

Supplemental Table 2
Muhtadi et al.

A: Raw data

Sample #	Donor	Material	Incubation Time	Dose (Gy)	Most promising candidates				Genes in biosimetry																Target Genes															
					18S rRNA	PUM1	PGK1	MRPL19	HPRT1	ITFG1	MRP55	DPM1	CDKN1A	PES1	GADD45A	ABL1	POP4	PSMC4	ACTB	ELF1	TFRC	RPL37A	MT-ATP6	GUSB	CDKN1B	GAPDH	HMBS	IPO8	TBP	YWHAZ	EIF2B1	RPLP0	RPS17	CASC3	B2M	POLR2A	PPIA	RPL30	UBC	
1	1	PAKgene	0h	0 Gy	21.3	22.8	22.9	25.7	27.5	25.8	25.6	25.7	26.9	25.0	29.3	26.5	25.5	25.2	21.8	22.4	26.0	20.3	22.6	25.6	22.7	23.9	28.2	27.7	28.4	24.7	26.2	20.5	23.3	23.7	17.3	24.4	21.2	26.6	24.1	
2	1	PAKgene	0h	0 Gy	21.4	23.4	22.4	26.9	27.5	26.5	26.5	27.5	26.3	25.7	29.2	27.1	26.4	25.4	21.9	22.8	26.9	21.4	21.4	25.8	23.6	23.5	29.2	27.4	29.1	25.7	26.2	21.5	23.5	22.2	18.7	23.9	22.7	26.9	21.0	
3	1	PAKgene	0h	0 Gy	21.1	23.5	22.4	26.4	26.6	26.3	26.3	26.4	26.7	25.5	30.0	27.0	25.9	25.4	21.9	22.9	26.6	20.6	21.7	25.4	22.7	23.4	27.5	26.0	28.7	25.3	27.9	21.6	21.6	22.8	18.4	25.5	21.6	23.1	21.4	
4	1	EDTA -> PAXgene	0h	0 Gy	21.2	24.1	22.8	26.8	28.2	26.7	26.8	27.2	26.4	26.1	29.4	27.2	26.2	25.5	23.5	23.1	26.1	21.6	24.2	26.4	23.2	25.1	28.1	29.1	29.3	25.7	26.7	21.8	25.6	23.9	18.3	24.8	22.7	30.1	22.2	
5	1	EDTA -> PAXgene	6h	0 Gy	21.3	23.4	22.3	26.9	27.8	27.2	26.8	27.6	25.7	26.5	29.1	27.4	27.2	25.6	22.6	22.2	26.0	21.0	21.6	26.6	23.4	23.1	28.8	27.0	28.9	25.6	27.9	21.6	22.4	22.7	18.5	24.7	22.8	27.3	21.7	
6	1	EDTA -> PAXgene	6h	0.5 Gy	21.3	23.9	22.5	27.2	27.5	27.4	27.2	27.6	24.9	27.0	29.3	28.0	28.3	25.9	23.0	22.5	26.5	21.2	21.7	25.7	22.3	23.1	29.0	27.1	28.7	25.7	29.5	22.6	22.9	22.9	19.0	25.4	22.8	24.2	21.9	
7	1	EDTA -> PAXgene	6h	4 Gy	21.8	24.0	22.4	27.6	28.6	27.7	27.5	27.7	24.2	27.1	28.5	28.2	27.6	25.8	24.2	22.7	25.6	21.7	24.9	27.4	22.8	23.8	29.4	30.0	29.7	26.1	28.8	21.7	26.3	23.5	18.6	24.6	23.2	30.1	22.4	
8	1	EDTA -> MF	0h	0 Gy	22.8	23.5	22.8	26.5	27.7	26.8	26.4	26.4	26.7	25.2	28.5	27.0	26.3	25.4	22.3	22.9	26.1	22.2	23.4	26.3	24.2	28.4	26.1	28.4	25.3	27.8	21.8	21.8	23.0	18.7	23.9	21.8	29.5	22.0		
9	1	EDTA -> MF	6h	0 Gy	22.6	23.2	22.4	26.6	27.1	27.1	26.5	26.7	25.9	26.0	29.2	27.0	26.9	25.5	22.9	22.0	26.2	21.9	23.0	25.4	23.0	23.5	28.9	26.6	28.4	25.2	29.2	23.0	21.5	22.8	19.3	26.0	22.1	28.6	21.8	
