

## Supplementary Table S1 and Supplementary Figure S1

### Analysis of genetic admixture in Uyghur using the 26 Y-STR loci system

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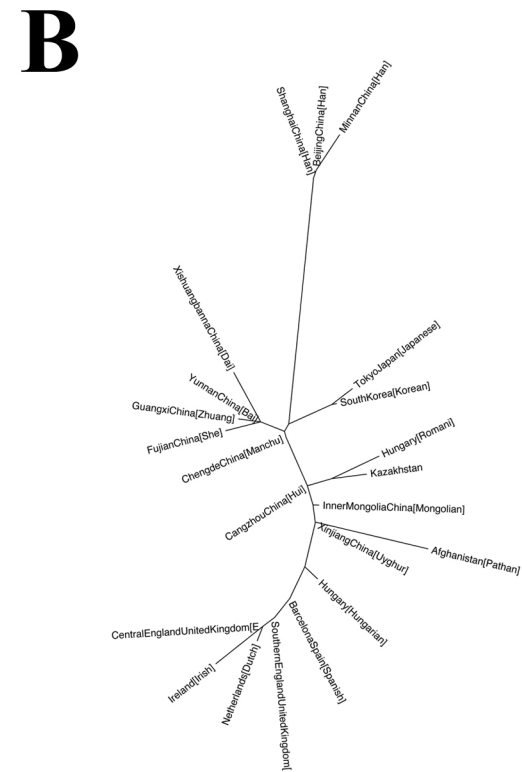
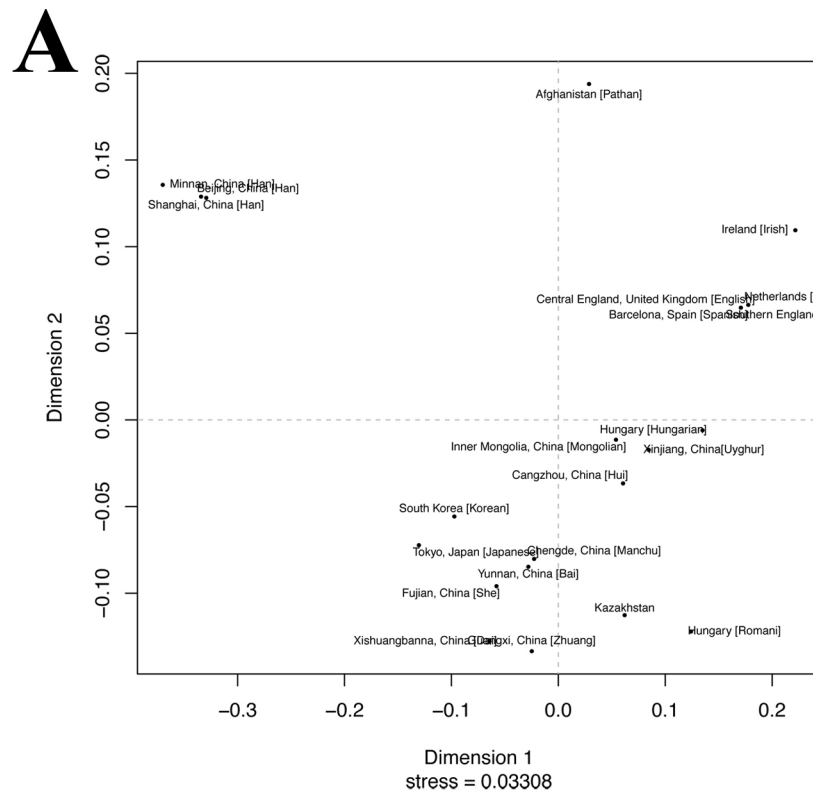
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Supplementary Table S1. Haplotypes for 26 Y-STR loci detected in 100 unrelated males of Uygur from southern Xinjiang, China.

