

**ESM Table 12 Association of genetic risk scores with diabetes risks in CKB**

GRS	Weighting	Continuous GRS		Quartiles of GRS				
		OR [95%CI]	<i>p</i>	Q1 (reference)	Q2	Q3	Q4	<i>p</i> for trend
GRS-T								
	Unweighted	1.07[1.06-1.08]	8.94x10 <sup>-109</sup>	1.00[0.94-1.06]	1.33[1.26-1.40]	1.61[1.53-1.69]	2.03[1.95-2.13]	6.76x10 <sup>-90</sup>
	AGEN-T2D	1.07[1.06-1.07]	1.75x10 <sup>-125</sup>	1.00[0.94-1.06]	1.36[1.29-1.43]	1.62[1.54-1.70]	2.22[2.13-2.32]	2.75x10 <sup>-111</sup>
	DIAGRAMv3	1.07[1.07-1.08]	1.38x10 <sup>-138</sup>	1.00[0.94-1.06]	1.30[1.24-1.37]	1.57[1.50-1.65]	2.23[2.14-2.33]	2.36x10 <sup>-115</sup>
	MetaboChip	1.07[1.07-1.08]	4.26x10 <sup>-146</sup>	1.00[0.94-1.06]	1.35[1.28-1.42]	1.65[1.57-1.73]	2.32[2.22-2.42]	4.67x10 <sup>-125</sup>
	TransEthnic	1.08[1.07-1.08]	4.63x10 <sup>-155</sup>	1.00[0.94-1.06]	1.33[1.27-1.41]	1.67[1.59-1.75]	2.34[2.25-2.45]	5.25x10 <sup>-130</sup>
GRS-BC								
	Unweighted	1.09[1.08-1.10]	9.65x10 <sup>-93</sup>	1.00[0.95-1.05]	1.27[1.21-1.34]	1.51[1.43-1.58]	1.97[1.88-2.07]	2.04x10 <sup>-85</sup>
	AGEN-T2D	1.09[1.08-1.10]	4.83x10 <sup>-102</sup>	1.00[0.94-1.06]	1.19[1.13-1.25]	1.50[1.43-1.57]	2.00[1.92-2.09]	8.04x10 <sup>-94</sup>
	DIAGRAMv3	1.10[1.09-1.10]	5.55x10 <sup>-116</sup>	1.00[0.94-1.06]	1.25[1.19-1.32]	1.46[1.39-1.53]	2.07[1.99-2.16]	2.67x10 <sup>-96</sup>
	MetaboChip	1.10[1.09-1.11]	9.17x10 <sup>-123</sup>	1.00[0.94-1.06]	1.27[1.20-1.33]	1.56[1.49-1.64]	2.12[2.03-2.21]	9.30x10 <sup>-104</sup>
	TransEthnic	1.10[1.09-1.11]	2.28x10 <sup>-126</sup>	1.00[0.94-1.06]	1.27[1.21-1.34]	1.61[1.53-1.69]	2.17[2.08-2.26]	4.82x10 <sup>-111</sup>
GRS-IR								
	Unweighted	1.05[1.03-1.07]	5.97x10 <sup>-9</sup>	1.00[0.95-1.05]	1.10[1.05-1.16]	1.14[1.08-1.19]	1.22[1.16-1.29]	3.46x10 <sup>-8</sup>
	AGEN-T2D	1.04[1.03-1.06]	1.47x10 <sup>-7</sup>	1.00[0.95-1.05]	1.05[1.00-1.11]	1.13[1.07-1.18]	1.15[1.10-1.21]	5.46x10 <sup>-6</sup>
	DIAGRAMv3	1.05[1.03-1.07]	1.56x10 <sup>-6</sup>	1.00[0.95-1.05]	1.13[1.07-1.18]	1.13[1.08-1.19]	1.19[1.13-1.25]	5.31x10 <sup>-6</sup>
	MetaboChip	1.06[1.04-1.08]	2.75x10 <sup>-7</sup>	1.00[0.95-1.05]	1.11[1.06-1.17]	1.17[1.11-1.23]	1.19[1.14-1.25]	3.26x10 <sup>-7</sup>
	TransEthnic	1.06[1.04-1.08]	7.051x10 <sup>-8</sup>	1.00[0.95-1.05]	1.08[1.03-1.13]	1.14[1.09-1.20]	1.19[1.14-1.25]	1.68x10 <sup>-7</sup>