





GG445, GG460, GG466, GG534, GG573, GG597, GG600, GG629, GG644, GG669, GG674, GG709, GG729, GG745, GG746, GG764, GG769, GG831, F5177/Z32063/GG708, PR5314/GG560, Z18102/GG682, Z56986/GG843	
14 SNPs	B2017-Ukrainian-3
35 SNPs	FTDNA-225031 (Burns)
PH2558	
A8905, 20 SNPs	FTDNA-B22731 (Grande)
PH4238/V3789	
V1948	T2015-S63 (Europe)
M1291, PH410, PH616, PH673, PH1646, PH2444, PH2558, PH2970, PH5182, PH5190, PH5335, PH5437	H2014-bav-31 (Bavarian)
FGC42003, FGC42006, FGC42011, FGC42013, FGC42029, FGC42030, FGC42031, FGC42034	
A139, 28 SNPs	FTDNA-65964 (Merante)
Y31465, Y31466, Y31467, Y31468, Y31469, Y32004/Y32037, Y32005/Y32038, Y32006/Y32039, Y32007/Y32040, Y32008/Y32041	
10 SNPs	FTDNA-M11418 (Abu-Kamar)
10 SNPs	FTDNA-M11245 (Faraj)
ZS8842, 9 SNPs	FTDNA-M11416 (Awar)
S15929, S19864, V3286/Z29774, V3360/Z29777, V3870/Z29776, Y21234, Y21235, Y21236, Y21237, Y21238, Y21239, Y27959, Z29765, Z29767, Z29768, Z29769, Z29770, Z29771, Z29772, Z29773, Z29775, Z29778, Z29779, Z29780, Z29781, Y:5345466 (C/T), Y:6711853 (G/T), Y:8212249 (A/G), Y:8828406 (G/C), Y:9806614 (A/G), Y:18649790 (A/C)	
V3863	T2015-S55 (Europe)
Y:3853201 (T/G), Y:9243644 (C/T), Y:12381496 (G/A), Y:13571104 (G/T), Y:19706112 (G/A), Y:20031473 (A/C)	PF2013-981/PF2015-973 (Sardinian)
Z29782	
Y:3852906 (G/C), Y:9928073 (C/T), Y:10623931 (T/C), Y:11071927 (G/A), Y:15438629 (G/A), Y:15530403 (T/G), Y:16759189 (A/G), Y:17208240 (A/T), Y:19339154 (T/C), Y:19339183 (T/C), Y:19339185 (G/A), Y:20076005 (G/A), Y:20604735 (G/T), Y:20917287 (G/A), Y:21707199 (C/T), Y:25375770 (A/G)	ERS256983/PF2013-982/PF2015-974 (Sardinian)
BY18740, Z29783, Z29784	
PR3337, Y:6672118 (C/A), Y:15912473 (G/T)	PF2013-983/PF2015-975 (Sardinian)
Y:3733548 (A/T), Y:4895637 (C/T), Y:5736061 (G/A), Y:5893560 (C/T), Y:6829835 (A/C), Y:7098576 (A/G), Y:7809123 (C/A), Y:10213901 (C/A), Y:11910982 (C/G), Y:12739154 (G/C), Y:12939079 (G/T), Y:19937989 (T/C), Y:20125995 (G/T), Y:20263409 (C/A), Y:20814996 (T/C), Y:20939560 (G/C), Y:21355820 (A/T), Y:21738037 (T/A), Y:26392729 (T/C)	ERS256985/PF2013-984/PF2015-976 (Sardinian)
L23/S141/PF6534, L478/PF6403, PF6404	
CTS7340.1/Z2107.1, CTS9416, CTS1078/GG419/Z2103, GG400/M12149/Y4371/Z2128, GG673/S2090/Z2130, M12132/Y12536/Z2127, M12145/Y12537/Z2129, PF7575/Z2104, PF7585, Z2105	
	I0126, Kutuluk III, Kutuluk River, Samara (Russia), 2867-2484 calBCE (AA53803)
	RISE548, Temrta IV (Russia), Yamnaya_Kalmykia
	RISE555, Stalingrad Quarry (Russia), 2857-2497 calBCE (AAR-20358)
	RISE547, Temrta IV (Russia), 2887-2634 calBCE (GrA-58960)
	BDNA-594
S7721	
PF331, FGC35088, Y:10116175 (A/G), Y:25835737 (C/T)?	HGDP00060 (Balochi, Pakistan)
SK2092	