10	1	EDTA -> MF	6h	0.5 Gy	22.9	23.9	23.2	27.4	28.3	27.8	27.1	27.3	24.8	26.7	28.5	27.6	27.6	26.2	25.6	22.8	26.8	26.8	26.6	23.1	24.3	29.7	30.3	30.3	25.8	28.5	21.9	25.3	24.6	19.2	24.9	23.2	35.6	23.5		
11	1	EDTA -> MF	6h	4 Gy	22.3	24.1	23.3	27.5	28.9	28.6	27.5	27.9	23.8	26.6	27.7	27.7	27.7	26.1	24.9	23.3	27.3	22.9	28.3	27.1	24.0	25.2	29.9	27.9	30.8	26.8	28.5	22.3	23.2	24.1	20.7	24.7	23.2	29.8	22.5	
12	2	EDTA -> PAXgene	0h	0 Gy	21.7	23.8	22.4	26.9	27.4	26.6	26.8	27.1	26.6	25.9	29.7	27.2	26.7	25.6	21.3	23.0	27.1	22.1	22.1	25.6	24.1	23.4	28.5	26.6	29.4	26.5	28.8	22.4	22.8	23.0	18.8	25.0	22.5	25.7	21.2	
13	2	EDTA -> PAXgene	6h	0 Gy	21.0	23.4	22.6	27.6	28.0	27.3	27.2	27.7	25.6	26.7	28.7	27.5	27.2	25.8	23.3	22.0	25.6	21.6	22.1	25.9	21.8	23.1	29.8	27.2	30.2	25.5	26.9	21.5	22.6	22.8	18.3	24.4	23.0	24.8	22.0	
14	2	EDTA -> PAXgene	6h	0.5 Gy	21.2	23.9	22.3	28.0	27.7	27.7	27.7	28.1	24.2	26.8	28.3	27.7	27.8	26.2	23.8	22.3	25.8	21.7	21.9	26.3	22.2	23.4	30.4	27.5	29.7	26.0	27.6	21.8	23.1	22.7	18.7	24.4	23.5	24.6	21.4	
15	2	EDTA -> PAXgene	6h	4 Gy	20.3	23.5	21.7	27.3	27.5	27.4	27.1	27.4	23.0	26.0	27.1	27.7	27.4	25.6	22.8	22.3	25.2	21.2	21.5	26.1	21.8	22.8	30.0	27.2	29.1	25.8	26.9	21.1	22.6	22.5	18.1	23.6	23.0	24.6	20.8	
16	2	EDTA -> MF	0h	0 Gy	22.1	23.9	23.7	26.9	29.3	27.2	26.7	27.0	27.3	25.2	29.9	27.4	26.6	25.8	24.9	23.4	27.5	22.6	25.2	25.6	23.4	24.4	28.9	26.5	30.6	25.9	26.6	22.0	22.7	23.9	19.0	24.3	22.3	28.6	22.5	
17	2	EDTA -> MF	6h	0 Gy	23.5	24.4	24.0	28.0	29.1	28.8	28.1	28.5	26.5	26.8	29.6	28.2	28.5	26.9	26.1	23.4	27.5	23.5	26.6	27.2	23.3	25.6	31.0	28.2	31.5	26.8	27.9	22.9	23.5	24.7	20.2	25.6	23.7	29.6	22.5	
18	2	EDTA -> MF	6h	0.5 Gy	24.1	25.1	24.5	28.5	29.6	29.5	28.3	28.7	25.2	26.9	28.8	28.8	28.8	27.4	26.9	23.8	27.9	23.6	27.3	28.0	24.3	26.5	32.1	28.3	32.3	27.7	28.5	23.3	23.7	25.0	20.9	25.8	29.7	22.5		
19	2	EDTA -> MF	6h	4 Gy	23.7	24.6	23.6	28.0	29.8	29.3	28.3	28.5	24.0	26.4	27.8	28.2	28.6	26.5	25.8	24.4	28.9	23.2	26.6	27.3	23.5	25.6	30.5	28.0	31.3	27.3	28.1	23.9	23.7	24.5	20.4	24.3	23.1	29.0	22.1	
20	3	EDTA -> PAXgene	0h	0 Gy	20.4	23.5	22.4	26.5	26.8	26.5	26.7	26.7	26.7	25.8	29.3	26.9	25.8	25.4	21.5	22.9	26.0	21.3	21.5	25.3	22.7	23.4	27.7	26.0	28.9	25.3	25.8	21.9	22.2	22.7	17.9	24.1	21.8	24.4	21.5	
21	3	EDTA -> PAXgene	6h	0 Gy	20.6	23.2	21.9	27.1	27.0	26.9	26.9	27.2	26.0	26.7	29.0	27.5	26.9	25.5	22.5	21.9	25.4	20.7	21.3	25.3	22.1	22.8	28.4	26.6	28.8	25.2	26.7	21.4	21.5	22.7	18.1	24.4	22.3	22.9	21.4	
