Supplementary Materials

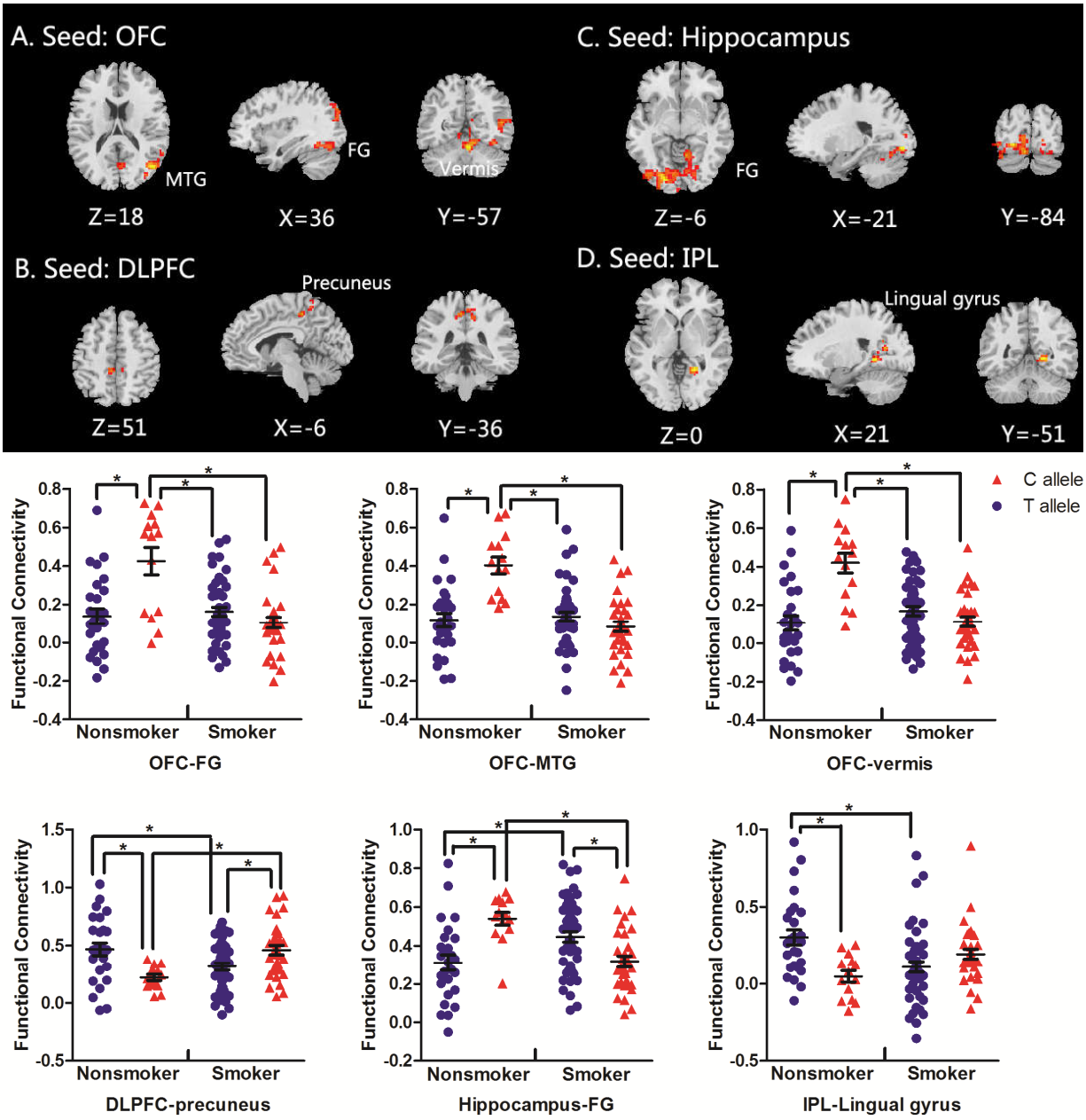

Fig. S1 The interactions between MAOA rs1137070 and smoking on functional connectivity with brain areas showing significant difference in FCS analysis as seeds. (A) Interactions between MAOA rs1137070 and smoking on functional connectivity between OFC and FG, MTG and vermis. (B) Interactions between MAOA rs1137070 and smoking on functional connectivity between DLPFC and precuneus. (C) Interactions between MAOA rs1137070 and smoking on functional connectivity between hippocampus and FG. (D) Interactions between MAOA rs1137070 and

smoking on functional connectivity between IPL and lingual gyrus. (Multiple comparisons were corrected at a threshold of voxel-level $p < 0.001$, cluster-level $p < 0.05$ based on Gaussian random field theory.)

Table S1 The locations of the FC results showing interaction between MAOA rs1137070 and smoking with the FCS results as seeds.

Seed	Voxels	Brain regions	MNI coordinate	Peak F	p
OFC	104	FG	36 -75 -18	15.9514	< 0.001
	700	vermis	3 -57 -21	21.1938	< 0.001
	239	MTG	48 -69 18	20.6586	< 0.001
DLPFC	99	Precuneus	-6 -36 51	15.0979	< 0.001
Hippocampus	761	FG	-21 -84 -6	20.1317	< 0.001
IPL	68	Lingual gyrus	21 -51 0	16.2979	< 0.001

FG, fusiform gyrus; MTG, middle temporal gyrus.

We can see that the seed-based rsFC patterns are similar to the FCS patterns of the four seeds. Moreover, these seed-based rsFC results indicated that the four regions were connected with areas involved in receiving auditory and visual inputs, integrating information from external environment and identifying perceptual features. The gene polymorphism (rs1137070) might contribute to the stimuli-smoking association through these pathways. Thus, these pathways played a role in the interactions between gene (MAOA rs1137070) and environment (smoking).