DC830, FGC35029, FGC35046, FGC35048, FGC35049, FGC35051, FGC35053, FGC35056, FGC35057, FGC35060, FGC35063, FGC35064, FGC35065, FGC35066, FGC35067, FGC35074, FGC35076, FGC35077, FGC35080, FGC35081, FGC35083, FGC35086, FGC35091, FGC35092, FGC35093, 6 SNPs	FTDNA-247436
PH1949, Y:7930779 (G/A), Y:9565816 (C/T), Y:12276124 (T/C), Y:14750520 (A/G), Y:15542708 (A/T), Y:15644509 (A/C), Y:17083022 (G/A), Y:17096881 (G/A), Y:18988009 (A/G), Y:19735343 (A/G), Y:19864629 (C/G), Y:20058669 (C/T), Y:20524247 (T/C), Y:20543021 (T/A), Y:21033591 (C/T), Y:21292059 (T/C), Y:21682127 (T/C), Y:22269018 (T/A)	
10 SNPs	FTDNA-310308 (AlSagur Al-Subale)
15 SNPs	FTDNA-M11715 (Ahmad)
BY3718	
FGC19178, M365, M8200 33 (+327) SNPs	FTDNA-526066 (Jordan)
BY3719, PR2842	
	RISE550, Peshary V (Russia), 3334-2635 calBCE (IGAN-2880)
	B2017-KaraNoghah-1
	K2015-GS000018404-Avar9 (Avars, Dagestan_Gergebil)
	FTDNA-567529 (Clark / Carter)
A366/M12148/Y4365, A367/M12155/Y4362, A368/GG602/M589/Y4367, A370, GG404/M12160/Y4363, GG441/M12141/Y4364, GG627/M12159/Y4372, GG734/Y4368, GG735/Y4369, L277/S334, M12159/Y4372, Y4370, Y37981, Y37982, Y:20317428 (C/A)	
	HGDP00143 (Makran, Pakistan)
	BDNA-1928
	B2017-CrimeanTatar-1
	FTDNA-? (Atabekyan)
	FTDNA-255338 (Soghomyan)
A13597/BY13762, A13594/BY13764, BY13763/PH945	
FGC25419, PH928, PH1308, PH1606, PH2699, PF4805/Z2358	H2014-hun-34 (Hungarian)
FGC17158/ZS1618, Z11031, 34 SNPs	FTDNA-343579 (Hampartzmyan)
Y35893	
20 SNPs	FTDNA-? (Amadouy)
F17883, FGC20288, Y35886, Y35887, Y35888, Y35889, Y35890, Y35891, Y35892, Y36307, Y36308, Y36309, Y36310, Y36311, Y36312, Y36313, Y36314, Y:11063841 (T/A)	
Z1526, 8 SNPs	FTDNA-M6552 (Hussain)
Y:9325541 (C/T), Y:15590838 (G/A), Y:16958779 (G/T), Y:19834092 (G/T)	
2 SNPs	FTDNA-M11828
FGC7523, 9 SNPs	FTDNA-M10384 (Ahmad Mohamad)
Y31308, Y31309, Y31310, Y32349, Y32350, Y32351, Y32352, Y32353, Y32354, Y32355, Y:9899704 (G/A), Y:11504607 (A/G)	
FGC32991, 18 SNPs	FTDNA-184611 (Parsadianian)
Z20313, 16 SNPs	FTDNA-46561 (Ketendjian)
M12135, Y:16082352 (A/G), Y:20084874 (C/T)	
CTS7078, CTS9640, 40 SNPs	K2015-GS000020437-ISR31, R2013-16133 (Turkey-Jews, Ankara)
30 SNPs	FTDNA-444722 (Nanasov)
M9063/PF4522/YSC0001322, PF2542, PF4934, 19 SNPs	FTDNA-184555 (Bahlavouni)
Y:8599505 (G/A), Y:12540437 (G/A)	
21 SNPs	FTDNA-331346 (Kuymruyan)
Y:7717583 (T/C), Y:3018146 (A/C), Y:21581661 (T/C)	
22 SNPs	FTDNA-166332 (Gulbenk)
23 SNPs	FTDNA-350644 (Mareci)
Y30217	
M190/PAGES0003/PF1373, 14 SNPs	FTDNA-164199 (Melik-Adamyany)
FGC55087, PR1633, Z3490, 27 SNPs	FTDNA-291770 (Soferyan)
F4140/M7448/S6766, M12133, M12140, M12142, M12143, M12147, M12150, M12152, M12158, M12164, M12166/SK341, M12171, M12173, M12175, M12181, M12182, M12187, PR4830	
M12134, M12136, M12137, M12138, M12139, M12144, M12146, M12151, M12153, M12154, M12156, M12157, M12161, M12162, M12163, M12165, M12167, M12168, M12169, M12170, M12172, M12174, M12176, M12177, M12178, M12179, M12180, M12183, M12184, M12185, M12186	
