



CONTEXT DEPENDENT FIBROBLAST FUNCTION IN LUNG DEVELOPMENT AND REGENERATION

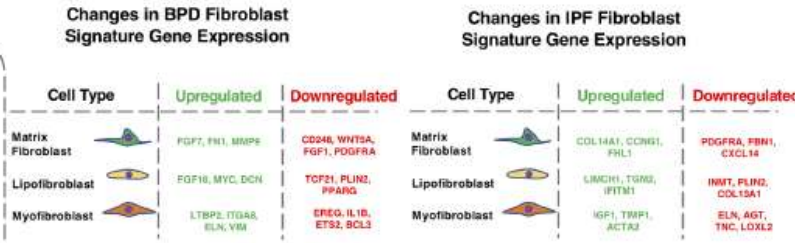
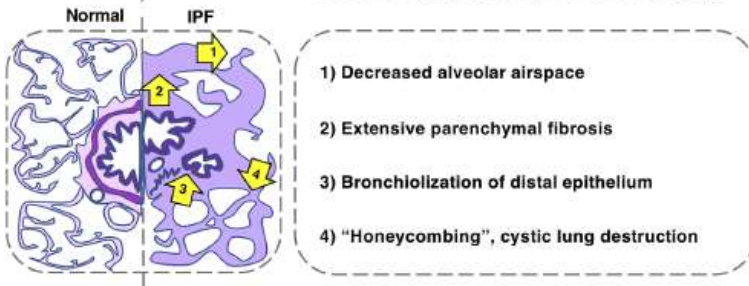
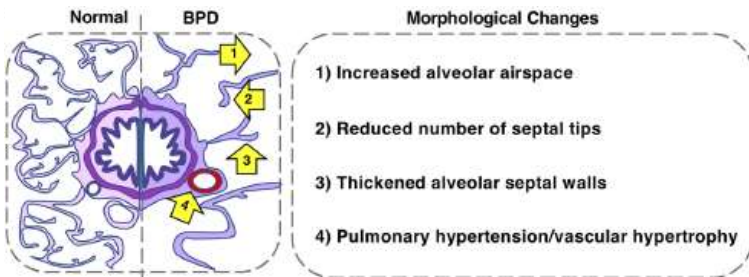
GUEST LECTURE by

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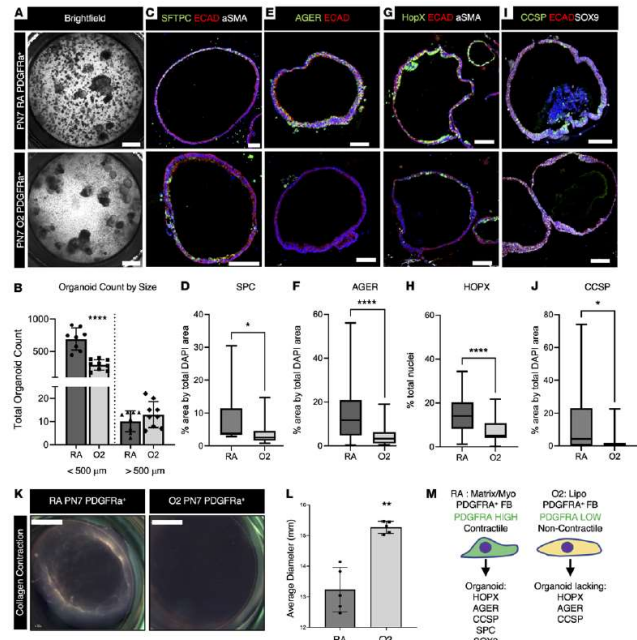
MC1.G.01.005 (Seminar room 01 - Applied Biomedicine; MED Campus, tract G, 1st floor)



Context-dependent interstitial fibroblast cell stage in idiopathic pulmonary fibrosis (IPF) and bronchopulmonary dysplasia (BPD). Ushakumary *et al.* (2021) *Stem Cells* 10(7):1021-32

Stromal Cells in the Lung Parenchyma

#	Cell Symbol	Mesenchymal Subtype	Lineage-Tag
1		Alveolar Niche Cell	AXIN2 (Zepp <i>et al.</i> , 2017) LGR5 (Lee <i>et al.</i> , 2017) PDGFRA (Li <i>et al.</i> , 2018 & Endale 2017)
2		Lipofibroblast	THY1 (Varisco <i>et al.</i> , 2012) FGF10 (El Agha <i>et al.</i> , 2014) TCF21 (Park <i>et al.</i> , 2019) PDGFRA (Ntokou <i>et al.</i> , 2015 & Green 2016) FGF18 (Hagan <i>et al.</i> , 2019b)
3		Matrix Fibroblast	COL1A1, COL1A1 (Die <i>et al.</i> , 2018) PDGFRA (Green <i>et al.</i> , 2016)
4		Myofibroblast	TRX4 (Zhang <i>et al.</i> , 2013) GLI1 (Li <i>et al.</i> , 2015) PDGFRA (Bostrom <i>et al.</i> , 1996 & McGowan 2008, Perl 2009, Chen 2012) FGF18 (Hagan <i>et al.</i> , 2019b)
5		Smooth Muscle Cell	LGR6 (Lee <i>et al.</i> , 2017) PDGFRA (Grell <i>et al.</i> , 2012)
6		Resident Stem Cell	SCA1 (McQuiter <i>et al.</i> , 2009) GLI1 (Kramann <i>et al.</i> , 2015) ANG2 (Gaskill <i>et al.</i> , 2017)
7		Pericyte	PDGFRA (Grell <i>et al.</i> , 2012) CSPG4 (Rock <i>et al.</i> , 2011) FOXD1 (Hung <i>et al.</i> , 2013)
8		Mesothelial Cell	WT1 (Que <i>et al.</i> , 2008)



Location, Location, Location. Representational drawing of an adult donor lung histology section. Riccetti *et al.* (2020) *Matrix Biol* 91-92:51-74

PDGFRA⁺ fibroblasts exposed to hyperoxia fail to support epithelial differentiation in organoid culture. Riccetti *et al.* (2022) *JCI Insight* 7(5):e152404