22	3	EDTA -> PAXgene	6h	0.5 Gy	20.4	23.2	21.9	26.8	29.8	27.0	26.9	27.2	24.9	26.2	28.1	27.4	26.7	25.7	22.5	22.5	25.1	20.6	21.5	25.2	21.9	22.8	28.4	26.8	29.2	25.1	26.5	21.3	21.9	22.6	17.9	23.9	22.1	22.8	21.2	
23	3	EDTA -> PAXgene	6h	4 Gy	20.6	23.5	22.3	27.3	27.1	27.6	27.3	27.6	24.3	26.6	28.2	27.6	27.1	25.7	23.2	22.5	25.3	20.9	21.9	25.8	22.6	23.5	28.7	27.1	29.2	25.8	26.9	22.0	22.2	22.9	18.3	23.9	22.6	23.7	21.5	
24	3	EDTA -> MF	0h	0 Gy	20.4	23.2	22.2	26.1	26.4	26.3	26.2	26.2	26.2	25.3	27.8	27.6	25.7	25.0	20.5	22.7	25.4	21.2	21.4	25.2	22.5	22.8	27.2	25.6	28.4	24.9	25.8	21.4	21.2	22.4	17.7	23.3	21.4	26.7	21.6	
25	3	EDTA -> MF	6h	0 Gy	20.8	23.0	22.1	26.4	27.6	26.8	26.5	26.8	25.8	25.5	28.0	26.9	26.6	25.5	22.9	22.0	25.1	21.3	23.6	25.2	22.0	23.3	28.0	26.4	29.3	25.1	26.9	21.5	21.6	22.7	18.1	23.8	21.9	27.3	21.5	
26	3	EDTA -> MF	6h	0.5 Gy	21.3	23.4	22.4	26.6	27.1	27.4	26.8	27.0	25.0	25.8	27.4	27.2	26.9	25.7	23.2	22.2	25.3	21.7	22.9	25.7	22.2	23.7	28.7	26.6	29.3	25.4	27.0	21.8	21.6	22.9	18.6	23.7	22.2	27.7	21.4	
27	3	EDTA -> MF	6h	4 Gy	21.0	23.2	22.3	27.1	26.9	27.4	26.8	27.0	24.1	25.6	27.2	27.2	27.0	25.2	23.3	22.3	25.3	21.7	22.9	25.5	22.4	23.6	28.6	26.7	29.4	25.3	26.8	21.8	21.8	22.7	18.6	23.3	22.3	27.5	21.4	
28	-	Humane RNA - Liver (Q50617)	-	-	21.2	24.9	23.5	25.0	21.6	26.7	25.6	26.7	26.1	25.5	26.7	27.4	25.6	24.9	24.8	26.0	24.6	22.8	20.4	24.4	25.1	23.5	27.2	26.6	30.1	28.3	26.8	22.2	22.5	26.3	19.7	25.9	21.9	27.7	22.6	
29	-	Humane RNA - Liver (AM7960)	-	-	20.6	24.6	22.9	24.8	26.6	26.5	25.4	26.6	25.9	25.1	26.3	27.0	25.6	24.7	25.2	25.6	24.1	22.5	19.7	23.8	24.6	24.1	26.9	26.4	29.6	27.9	26.7	21.8	22.2	25.8	19.5	25.7	21.5	27.1	21.7	
30	-	Humane RNA - Kidney (Q50616)	-	-	22.3	24.5	22.1	25.3	26.5	26.5	25.5	27.1	24.0	25.0	26.5	26.7	26.2	25.4	25.8	24.8	27.5	22																		

	Median	22.3	24.1	23.3	27.5	28.9	28.6	27.5	27.9	24.0	26.4	27.7	27.7	27.7	26.1	24.9	23.3	26.9	22.9	26.6	27.1	23.5	25.2	29.9	27.9	30.8	26.8	28.1	22.3	23.2	24.1	20.4	24.3	23.1	29.0	22.1
	SD	1.3	0.7	0.7	0.5	1.5	1.0	0.7	0.8	0.2	0.5	0.3	0.5	0.8	0.7	1.3	1.1	1.1	0.8	2.8	1.0	0.8	1.1	1.0	0.7	1.0	1.0	0.9	1.1	1.0	0.9	1.1	0.7	0.5	1.2	0.6
	SE	0.8	0.4	0.4	0.3	0.9	0.6	0.4	0.4	0.1	0.3	0.2	0.3	0.5	0.4	0.7	0.6	0.6	0.5	1.6	0.6	0.5	0.6	0.6	0.4	0.6	0.6	0.5	0.6	0.6	0.5	0.6	0.4	0.3	0.7	0.3