ID	Population	DYS19	DYS389I	DYS389II	DYS390	DYS391	DYS392	DYS393	DYS385ab	DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS635	Y	GATA	H4	DYS576	DYS570	DYS481	DYS533	DYS549	DYS643	DYS460	DYS449	DYS388
1	Xinjiang, China[Uyghur]	13	12	30	25	11	13	14	13,20	15	10	11	19	15	16	22	13	19	17	23	11	14	9	9	27	12		
2	Xinjiang, China[Uyghur]	15	12	28	25	11	11	13	11,14	14	11	10	20	14	15	23	13	18	17	23	12	12	10	11	33	12		
3	Xinjiang, China[Uyghur]	15	13	29	24	10	11	13	12,14	14	11	12	16	17	17	21	11	17	20	27	11	12	10	9	25	13		
4	Xinjiang, China[Uyghur]	14	14	31	23	11	14	12	11,12	14	10	10	18	14	18	20	11	17	18	21	12	12	12	10	32	12		
5	Xinjiang, China[Uyghur]	14	12	28	24	10	11	12	14,17	15	9	11	21	15	16	21	11	18	16	24	13	12	11	32	15			
6	Xinjiang, China[Uyghur]	17	12	28	24	10	13	12	14,19	15	10	13	20	15	21	21	11	18	20	26	11	12	11	10	31	12		
7	Xinjiang, China[Uyghur]	17	12	27	23	10	13	12	12,17	15	10	12	19	14	18	21	11	18	16	24	12	14	12	9	30	12		
8	Xinjiang, China[Uyghur]	14	13	29	24	10	14	12	11,14	15	12	12	18	15	14	23	12	18	13	22	11	13	10	10	29	12		
9	Xinjiang, China[Uyghur]	16,17	14	31	23	9	11	13	12	14	10	11	20	15	18	24	10	19	17	27	11	12	9	11	32	12		
10	Xinjiang, China[Uyghur]	16	14	30	24	10	11	13	11,14	14	11	10	20	15	16	23	13	18	21	24	12	12	10	11	31	12		
11	Xinjiang, China[Uyghur]	15	12	29	23	10	13	12	12,17	15	10	11	19	15	16	19	12	19	17	22	11	14	12	9	32	12		
12	Xinjiang, China[Uyghur]	13	14	30	24	9	14	14	15,22	14	12	10	19	15	15	22	10	19	18	23	12	12	10	10	31	12		
13	Xinjiang, China[Uyghur]	14	13	29	24	10	11	12	13,16	15	10	11	19	15	20	21	11	17	18	23	12	13	9	11	30	14		
14	Xinjiang, China[Uyghur]	16	13	31	24	10	13	12	13,17	15	9	10	19	15	16	21	13	18	14	25	12	15	9	9	32	12		
15	Xinjiang, China[Uyghur]	15	12	29	23	10	11	14	13,14	16	10	11	20	17	17	21	12	16	17	21	9	12	11	10	29	12		
16	Xinjiang, China[Uyghur]	15	14	32	25	10	11	13	11,14	14	11	10	20	16	15	23	13	18	19	24	12	13	10	11	31	12		
17	Xinjiang, China[Uyghur]	15	14	30	25	11	13	12	12,17	15	10	12	19	14	17	24	14	19	19	24	11	12	10	10	31	12		
18	Xinjiang, China[Uyghur]	14	14	30	19	11	13	13	13	15	10	13	19	15	18	24	11	16	17	24	13	12	8	10	32	12		
19	Xinjiang, China[Uyghur]	15	13	32	25	10	11	13	11,14	14	11	12	20	16	15	23	12	18	18	25	11	12	10	11	33	12		
20	Xinjiang, China[Uyghur]	14	13	31	23	10	14	14	11,13	14	10	10	19	15	18	22	12	18	20	20	11	11	11	10	30	12		
21	Xinjiang, China[Uyghur]	15	14	30	25	11	11	13	11,13	14	11	10	20	16	14	23	12	17	19	23	12	12	10	10	34	12		
22	Xinjiang, China[Uyghur]	13	13	32	25	11	11	13	15,17	14	10	13	20	16	19	22	11	16	18	25	10	12	11	10	31	12		
23	Xinjiang, China[Uyghur]	15	13	30	25	11	11	13	11,15	14	11	10	20	15	15	23	12	12	13	10	11	33	12					
24	Xinjiang, China[Uyghur]	16	13	30	24	11	11	13	11,20	14	11	10	20	14	15	23	13	16	19	23	12	10	12	30	12			
25	Xinjiang, China[Uyghur]	14	13	28	25	10	13	12	13,20	15	11	12	20	15	18	20	12	18	18	23	11	13	12	9	32	10		