12 SNPs	U2015-PG1806 (Sephardic)
Y:20283066 (G/C)	K2015-GS000021461-Israeli48, R2013-16886 (Moroccan-Jews, Rabat)
BY3294, Y:20688217 (T/C)	
FGC7514/Z43831/ZS263, FGC32268/Y6274, YSC0000108-, 31 SNPs	FTDNA-95875 (Stacy)
BY927/FGC34112/Z33916, E339/S826/Z4030, Y:8636440 (C/A), Y:8683401 (C/T), Y:9617711 (T/A), Y:12465209 (C/A), Y:14130249 (G/T), Y:14764698 (C/T), Y:15030724 (C/G), Y:17131881 (C/T), Y:19147088 (A/C), Y:19940777 (G/C), Y:19996420 (A/T), Y:20274677 (C/T), Y:21145805 (C/T)	
FGC22000/K696/M378/Z2735/ZS3800, 11 SNPs	FTDNA-N97723 (Lakkis)
2 SNPs	FTDNA-219974 (Lakkis)
A1864, BY3716, FGC35458, FGC53691, Y:6878071 (C/A), Y:7930774 (G/A), Y:8066403 (G/A), Y:8229013 (A/C), Y:8926175 (A/T), Y:12317929 (T/C), Y:13655679 (G/A), Y:13829883 (C/A), Y:15598590 (C/T), Y:15736224 (G/T), Y:15738595 (T/C), Y:19102845 (T/A), Y:19136611 (G/A), Y:20310061 (G/C)	
P53, 18 SNPs	FTDNA-30885 (Mattoli)
2 SNPs	FTDNA-330027 (Contrisciane)
Y4368	
SK2089, SK2091	HGDP00052 (Balochi, Pakistan)
Y36437	
L409, 25 SNPs	FTDNA-243604 (Ormonde)
CTS1928, CTS3900, CTS4450, CTS12939, F3848, S21563	1KGP-NA20532 (Toscani in Italia)
BY3293, BY13830	
B22428, 33 SNPs	FTDNA-? (Melik-Aghajanyan)
FGC44518, Y:7070513 (G/A), Y:7327803 (A/G), Y:7967176 (G/A), Y:8524314 (A/G), Y:8819397 (T/C), Y:9266760 (A/T), Y:9286018 (A/G), Y:10023823 (G/C), Y:10199335 (G/C), Y:11504171 (A/C), Y:11681489 (G/T), Y:12393272 (G/A), Y:13812583 (T/C), Y:14064295 (G/T), Y:14707685 (A/T), Y:15754962 (C/T), Y:16438696 (G/C), Y:16926963 (G/A), Y:17368288 (T/A), Y:19880076 (C/A), Y:19908668 (A/C), Y:20111502 (T/A), Y:20760033 (C/G), Y:21134174 (T/C)	
10 SNPs	FTDNA-257597 (Keledjian)
1 SNP	FTDNA-596416 (Keledjian)
Y19860	
S25536, 26 SNPs	FTDNA-M11126 (Ward)
BY13831, FGC52247, Y19847, Y19848, Y19849, Y19850, Y19851, Y19852, Y19853, Y19854, Y19855, Y19856, Y19857, Y19858, Y19859, Y19861, Y19862, Y19863, Y19864, Y19865, Y19866, Y19867, Y19868, Y19869, Y24544, Y24736, Y24860, Y36887, Y3719, Y:7650400 (C/G), Y:28673030 (C/T)	
5 SNPs	FTDNA-N7850 (Palgon)
A13358, A13359, Y:19422593 (A/C)	
4 SNPs	FTDNA-325426 (Wiel)
3 SNPs	FTDNA-395148 (Frankel)
PR7224, 6 (+287) SNPs	FTDNA-236189 (Pollak)
Y24151, 9 SNPs	FTDNA-500543 (Rottenberg)
Y31293	
1 (+127) SNPs	FTDNA-336217 (Wertheimer)
CTS3762/Z2766, 2 (+207) SNPs	FTDNA-454200 (Steinberg)
6 SNPs	FTDNA-N44952 (Rokeach)
Y24543, Y24544, Y24735/YFS1250258	
5 (+127) SNPs	FTDNA-291005 (Gordon)
Y24734/YFS1250584	
5 SNPs (+347) SNPs	FTDNA-67609 (Gouide)
A11691, A11692, A11693 (+227) SNPs	FTDNA-299691 (Wertheim)
A12328/FGC57342, FGC14586/Y13370, FGC14587/Y13095, FGC14588/Y13368, FGC14589/Y13369, FGC39469, FGC39470	
26 SNPs	FTDNA-415497 (Matuq Alhashim)
L584, KMS74?	
