133

🔗 PExA's press release from November 5: *New Karolinska Institutet Study in Lancet Journal Opens New Opportunities for PExA in Vaccine Development*

Scientific Publication

Aguilera K. et al. *Non-invasive quantification of lower airway antigen-specific antibodies using exhaled breath particles – an observational proof-of-concept study*. eBioMedicine, 2026;133:106538.

https://doi.org/10.1016/j.ebiom.2026.106538

For further information, please contact:

Tomas Gustafsson, CEO, info@pexa.se

About PExA AB:

PExA AB *(corporate registration number 556956-9246) has developed PExA 2.1, a patented research instrument enabling non-invasive small airway liquid biopsy. The technology allows researchers to collect biological samples from the small airways of the lungs, providing molecular insights directly from the site of action and supporting biomarker discovery, pharmacokinetic and pharmacodynamic (PK/PD) studies, immunology research and future diagnostic applications.*

PExA's technology is used by leading research groups internationally and has contributed to more than 60 peer-reviewed scientific publications. Recent research comparing PExA with bronchoalveolar lavage (BAL) has demonstrated substantial overlap in detected proteins, further strengthening the scientific evidence supporting the technology. PExA has also established Small Airway Atlas™, a growing molecular database designed to support research and biomarker discovery.

PExA aims to expand the use of its technology in pharmaceutical development and research into respiratory diseases, including lung cancer, chronic obstructive pulmonary disease (COPD) and idiopathic pulmonary fibrosis (IPF), while pursuing long-term opportunities in clinical diagnostics.

PExA's B share is listed on Spotlight Stock Market.

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