26	Xinjiang, China[Uyghur]	15	12	29	23	10	12	13	12,17	14	10	12	18	16	18	19	13	19	16	22	13	13	11	9	32	12		
27	Xinjiang, China[Uyghur]	16	13	28	23	10	14	12	13,17	14	10	12	20	15	17	21	11	17	17	25	11	12	10	10	31	12		
28	Xinjiang, China[Uyghur]	14	14	30	23	10	15	14	11,13	14	10	10	19	13	17	21	13	16	19	20	10	11	11	29	12			
29	Xinjiang, China[Uyghur]	15	13	30	25	10	11	13	12,14	14	11	10	20	15	16	23	11	19	20	23	12	13	10	11	32	12		
30	Xinjiang, China[Uyghur]	15	14	30	25	10	7	13	11	14	11	13	19	15	17	21	11	18	19	26	12	14	11	10	32	12		
31	Xinjiang, China[Uyghur]	13	13	31	24	10	14	13	14,17	14	11	12	18	15	18	22	11	19	17	24	12	13	10	10	29	12		
32	Xinjiang, China[Uyghur]	16	13	29	23	10	11	15	11,18	14	10	11	21	15	16	22	11	17	17	22	14	13	9	11	30	14		
33	Xinjiang, China[Uyghur]	15	13	30	24	9	11	13	12	14	10	11	20	14	19	23	10	19	17	27	11	12	9	11	32	13		
34	Xinjiang, China[Uyghur]	14	13	29	24	11	13	12	11,15	15	12	13	19	15	18	23	12	17	18	22	12	13	10	10	28	12		
35	Xinjiang, China[Uyghur]	14	13	29	23	11	13	12	12,13	14	12	12	19	16	15	23	13	17	17	21	12	12	10	11	29,30	12		
36	Xinjiang, China[Uyghur]	14	14	30	24	10	11	12	13,16	15	10	11	19	15	19	21	11	17	19	23	12	14	9	11	29	14		
37	Xinjiang, China[Uyghur]	15	13	29	23	10	11	15	13,17	14	10	11	21	15	16	21	11	17	17	26	12	13	8	10	32	13		
38	Xinjiang, China[Uyghur]	14	13	30	25	10	14	12	13,21	15	10	12	19	15	18	23	11	14	17	24	10	13	10	9	33	12		
39	Xinjiang, China[Uyghur]	14	13	29	23	10	11	12	13,16	15	10	11	19	15	20	21	11	17	18	23	12	14	9	11	29	14		
40	Xinjiang, China[Uyghur]	15	12	28	23	11	12	12	12,16	15	10	12	19	16	20	20	12	18	17	22	11	13	11	10	33	12		
41	Xinjiang, China[Uyghur]	15	13	30	25	11	11	13	11,14	14	11	10	20	17	15	23	12	17	20	23	12	11	10	11	32	12		
42	Xinjiang, China[Uyghur]	14	14	29	19	11	13	13	13	15	10	12	19	15	17	24	11	16	17	24	13	12	8	10	33	12		
43	Xinjiang, China[Uyghur]	17	12	28	24	10	13	12	14,20	15	10	12	20	15	18	22	11	18	19	26	12	12	11	10	32	12		
44	Xinjiang, China[Uyghur]	16	14	30	24	10	14	13	11,13	14	11	11	19	17	15	24	12	17	20	25	13	13	13	10	30	12		
45	Xinjiang, China[Uyghur]	15	13	29	22	10	14	12	9,16	16	10	13	20	15	17	22	11	15	15	24	12	11	11	11	31	12		
46	Xinjiang, China[Uyghur]	15	14	30	23	11	11	13	14,16	16	10	11	22	15	18	23	12	17	16	19	11	12	12	11	27	12		
47	Xinjiang, China[Uyghur]	15	13	31	25	11	11	13	11,15	14	11	10	20	16	15	23	13	18	19	23	11	12	10	12	32	12		
48	Xinjiang, China[Uyghur]	13	14	31	23	11	16	13	14,15	14	11	12	21	15	18	22	11	17	20	25	11	11	10	11	26	12		
49	Xinjiang, China[Uyghur]	15	14	31	23	10	11	13	14,17	16	10	12	21	18	16	21	10	16	18	20	10	12	12	11	28	12		
50	Xinjiang, China[Uyghur]	15	13	29	22	11	15	12	9,16	16	10	12	19	15	19	22	12	17	16	24	12	12	11	10	29	12		
51	Xinjiang, China[Uyghur]	16	12	27	22	11	11	12	12,16	15	9	12	20	15	15	21	12	15	16	22	11	13	11	10	31	15		
52	Xinjiang, China[Uyghur]	15	14	29	23	10	11	14	11,18	14	10	12	21	15	17	20	11	18	16	25	12	12	9	10	29	12		