A12317, A12318, A12319, A12320, A12321, A12322, A12330, A12331, Y:11721337 (G/A)	
FGC10679, A3801, 54 SNPs	SGDP-LP6005442-DNA_G04_jez42 (Lezgin, Russia, Dagestanskiye_Ogni_in_Dagestan)
33 SNPs	K2015-GS000035452-Armen1 (Armenians, Vardenis)
29 SNPs	FTDNA-N229084 (Soukieh)
PH1141, PH1639, PH4150, Y18776, Y18781, Y18783, Y18786, Y18789, Y18790	
M7883, Z4994, 27 SNPs	FTDNA-B8903 (Myers)
A12327, BY11732, Y11912/Z18091	
AM00580/E269/Y2426/Z2132, L159/S169, 34 SNPs	FTDNA-N9484 (Caceres)

25 SNPs	FTDNA-152975 (Melik-Shahnazarian)
L216	
PH2731, PH3048	
Y18788, Y:20295867 (G/A), Y:6388541 (C/T)	FTDNA-304515 (Khandkar)
CTS9766/FGC192, P53, Z17301/Z30499, 12 (+287) SNPs	FTDNA-279391 (Reno)
Z33757, 23 SNPs	FTDNA-496040 (Pogosyan)
PH655, PH4713, Y:13625287 (T/C)	
26 SNPs	FTDNA-176676 (Arakelyan)
PH1732, PH3425, PH3610, PH4560	
PH3575, PH4546	H2014-tur-11 (Turkish)
FGC59041, 24 SNPs	FTDNA-B19725 (Assali)
Y18441, Y18443, Y18785, Y:7604463 (A/G), Y:20307647 (G/A)	
18 SNPs	FTDNA-321884 (Pateishvili)
F4044, Y18442, Y18444, Y18774, Y18775, Y18777, Y18778, Y18779, Y18780, Y18782, Y18787, Y18791, Y18792, Y:11509677 (G/A)	
5 (+137) SNPs	FTDNA-351312 (Hellgren/Ostenson)
1 SNP	FTDNA-379015 (Markstedt/Ostenson)
FGC14590, FGC14592, FGC14593/SK2093, FGC14594, FGC39500, PF7580	
SK2094, SK2095	HGDP01301 (Yugur, China)
A9919/KMS32/ZS2430, S4813, S4815, ZS3141, 31 SNPs	FTDNA-N125449 (Schlissmann)
38 SNPs	FTDNA-B76395 (Sari)
L943, L945, FGC36742, FGC36743, FGC36744, FGC36745, FGC39471, FGC39472, FGC39473, FGC39474, FGC39475	
S1251, S1252, S1253, S1254, S1255, S1256, S1257, S1258, S1259, S1260	K2015-GS000018425-Assyr3, R2013-13750 (Assyrians, Nor_Artages_Armavir_Region)
A15857/CTS1848, FGC8075, FGC36747, FGC36748, FGC36751, FGC36753, FGC36754, FGC36755, FGC36756, FGC36758, FGC36760, FGC36764, FGC36767, FGC36771, FGC36768, L944, L946, PF3449, Z30677	
L1067/SK2079/Z81481, 18 SNPs	FTDNA-647567 (Mourad)
Z5624, Y:7864441 (C/A), Y:8584085 (G/C), Y:8632182 (G/T), Y:9297850 (A/C), Y:9316635 (G/A), Y:13148595 (G/A), Y:14732515 (A/T), Y:14751055 (C/T), Y:15259939 (T/A), Y:15574778 (T/A), Y:16025758 (C/G), Y:16025864 (A/G), Y:16056966 (T/G), Y:17048625 (T/C), Y:19252897 (G/T), Y:20084540 (T/G), Y:20765966 (A/T), Y:21197804 (T/C), Y:21731029 (T/C), Y:22197231 (G/A)	