Liver	N	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Mean	20.9	24.8	23.2	24.9	24.1	26.6	25.5	26.6	26.0	25.3	26.5	27.2	25.6	24.8	25.0	25.8	24.3	22.6	20.1	24.1	24.9	23.8	27.0	26.5	29.9	28.0	26.8	22.0	22.4	26.0	20.0	25.8	21.7	27.4	22.1
Kidney	N	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Mean	22.3	24.5	22.1	25.3	25.5	26.5	25.5	27.1	24.0	25.0	26.5	26.7	26.2	25.4	25.8	24.8	27.5	22.3	18.5	25.6	23.7	23.3	27.8	26.2	31.5	26.8	27.0	21.7	22.2	24.3	20.6	25.2	21.0	28.4	20.2
Colon	N	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Mean	22.2	23.5	22.3	24.9	25.8	25.8	24.6	25.8	23.9	24.3	27.3	24.2	24.8	24.3	23.1	23.7	23.6	20.9	19.4	23.9	23.8	22.5	25.7	25.5	29.0	24.3	25.7	20.1	20.8	23.7	19.3	25.0	20.2	26.4	21.7
Testis	N	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Mean	20.5	23.0	22.6	24.3	23.3	24.5	24.6	24.7	24.1	22.9	26.5	24.2	23.6	23.4	22.3	24.0	24.5	19.9	19.4	23.0	22.5	22.2	25.8	24.5	26.6	25.5	24.4	20.2	20.6	22.1	18.0	22.4	20.1	25.8	20.1
U118, 6h, 0 Gy	N	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Mean	21.9	23.4	21.9	24.2	24.7	25.6	25.1	25.1	23.9	22.8	25.9	24.3	24.9	22.9	20.4	26.1	23.7	21.2	20.9	23.7	23.8	19.2	24.9	25.5	30.6	28.5	26.2	20.3	21.2	23.2	20.1	24.0	18.7	26.3	19.8
U118, 6h, 0.5 Gy	N	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Mean	21.1	23.5	22.1	24.5	25.1	25.8	25.2	25.3	24.1	23.3	26.1	24.4	24.4	23.2	21.7	26.1	23.8	21.6	20.8	24.1	24.1	19.6	25.3	25.9	30.3	28.7	25.7	20.7	21.5	23.4	20.4	19.1	27.0	20.0	
U118, 6h, 5 Gy	N	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Mean	21.0	23.5	22.1	24.8	24.5	20.4	20.7	23.5	23.8	24.1	25.2	25.7	25.9	26.2	19.3	23.7	25.2	24.6	25.9	25.7	25.2	20.7	23.1	24.6	24.5	18.9	22.9	26.3	21.6	20.4	21.3	30.4	24.2	20.0	29.0
A549, 6h, 0 Gy	N	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Mean	21.9	23.8	21.4	23.5	23.4	25.8	24.4	25.1	24.1	22.9	28.1	24.6	23.5	22.1	20.7	26.0	23.8	21.0	20.6	24.6	24.6	19.8	24.5	25.4	28.2	24.7	25.1	19.8	20.3	23.5	22.2	23.9	19.0	26.9	21.4
A549, 6h, 0.5 Gy	N	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Mean	22.5	23.8	21.2	23.7	23.7	23.2	24.6	25.0	23.6	23.2	28.4	24.5	23.2	22.1	21.1	25.2	23.6	21.4	20.1	24.8	24.7	19.7	24.7	25.0	28.0	25.0	25.2	20.1	20.0	23.6	22.4	24.1	19.0	27.5	21.5
