

Additional file 1

Figure S1 represents example of block design used to allocate two families to each group. All families in the block are unrelated to each other.

Family ID	2	3	4	5	6	7	8	9	10	11
1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11
2		2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11
3			3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11
4				4-5	4-6	4-7	4-8	4-9	4-10	4-11
5					5-6	5-7	5-8	5-9	5-10	5-11
6						6-7	6-8	6-9	6-10	6-11
7							7-8	7-9	7-10	7-11
8								8-9	8-10	8-11
9									9-10	9-11
10										10-11

Figure S1 Example of the block design used to allocate two families to each group