

Table 2

Biological processes separating IBF and GBF treated patient groups as derived on the level of PBMC differential gene expression. Categories are ranked by the p-value indicating the relevance of a particular process.

DEGs up-regulated by IBF treatment

Biological process	Gene-Symbols	p-value
Immunity and defence	CIITA, UNQ3033, SCGB1C1, CLEC1B, CTSW, CLEC4E, TNFRSF7, CLEC10A	<0.001
Natural killer cell mediated immunity	UNQ3033, CLEC1B, CTSW	<0.001
T-cell mediated immunity	CIITA, CTSW, TNFRSF7	0.001
Cell communication	UNQ3033, SCGB1C1, CLEC1B, STAT4, CLEC10A	0.008
Other neuronal activity	SP110, RASGRP2	0.009
Macrophage-mediated immunity	CLEC4E, CLEC10A	0.010
Ligand-mediated signaling	STAT4, UNQ3033, SCGB1C1	0.010
Other immune and defense	SCGB1C1, CLEC4E	0.012
Glucose hemeostasis	STAT4	0.021
Signal transduction	LST1, STAT4, UNQ3033, SCGB1C1, RASGRP2, CLEC1B, TNFRSF7, CLEC10A	0.022
MHC-I-mediated immunity	CTSW	0.023
Cytokine und chemokine mediated signaling pathways	STAT4, TNFRSF7	0.029
MHC-II-mediated immunity	CIITA	0.036
Glycolysis	HK3	0.048

DEGs up-regulated by GBF treatment

Biological process	Gene-Symbols	p-value
Ectoderm development	CELSR2, FOXA2, HLF, KRT80, TNFRSF21, COBLL1, NTN4, CRABP1, NLGN2, FGFR3, THSD3, FRAS1, DOC1, CELSR2, MGP, RND3, CGA, GNG4, RAB23, FOXA2, AXL, CAP2, CDH13, INPP5F, TACSTD2, TNFRST21, MFAP4, DIRAS1, CRABP1, NLGN2, SFRP2, THSD3, GPR161, FGFR3, NTN4, CELSR2, FOXA2, HLF, TNFRSF21, COBLL1, NTN4, NLGN2, FGFR3, THSD3	<0.001
Signal transduction	FRAS1, CELSR2, MGP, CGA, FOXA2, CAP2, CDH13, MFAP4, NTN4, CRABP1, NLGN2, SFRP2, THSD3, DOC1, AXL, CDH13, MAGEA12, NTN4, MLF1, FGFR3, THSD3	<0.001
Neurogenesis	FRAS1, CELSR2, MGP, CGA, FOXA2, CAP2, CDH13, MFAP4, NTN4, CRABP1, NLGN2, SFRP2, THSD3, DOC1, AXL, CDH13, MAGEA12, NTN4, MLF1, FGFR3, THSD3	<0.001
Cell communication	DOC1, AXL, CDH13, MAGEA12, NTN4, MLF1, FGFR3, THSD3, CELSR2, MGP, FOXA2, HLF, KRT80, TTK, MAGEA12, EFHD1, TNFRSF21, COBLL1, NTN4, CRABP1,	<0.001
Oncogenesis	DOC1, CELSR2, MGP, FOXA2, HLF, KRT80, TTK, MAGEA12, EFHD1, TNFRSF21, COBLL1, NTN4, CRABP1,	<0.001
Developmental processes	TNFRSF21, COBLL1, NTN4, CRABP1,	0.001

	NLGN2, FGFR3, THSD3	
Other oncogenesis	MAGEA12, FGFR3, THSD3	0.002
Cell proliferation and differentiation	DOC1, FOXA2, AXL, TACSTD2, C9orf58, UHRF1, NTN4, MLF1, GINS2, FGFR3	0.002
Cell structure	DLG5, CELSR2, COL7A1, FOXA2, KRT80, PHLDB1, TJP1	0.006
Cell structure and motility	DLG5, CELSR2, COL7A1, FOXA2, KRT80, PHLDB1, TJP1, RND3, CAP2	0.011
DNA replication	DOC1, CDC2, GINS2	0.014
Homeostasis	CGA, HEPH, FSTL1	0.025
Stress response	MOCOS, C9orf58, GPX3	0.026
Other cell cycle process	UHRF1	0.028
DNA metabolism	DOC1, CDC2, DNTT, GINS2	0.028
Other receptor mediated signaling pathway	FOXA2, TACSTD2, TNFRSF21	0.030
Proteolysis	DOC1, DGC, C1R, MMP15, CAP2, SERPINA5, TIMP3	0.033
Cell surface receptor mediated signal transduction	CELSR2, RND3, GNG4, FOXA2, AXL, TACSTD2, TNFRSF21, FGFR3, THSD3, GPR161	0.035
Other steroid metabolism	SC5DL	0.041
Cell cycle	DOC1, CDC2, FOXA2, TTK, C9orf58, UHRF1, GINS2	0.042
Sex determination	TTK	0.044
Cell cycle control	DOC1, CDC2, FOXA2, C9orf58	0.045
Neurotransmitter release	STXBP1, EHD2	0.046
Cell adhesion	CELSR2, COL7A1, CDH13, MFAP4, NLGN2	0.049