



Showcasing research from Professor Shuichi Takayama's laboratory, Wallace H. Coulter, Department of Biomedical Engineering at Emory University and Georgia Institute of Technology, Atlanta, United States.

Liquid plug propagation in computer-controlled microfluidic airway-on-a-chip with semi-circular microchannels

When the lower airways become flooded during infection, injury, or mechanical ventilation, the airway-lining liquid can form obstructions called liquid plugs. These get pushed along the airways during inhalation, injuring airway epithelial cells. In this issue, Viola et al. model liquid plug formation, propagation, and rupture in a microfluidic human lung-on-a-chip. With this device, new studies of liquid plugs in pulmonary pathophysiology are now in reach. Ultimately, the insights enabled by this work could inform the clinical management of fluid-mediated lung injury. Artwork by Nancy Viola. Copyright holder: Hannah Viola.

As featured in:



See Shuichi Takayama *et al.*, *Lab Chip*, 2024, **24**, 197.