6 SNPs	FTDNA-370966 (Derrick)
3 SNPs	FTDNA-445309 (Darrow)
FGC36759, FGC36761, FGC36762, FGC36763, FGC36766, FGC36769, FGC36770, FGC36772, FGC36773, FGC39482, FGC39486, FGC39493	
7 SNPs (+207 SNPs)	FTDNA-412222/FGC-? (Davidson)
Y:8814718 (G/C), Y:8909903 (A/C), Y:13077886 (T/A), Y:13077890 (G/A), Y:13367363 (T/C), Y:13788058 (T/C)	PGP_hu02100D (Belarus)
4 SNPs	FTDNA-55790 (Kaye)
2 SNPs	FTDNA-45475 (Silver)
Y18887, Y18688	
38 SNPs	FTDNA-247080 (Kherimyan)
A12329	
FGC22825, 43 SNPs	FTDNA-359776 (LeBlanc)
39 SNPs	FTDNA-235098 (Kurilo)
Z29813	
A16936, 26 SNPs	FTDNA-546310 (Pakhilavuni)
A5572, PF7574, PF7577, PF7578, Z29806, Z29807, Z29808, Z29809, Z29810, Z29811, Z29812, Z29814, Z29815, Z29816, Z29817, Z29818, Z29819, Z29820, Z29821, Z29822, Y:6529712 (T/G), Y:7927924 (G/T), Y:8076326 (T/C), Y:8598460 (C/G), Y:8616305 (T/C), Y:8726161 (C/T), Y:9271013 (T/A), Y:10070550 (C/T), Y:11561567 (C/T)	
Y:2123579 (C/A), Y:2815701 (G/T), Y:3832723 (C/T), Y:7064176 (G/C), Y:11121076 (T/G), Y:11135183 (A/C), Y:12407323 (G/A), Y:14411317 (T/G), Y:16944256 (A/T), Y:16977983 (G/T), Y:20928848 (C/G)	PF2013-993/PF2015-985 (Sardinian)
FGC88303, PR3869, Y28852, Y:12092848 (C/A), Y:14286730 (A/G), Y:14317675 (T/G), Y:16036105 (A/C), Y:19580471 (T/C), Y:20731397 (A/C), Y:20944127 (C/T), Y:21854358 (A/C)	PF2013-994/PF2015-986 (Sardinian)
Y19434	
A12332, A12333, A12334, A12335, A12336, CTS5881, CTS5882, FGC49970, Y:4361195 (G/A)	
FGC62507, 29 SNPs	FTDNA-? (Melik-Osipov)
CTS9108/FGC21776, PF1865, PF3974, 24 SNPs	FTDNA-N176337 (Pilaha)
F690, S21786, Y842, Y30430, Y31278, Y31279, Y31280, Y31281, Y31282, Y31283, Y31284, Y31285, Y31286, Y31287, Y31288, Y31289, Y31290, Y31291, Y31292, Y31691, Y31692, Y31693, Y31694, Y31695, Y31696, Y31697, Y31698, Y31699, Y31700, Y31701, Y31702, Y31703, Y31704, Y:3112527 (G/C), Y:11514644 (G/T), Y:20299031 (C/T), Y:20302616 (C/T), Y:20302627 (T/C), Y:20302673 (A/G) (A/G), Y:20325450 (C/T), Y:22727816 (A/T)	
E598, 4 SNPs	FTDNA-534555 (Safonov)
BY20840, Y841, Z29482	
6 SNPs	FTDNA-464064 (Safonov Va.)
E462, 5 (+337) SNPs	FTDNA-464064 (Safonov VI.)