53	Xinjiang, China[Uyghur]	15	14	32	26	11	11	13	11,15	14	11	10	20	16	16	23	13	18	18	24	12	13	10	11	33	12		
54	Xinjiang, China[Uyghur]	15	14	31	25	10	11	13	11,14	14	11	10	20	15	16	23	12	20	16	24	12	12	10	11	32	12		
55	Xinjiang, China[Uyghur]	15	13	29	26	10	11	13	11,15	14	11	11	20	18	15	23	12	17	19	24	12	10	10	11	31	12		
56	Xinjiang, China[Uyghur]	15	13	29	24	10	13	12	12,20	15	11	13	20	15	15	21	11	18	18	24	11	12	11	9	33	10		
57	Xinjiang, China[Uyghur]	15	14	30	23	10	14	13	13	14	10	11	18	17	15	19	12	17	20	25	11	12	11	10	31	12		
58	Xinjiang, China[Uyghur]	13	13	30	23	10	14	13	15,16	13	12	14	19	15	16	22	11	20	19	25	11	11	11	10	30	12		
59	Xinjiang, China[Uyghur]	14	12	28	23	10	11	13	14	16	10	11	21	14	15	22	11	18	21	25	12	13	12	10	28	14		

Supplementary Table S1. Haplotypes for 26 Y-STR loci detected in 100 unrelated males of Uygur from southern Xinjiang, China. (Continued)

ID	Population	DYS19	DYS389I	DYS389II	DYS390	DYS391	DYS392	DYS393	DYS385ab	DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS635	Y	GATA_H4	DYS576	DYS570	DYS481	DYS533	DYS549	DYS643	DYS460	DYS449	DYS388
60	Xinjiang, China[Uyghur]	13	14	30	22	10	15	13	11,18	14	11	14	18	15	17	22	10	20	16	25	10	14	12	11	27	12	
61	Xinjiang, China[Uyghur]	17	14	31	25	11	11	13	11,14	14	11	11	20	15	16	23	12	18	18	23	13	12	10	11	31	12	
62	Xinjiang, China[Uyghur]	17	13	31	25	10	11	14	11,14	14	11	10	20	15	14	23	13	19	19	25	12	12	10	11	33	12	
63	Xinjiang, China[Uyghur]	14	13	29	22	11	14	11	13,17	15	11	13	19	16	15	22	12	16	16	23	12	12	10	10	27	13	
64	Xinjiang, China[Uyghur]	15	14	30	25	10	7	13	11	14	11	12	19	15	17	21	11	19	19	26	12	13	11	11	32	12	
65	Xinjiang, China[Uyghur]	15	13	32	24	10	11	13	11,14	14	11	10	20	16	15	23	12	17	19	23	12	12	10	11	32	12	
66	Xinjiang, China[Uyghur]	14	13	30	20	10	13	13	12,14	15	12	12	19	15	14	27	11	18	17	23	13	12	11	11	32	12	
67	Xinjiang, China[Uyghur]	15	14	31	25	10	11	13	11,14	14	11	10	20	16	16	24	12	18	21	24	12	12	10	11	33	12	
68	Xinjiang, China[Uyghur]	15	12	29	23	10	13	12	12,17	14	10	12	19	16	16	19	11	18	18	24	11	13	11	9	34	12	
69	Xinjiang, China[Uyghur]	14	12	29	24	11	11	12	14,15	14	9	12	19	14	16	22	12	18	17	23	11	12	10	11	29	14	
70	Xinjiang, China[Uyghur]	17	13	31	24	11	11	13	11,14	14	11	10	20	15	17	23	13	16	19	24	12	13	10	11	30	12	
71	Xinjiang, China[Uyghur]	15	14	29	23	10	10	14	13,16	15	11	10	19	14	17	26	12	19	16	25	11	13	10	10	32	12	
72	Xinjiang, China[Uyghur]	15	14	32	24	11	11	13	11,15	14	11	10	20	15	15	23	13	19	19	23	12	12	10	11	30	12	
73	Xinjiang, China[Uyghur]	15	12	29	23	10	13	12	13,18	15	10	12	19	15	17	19	12	18	17	22	10	12	14	9	35	12	
74	Xinjiang, China[Uyghur]	14	13	29	24	10	11	12	13,16	15	10	11	19	15	20	21	11	18	19	23	12	13	9	11	31	14	
75	Xinjiang, China[Uyghur]	15	14	31	25	10	7	13	11	14	11	12	19	15	17	21	11	18	19	26	11	13	11	11	31	12	
76	Xinjiang, China[Uyghur]	15	13	30	26	11	11	13	11	14	11	10	20	16	15	24	13	18	18	23	12	12	10	12	35	12	
