

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Details of public datasets used in this study.**

No	Dataset	Source	Sample type	Organism	Number and description of samples in this study	Sample size	PubMed ID
1	GSE87466	Li K, et al.	Mucosal biopsy samples	Homo sapiens	21 Healthy controls, 87 UC patients	108	PMID:29401083
2	GSE47908	Bjerrum JT et al.	Colonic biopsies	Homo sapiens	19 Healthy controls, 41 UC patients	60	PMID: 25358065
3	GSE59071	Arijs I et al.	Mucosal biopsies	Homo sapiens	16 Healthy controls, 92 UC patients	108	PMID: 26313692
4	GSE75214	Arijs I et al.	Mucosal biopsies	Homo sapiens	19 Healthy controls, 100 UC patients	119	PMID: 28885228
5	GSE92415	Li Ket al.	Mucosal biopsy samples	Homo sapiens	20 Healthy controls, 54 UC patients	74	PMID: 23735746
6	GSE14580	Arijs I et al.	Mucosal biopsy samples	Homo sapiens	6 Healthy controls, 24 UC patients	30	PMID: 19700435
7	GSE53306	Zhao X et al.	Mucosal biopsies	Homo sapiens	16 Healthy controls, 12 Inactive UC, 12 Active UC	40	PMID: 26034135
8	GSE13367	Bjerrum JT et al.	mucosal colonic biopsies	Homo sapiens	16 Infiltrative UC, 18 Non-infiltrative UC	34	PMID: 19834973
9	GSE16879	Arijs I et al.	Mucosal biopsies	Homo sapiens	8 Infliximab Responsive UC, 16 Infliximab Irrespective UC	24	PMID: 19956723
10	GSE6731	Wu F et al.	Mucosal biopsies	Homo sapiens	5 Infiltrative UC, 4 Non-infiltrative UC	9	PMID: 17262512
<b>Total sample size</b>						606	

**Supplementary Table 2. A total of 9 UC occurrence relative genes are retrieved from the literature.**

Gene	PMID	Author	ENSEMBL
<b>ZC3H12A</b>	33359885	Kyle Gettler	ENSG00000163874
<b>STMN3</b>	21297633	Carl A Anderson	ENSG00000197457
<b>IL7R</b>	21297633	Carl A Anderson	ENSG00000168685
<b>RTEL1</b>	21297633	Carl A Anderson	ENSG00000258366
<b>NOD2</b>	26490195	Isabelle Cleynen	ENSG00000167207
<b>JAK2</b>	31853061	Nobuyuki Kakiuchi	ENSG00000096968
<b>SLC22A5</b>	16361305	S Waller	ENSG000000197375
<b>CFB</b>	24837172	Garima Juyal	ENSG000000243649
<b>TLR2</b>	16480927	Elisabet Cantó	ENSG000000137462