A999, A12337, A12338, A12339, A12340, A12341, A12342, A12343, A12344, A12345, A12346, A12347, Y:19770906 (G/A)	
FGC39497, M1060, 32 SNPs	SGDP-LP6005519-DNA_F03_Armenian222 (Armenian, Armenia, born in Akhuzyan but all 4 ancestors come from Kars - now Turkey)
25 SNPs	FTDNA-283558 (Haroutinian -Tchatalian)
FGC14598, FGC14606, FGC14610, FGC14617, Y16852	
Y23999	
L639/PF2203, M104_1/P22, 30 SNPs	FTDNA-170600 (Sliman)
Y23838, Y37377	
F4346, ZS8286, 23 SNPs	FTDNA-426942 (Arakelyan)
A5443, A11983, 27 SNPs	FTDNA-614382 (Enfendzhyan)
CTS4582, M9665/PF4247/Z1595, Y37274, Y37275, Y37374, Y37375, Y37376, Y37377, Y37378, Y37379, Y37380, Y37381, Y37382, Y37383, Y37385, Y37386, Y37387, Y37388, Y37389, Y:11502901 (G/C), Y:12123021 (G/A), Y:20296875 (C/A), Y:20317937 (G/T)	
M9664/Z232, 13 SNPs	F38, Tepe Hasanlu, Northern Zagros (Iran), 971-832 cal BCE
13 SNPs	FTDNA-370505 (Molchanov)
FTDNA-633067 (Kuchin)	
FGC14585/Z2522, FGC14593, FGC14596, FGC14597, FGC14599, FGC14601, FGC14602, FGC14603, FGC14604, FGC14605, Y11410, FGC14607, FGC14608, FGC14609, FGC14612, FGC14613, FGC14615, FGC14618, FGC14620, FGC14621, FGC14622, FGC14623, FGC14624, FGC14625, FGC14626, FGC14627, FGC14628, FGC14629, FGC14630, S3793, Y17630, Y17631	
A7643, CTS10050/M10145, 6 (+337) SNPs	FTDNA-351640 (Salido)
FGC14600, FGC14611, FGC14614, FGC14616, FGC14618	
5 SNPs	PGP70_hu297562 (Belarus)
2 (+147) SNPs	FDNA-298652 (Spira)
10 (+147) SNPs	FDNA-187115 (Spier)
FGC14591, FGC14631, FGC14632, FGC14633, FGC14634, FGC14635, FGC14636 (+207) SNPs	FDNA-271988 (Radu / Goldschlager)
4 SNPs	FDNA-247984 (Spier)
Y21258/YFS515862	
5 (+297) SNPs	FDNA-301784 (Spilaver)
2 (+187) SNPs	FDNA-130203 (Stepak)
1 (+127) SNPs	FDNA-N8263 (Rutyna)
GG536/Z2106, Y12538/Z8131	
Y:15632885 (A/T)	
Z17451, 29 SNPs	FTDNA-B106909 (Frechette)
CTS1516, 39 SNPs	K2015-GS000018396-Tabas17 (Tabasarans, Dagestan_Makhachkala)
CTS2437, CTS7783, CTS8966	
FGC44943/Y20903, Z6893, ZS4177, 35 SNPs	FTDNA-170091 (Rowe)
31 SNPs	FTDNA-M9465
M6851, 33 SNPs	FTDNA-164223 (Athnaseyan)
CTS347, CTS9921, F4036, F24594, Y:19533646 (A/G)	
CTS76, CTS521, CTS563, CTS3508, CTS7312, CTS7562, CTS7693, CTS8568, CTS9226, CTS9232, CTS10258, CTS11481, CTS12026, PAGES00126, S25923	1KGP-NA18645 (Han Chinese in Beijing, China)
Y37188, Y37189, Y37190, Y37191, Y37412, Y37413, Y:19533646 (A/G), Y:6427920 (G/A)	
K393, M4419, 20 SNPs	FTDNA-609137 (Dzhaev)
FGC42921, 25 SNPs	FTDNA-623690 (Khasiev)
PH4503, PH4602, PH4902	
PH125, PH131, PH290, PH778, PH1823, PH2152, PH2654, PH3104, PH3108, PH3313, PH3440, PH3487, PH3498, PH4126, PH4304, PH4600	H2014-bhu-1953 (Bhutanes)
