



Centre for
Heart Lung Innovation
UBC and St. Paul's Hospital

Centre for Heart Lung Innovation Research in Progress (R.I.P.)



DNA methylation provides insights on the Chronic Obstructive Pulmonary Disease Lung

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Monday Oct 19th 2020
9:00 a.m. – 10:00 a.m.

Zoom Video Conference
(Meeting ID: 627 6631 8788; Passcode: 719155)

“Emphysema is a major pathologic characteristic of chronic obstructive pulmonary disease (COPD). Epigenetic regulation in the lung (i.e. DNA methylation) may help to identify genes that contribute to the pathophysiology of COPD. We aimed to investigate the lung epigenetic profile that is associated with centrilobular emphysema (CLE) and pan-lobular emphysema (PLE). We found that emphysema drastically alters the lung DNA methylation profile of CLE and PLE. This research suggests that methylation changes can affect the expression of genes that may significantly contribute to COPD pathophysiology. Also, we have found biologic pathways enriched by differentially methylated genes, these pathways could be altered in COPD patients. Lastly, we identified novel genes, such as PM20D1 whose biology should be further explored in relation to COPD pathophysiology. Whether differential methylation associated with CLE and PLE can be targeted therapeutically in the future to mitigate COPD remains an important question to answer.”

This event is a Self-Approved Group Learning Activity as defined by the Maintenance Certification Program of the Royal College of Physicians and Surgeons of Canada



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