77	Xinjiang, China[Uyghur]	14	13	31	23	10	14	14	11,13	14	10	10	19	14	17	22	12	17	20	20	12	11	11	11	30	12	
78	Xinjiang, China[Uyghur]	14	14	31	23	10	11	12	14,19	15	9	12	20	16	15	21	12	18	16	22	11	11	10	11	31	16	
79	Xinjiang, China[Uyghur]	15	13	32	24	11	11	13	11,14	14	11	10	20	15	15	23	12	17	20	23	12	12	10	11	34	12	
80	Xinjiang, China[Uyghur]	16	13	30	24	11	11	12	11,15	14	11	10	20	16	15	23	12	18	19	22	12	12	10	12	32	12	
81	Xinjiang, China[Uyghur]	15	13	30	24	10	13	12	13,18	15	9	10	19	15	15	21	13	19	14	25	12	15	9	9	32	12	
82	Xinjiang, China[Uyghur]	13	15	32	23	11	16	13	14,15	14	11	12	21	16	18	22	11	17	19	25	11	12	10	11	26	12	
83	Xinjiang, China[Uyghur]	15	14	30	19	11	13	13	13,14	15	10	13	19	15	17	24	11	16	17	24	12	12	8	10	33	12	
84	Xinjiang, China[Uyghur]	14	13	29	25	11	13	12	14	15	12	13	19	16	16	23	12	17	16	23	12	13	9	11	31	12	
85	Xinjiang, China[Uyghur]	14	14	30	23	11	10	13	14,18	16	11	11	19	15	15	24	13	16	17	25	10	13	10	12	32	12	
86	Xinjiang, China[Uyghur]	16	14	31	25	11	11	13	11,14	14	12	10	21	16	15	23	10	18	17	24	13	12	10	11	32	12	
87	Xinjiang, China[Uyghur]	16	14	30	25	10	7	13	11	14	11	12	19	16	16	21	11	19	18	25	11	13	11	11	30	12	
88	Xinjiang, China[Uyghur]	14	14	32	23	10	13	13	14,16	14	9	11	19	17	17	21	11	16	17	22	12	14	10	10	31	12	
89	Xinjiang, China[Uyghur]	15	13	29	24	10	11	13	12,15	14	11	12		14	18	21	11	17	24	28	12	12	10	9	29	13	
90	Xinjiang, China[Uyghur]	13	13	30	23	10	14	13	15,16	13	12	13	19	15	16	22	12	20	19	25	11	11	11	10	30	12	
91	Xinjiang, China[Uyghur]	15	13	29	22	10	13	14	10,21	14	13	12	18	14	19	20	12	19	17	22	11	12	12	11	32	12	
92	Xinjiang, China[Uyghur]	14	14	31	23	11	14	12	11,12	14	10	10	18	14	18	20	11	17	18	21	12	12	12	10	32	12	
93	Xinjiang, China[Uyghur]	13	13	30	23	10	14	13	15,16	13	12	13	19	15	15	22	11	20	18	25	11	11	11	10	30	12	
94	Xinjiang, China[Uyghur]	17	12	28	24	10	13	13	14,20	15	10	12	20	15	17	21	12	18	18	21	11	13	11	11	32	13	
95	Xinjiang, China[Uyghur]	15	14	30	25	10	7	13	11	14	11	12	19	16	16	22	11	18	20	25	11	14	10	11	31	12	
96	Xinjiang, China[Uyghur]	17	13	29	25	10	11	13	12	14	10	10	22	15	18	21	11	17	16	25	12	12	10	10	27	14	
97	Xinjiang, China[Uyghur]	15	13	30	24	11	13	13	13,24	15	10	11	20	15	15	20	11	17	19	24	11	13	12	9	31	12	
98	Xinjiang, China[Uyghur]	14	13	28	24	10	14	12	12,13	15	11	11	20	16	15	21	12	19	18	23	11	13	11	10	34.1	10	
99	Xinjiang, China[Uyghur]	15	14	30	22	10	11	12	14,16	14	9	11	19	17	15	20	21	11	13	18	23	12	12	9	11	31	12
100	Xinjiang, China[Uyghur]	14	13	29	24	10	11	12	13,16	15	10	11	19	15	20	21	11	20	18	23	12	12	14	10	10	30	14



**Supplementary Figure S1. MDS plot and neighbour-joining phylogenetic tree.** A, MDS plot of the Uyghur population and 21 different European, Central Asian or Eastern Asian populations based on  $R_{ST}$ . B, Neighbour-joining phylogenetic tree of the Uyghur population and the European, Central Asian and Eastern Asian populations based on a distance matrix of  $R_{ST}$ .