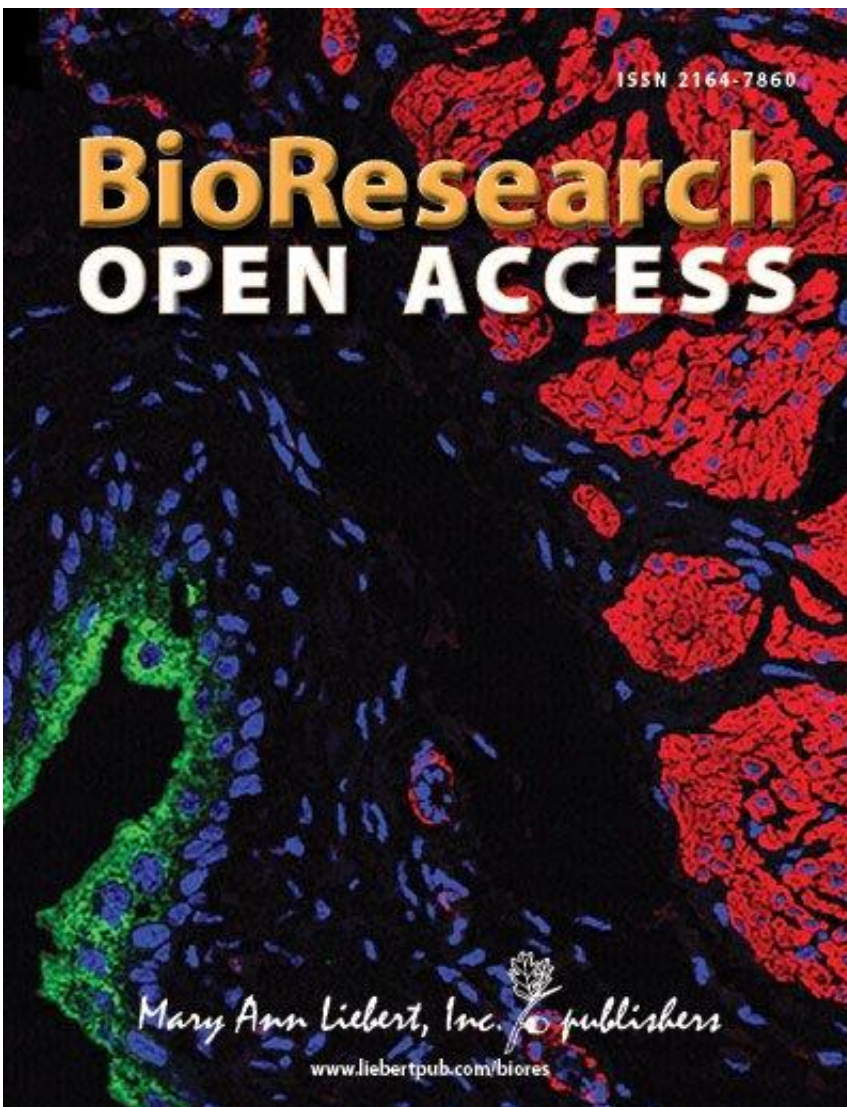


Spray application of respiratory cells holds promise for tissue engineering

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Credit: Mary Ann Liebert, Inc., publishers

A new study showing the ability to apply a thin coating of viable respiratory epithelial cells to tissue engineered constructs using a commercially available spray device is especially promising for therapeutic approaches in development to repair or replace challenging structures such as trachea or bronchi. The effects of factors such as air pressure and nozzle diameter on cell survival and the ability of the respiratory cells to differentiate and proliferate are described in an article in *BioResearch Open Access*.

In "[Spraying Respiratory Epithelial Cells to Coat Tissue-Engineered Constructs](#)," Anja Lena Thiebes, Stefanie Albers, Dr. Med. Stefan Jockenhoevel, and Christian Cornelissen, RWTH Aachen University, and Christian Klopsch, University of Rostock, Germany, compared the results for spray application of vascular [smooth muscle cells](#) or respiratory [epithelial cells](#), with and without fibrin gel. Fibrin acts like a glue to hold cells and tissues together, helping to keep the cells in place until it slowly degrades over a few days, allowing the [cells](#) to differentiate.

"The work presented here is of significant importance to regenerative medicine therapeutics, providing a highly promising approach to coating tissue engineered constructs," says *BioResearch Open Access* Editor Jane Taylor, PhD, MRC Centre for Regenerative Medicine, University of Edinburgh, Scotland.

More information: The article is available on the *BioResearch Open Access* website.

Provided by Mary Ann Liebert, Inc

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