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# Bioengineering approaches for lung repair

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*Introduction*, prof. **Silvia Farè** (Politecnico di Milano, DCMIC)

**31 May 2023 | 11:15**  
**live | online**

Room Pedefferri, Bulding 6  
Piazza Leonardo da Vinci, 32 Milano

[Link](#)

The talk is focused on lung injury and repair, describing cell replacement therapy and focusing on the optimal strategies to selectively remove defective lung epithelial cells and support the proliferation and differentiation of lung progenitors towards healthy epithelium and ultimately lung repair. Congenital surfactant deficiencies and pulmonary fibrosis will be considered as examples where bioengineering approaches can help medical needs.

#### *Short biography*

*Dr. Nicolino Valerio Dorrello is Professor in the Division of Pediatric Critical Care Medicine, Department of Pediatrics, Columbia University Vagelos College of Physicians and Surgeons since 2015. He obtained his MD from University of Naples (Italy) in 2000 and his PhD in Molecular Oncology at New York University in 2004, focusing on the role of ubiquitin mediated proteolysis in cell cycle regulation. He then completed a residency in Pediatrics at the University of Padua (Italy) in 2010 and a subsequent pediatric residency at Columbia University before staying for his Fellowship in Pediatric Critical Care Medicine and then as faculty. In his clinical duties in the pediatric critical care unit, one of the most devastating and common injuries he comes across, unfortunately, is severe, progressive lung injury. He has recently succeeded in developing an airway-specific method to efficiently remove only the lung epithelium (de-epithelialization) while preserving lung vasculature and architecture in an ex vivo rodent model. Dr. Dorrello has published in international peer-reviewed journals of highest reputation, such as Science, Nature, Molecular Cell, PNAS, and Science Advances.*

More info: [www.cmic.polimi.it](http://www.cmic.polimi.it)