A549, 6h, 5 Gy	N	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Mean	24.7	24.5	21.9	24.6	24.1	26.1	25.1	25.3	22.9	24.8	28.5	25.0	23.6	22.5	22.6	25.3	24.6	22.6	20.6	25.5	25.4	20.1	25.7	26.3	28.4	25.5	25.7	20.7	20.4	23.9	22.7	25.6	19.5	29.4	21.9

C: Statistics (t-test, Kruskal-Wallis and Proc regression)

Material	Incubation time (h)	Dose (Gy)	18S rRNA	PUM1	PGK1	MRPL19	HPRT1	ITFG1	MRPSS	DPM1	CDKN1A	PES1	GADD45A	ABL1	POP4	PSMC4	ACTB	ELF1	TFRC	RPL37A	MT-ATP6	GUSB	CDKN1B	GAPDH	HMB5	IP08	TBP	YWHAZ	EIF2B1	RPLP0	RPS17	CASC3	B2M	POLR2A	PPIA	RPL30	UBC	
Pairwise comparisons t-test																																						
Pax vs EDTA																																						
Pax	0	0	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
EDTA	0	0	0.69	0.12	0.81	0.33	0.60	0.14	0.06	0.44	0.73	0.07	0.87	0.29	0.35	0.05	0.51	0.21	0.81	0.09	0.48	0.70	0.50	0.55	0.75	0.85	0.15	0.27	0.77	0.11	0.57	0.63	0.74	0.92	0.40	0.59	0.63	
	6	0	0.24	0.53	0.30	0.09	0.42	0.02	0.03	0.16	0.01	0.004	0.10	0.08	0.01	0.03	0.02	0.02	0.06	0.47	0.64	0.43	0.39	0.09	0.33	0.83	0.33	0.53	0.61	0.51	0.43	0.77	0.68	0.90	0.17	0.79	0.69	
	6	0.5	0.35	0.22	0.21	0.11	0.23	0.02	0.03	0.14	0.002	0.02	0.11	0.03	0.03	0.01	0.03	0.21	0.20	0.65	0.69	0.06	0.10	0.29	0.86	0.36	0.26	0.87	0.72	0.36	0.87	0.51	1.00	0.18	0.28	0.53		
	6	4	0.47	0.18	0.17	0.04	0.41	0.004	0.01	0.18	0.003	0.04	0.03	0.02	0.01	0.02	0.02	0.38	0.02	0.30	0.49	0.20	0.23	0.53	0.17	0.38	0.09	0.11	0.45	0.45	0.57	0.93	0.71	0.40	0.09	0.81	0.60	
EDTA only																																						
EDTA	0	0	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
	6	0	0.79	0.11	0.37	0.12	0.86	0.02	0.13	0.10	0.005	0.004	0.05	0.01	0.06	0.23	0.40	0.001	0.14	0.20	0.34	0.72	0.22	0.16	0.13	0.75	0.86	0.39	0.97	0.05	0.28	0.36	0.95	0.70	0.39	0.46	0.80	
	6	0.5	0.78	0.71	0.26	0.18	0.38	0.02	0.09	0.11	0.002	0.05	0.09	0.03	0.07	0.05	0.27	0.003	0.31	0.26	0.39	0.99	0.05	0.23	0.15	0.91	0.96	0.65	0.57	0.47	0.29	0.63	0.92	0.37	0.19	0.69		
	6	4	0.74	0.62	0.21	0.02	0.75	0.001	0.01	0.02	0.003	0.15	0.02	0.02	0.03	0.10	0.18	0.03	0.05	0.30	0.92	0.34	0.13	0.39	0.05	0.56	0.63	0.88	0.73	0.21	0.94	0.63	0.98	0.21	0.14	0.83	0.89	
Pax vs MF																																						
Pax	0	0	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
MF	0	0	0.56	0.33	0.49	0.65	0.54	0.16	0.35	0.95	0.87	0.56	0.32	0.63	0.47	0.64	0.49	0.32	0.83																			