

Supplementary table 1: Enriched pathway components of bleomycine induced pulmonary fibrosis in mouse. Significantly different metabolites (Student's t-test (unpaired, two-tailed) p-value ≤ 0.05 , intensity fold-change ≥ 1.5) of corresponding pathways are listed.

Fibrosis vs. Control	
Reduced in fibrosis	
Pathways	Metabolites
Glycolysis / Gluconeogenesis	Phosphoenolpyruvate
	3-Phospho-D-glycerate
	3-Phospho-D-glyceroyl phosphate
	2-Phospho-D-glycerate
	2,3-Bisphospho-D-glycerate
Enhanced in fibrosis	
Pathways	Metabolites
Amino sugar and nucleotide sugar metabolism	UDP-N-acetyl-alpha-D-glucosamine
	D-Glucose 1-phosphate
	UDP-glucuronate
	UDP-N-acetyl-D-galactosamine
	D-Mannose 6-phosphate
	N-Acetyl-D-glucosamine 6-phosphate
	UDP-D-galacturonate
	D-Mannose 1-phosphate
	UDP-N-acetyl-D-mannosamine
	UDP-L-iduronate
	beta-L-Arabinose 1-phosphate
	N-Acetyl-D-mannosamine 6-phosphate
	N-Acetyl-alpha-D-glucosamine 1-phosphate
Pentose and glucuronate interconversions	D-Glucose 1-phosphate
	UDP-glucuronate
	D-Ribulose 5-phosphate
	D-Xylulose 5-phosphate
	D-Mannonate
	L-Gulonate
	D-Altronate
	L-Ribulose 5-phosphate
	5-Dehydro-4-deoxy-D-glucuronate
	(4S)-4,6-Dihydroxy-2,5-dioxohexanoate
	L-Xylulose 1-phosphate
L-Galactonate	
Ascorbate and aldarate metabolism	Ascorbate
	UDP-glucuronate
	D-Xylulose 5-phosphate
	L-Gulonate
	L-Ribulose 5-phosphate
	D-Glucuronolactone
	L-xylulose-Hexulonolactone
	beta-L-Galactose 1-phosphate
	L-Galactonate
L-Ascorbate 6-phosphate	
Pentose phosphate pathway	D-Ribose 5-phosphate
	D-Ribulose 5-phosphate
	D-Xylulose 5-phosphate
	D-Gluconic acid
	alpha-D-Ribose 1-phosphate
	beta-D-Glucose 6-phosphate

	D-arabino-Hex-3-ulose 6-phosphate
Fructose and mannose metabolism	D-Mannose 6-phosphate
	D-Mannose 1-phosphate
	D-Fructose 1-phosphate
	Sorbose 1-phosphate
	beta-D-Fructose 2-phosphate
Pirfenidone treatment vs. non-treated fibrosis	
Reduced after pirfenidone treatment	
Pathways	Metabolites
Ascorbate and aldarate metabolism	Ascorbate
	Monodehydroascorbate
	D-Glucuronolactone
	L-xylo-Hexulonolactone

Supplementary table 2: Enriched pathway components of human IPF samples. Significantly different metabolites (Student's t-test (unpaired, two-tailed) p-value ≤ 0.05 , intensity fold-change ≥ 1.5) of corresponding pathways are listed.

Human IPF vs. normal	
Reduced in human IPF	
Pathways	Metabolites
Linoleic acid metabolism	Phosphatidylcholine
	13(S)-HODE
	9(S)-HODE
	9(10)-EpOME
	12(13)-EpOME
Inositol phosphate metabolism	1D-myo-Inositol 1,4-bisphosphate
	1D-myo-Inositol 1,3,4-trisphosphate
	D-myo-Inositol 1,4,5-trisphosphate
	D-myo-Inositol 1,3-bisphosphate
	D-myo-Inositol 3,4-bisphosphate
Starch and sucrose metabolism	UDP-glucuronate
	UDP-D-galacturonate
	alpha-D-Glucose 1,6-bisphosphate
Enhanced in human IPF	
Pathways	Metabolites
Pentose and glucuronate interconversions	D-Glucuronate
	D-Galacturonate
	D-Lyxose
	D-Mannonate
	D-Tagaturonate
	3-Dehydro-L-gulonate
	L-Gulonate
	D-Altronate
	D-Fructuronate
	L-Galactonate
Ascorbate and aldarate metabolism	D-Glucuronate
	D-Galacturonate
	3-Dehydro-L-gulonate
	L-Gulonate
	Dehydroascorbate
	L-Galactonate
Vitamin B6 metabolism	4-Pyridoxate
	2-(Hydroxymethyl)-3-(acetamidomethylene)succinate
	3-Hydroxy-4-hydroxymethyl-2-methylpyridine-5-carboxylate
	3-Amino-2-oxopropyl phosphate
Fructose and mannose metabolism	L-Fuculose 1-phosphate
	L-Rhamnulose 1-phosphate
	L-Fucose 1-phosphate
Pirfenidone treatment vs. non-treated IPF	
Enhanced after pirfenidone treatment	
Pathways	Metabolites
Glycolysis / Gluconeogenesis	3-Phospho-D-glycerate
	2-Phospho-D-glycerate