

## **About the numerical histological imaging for COPD preclinical study: a huge help in terms of accuracy, reliability and speed- Yvon Jule - Biocellvia**

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### **Abstract**

The structural changes in lung tissue induced during COPD are often assessed by scoring or semi-automatic measures that are closely dependent on the experimenter. This inevitably generates large intra- and inter-variability that impact negatively on the accuracy and reliability of results. To overcome this dependency, we have developed within Biocellvia's society fully automated digital analysis assays specifically dedicated to the evaluation of emphysema, asthma and small airway remodeling (SAR). Biocellvia's assays, based on a multiparametric assessment of pulmonary structural changes, represent a significant advance in the evaluation of COPD in terms of accuracy, reliability, reproducibility and speed. They are an invaluable aid both for basic research and for the development of candidate molecules by pharma companies. Recent Publications 1. Michaudel C, Fauconnier L, JulY, et al. (2018) Functional and morphological differences of the lung upon acute and chronic ozone exposure in mice. Scientific Reports 8(1):10611. 2. Jean-Claude Gilhodes, Yvon Jul, et al. (2017) Quantification of pulmonary fibrosis in a bleomycin mouse model using automated histological image analysis