BY3295, FGC48387, Y18961	
30 SNPs	FTDNA-?/YF03137 (Mr.)
FGC48352, FGC48354, FGC48366, Z18598/Z43281	
Y37919, Y37955, Y37956, Y37957, Y37958, Y37959, Y37960	
FGC52573, A1413/FGC56043, ZS3955, 39 (+167) SNPs	FTDNA-242711 (Melik-Ohanjanyan)
FGC52291, 17 SNPs	FTDNA-191399 (Pogosbekov)
K465, Y:1720237 (G/A)	
Y:3990241 (A/G), Y:5638002 (G/A), Y:5659187 (G/A), Y:10101071 (T/C), Y:11687065 (G/C), Y:11910007 (T/G), Y:13222719 (G/A), Y:13392464 (C/T), Y:13948881 (G/C), Y:13955239 (C/T), Y:14997410 (G/A), Y:15755717 (G/A), Y:15984831 (C/T), Y:16807883 (C/T), Y:19310990 (A/G), Y:21048138 (T/C), Y:22239142 (C/T), Y:26410619 (G/C)	ERS256993/PF2013-992/PF2015-984 (Sardinian)
CTS1742/S3986, FGC7579/YP4440, 27 SNPs	FTDNA-M9219 (Bindakhil)
BY3296, FGC48361, Z6845	
25 SNPs	RISE397, Kapan (Armenia), 2807 cal. BP
FGC48350, FGC80611/Z43125, Y:7542839 (A/G), Y:11162412 (C/T), Y:11519496 (G/A), Y:14171373 (C/T), Y:15678296 (T/C), Y:15795284 (G/A), Y:20594204 (C/G), Y:22250414 (C/T)	FTDNA-164226 (Kassabian)
13 SNPs	FTDNA-644177 (Aisultan)
PF1956, 20 SNPs	FTDNA-E9359 (Militeilo)
CTS1843/Z2109, GG526/Z2108	
CTS310, CTS6292, L147/PF4883, 44 SNPs	I0374, Nikolaevka III, Samara River, Samara (Russia), 2800-2200 BCE
Z16501, Z24687, 50 SNPs	FTDNA-M9739 (Ali)
SK2087, Y:7876970 (A/T)	FTDNA-597274 (Guseynov)
SK2086	1KGP-NA20866 (Gujarati Indian in Houston, TX)
A12348, GG405/KMS67	HGDP00214 (Pathan, Pakistan)
	RISE524, Kapova cave (Russia), Mezhevskaya Culture
	I0438, Luzkhi I, Samara River, Samara (Russia), 3021-2635 calBCE (AA47807)
	I0370, Ishkinovka I, Eastern Orenburg, Pre-Ural steppe, Samara (Russia), 3300-2700 BCE
	I0444, Kutuluk I, Kutuluk River, Samara (Russia), 3300-2700 BCE
CTS10137/Z43775, FGC15249, ZS6183, 32 SNPs	FTDNA-527684 (Zacharatov)
A19992, L1144, Y:8012686 (C/A), Y:8145426 (A/T), Y:8363739 (G/A), Y:8788427 (G/A), Y:8914864 (G/A), Y:9210642 (C/G), Y:12740724 (C/A), Y:13381832 (T/C), Y:14331117 (G/T), Y:14385931 (T/C), Y:14619798 (A/T), Y:14986208 (G/T), Y:15081592 (G/A), Y:19430093 (T/C), Y:20278854 (C/A), Y:21090154 (A/G), Y:21842396 (A/C)	
Y705, 12 SNPs	FTDNA-442223 (Lentz)
FGC6444, 28 SNPs	FTDNA-N242316 (Vaudry)
A12349, A12350, GG425/KMS62, GG625/KMS75, GG748/KMS86, GG760/KMS88, GG796/KMS92, Y20993, Y23099	

		I0231, Ekaterinovka, Southern Steppe, Samara (Russia), 2910-2875 calBCE (Beta 392487)
		I0429, Lopatino I, Sok River, Samara (Russia), 3339-2917 calBCE (AA47804)
		I0440, Lopatino II, Sok River, Samara (Russia), 2885-2665 calBCE (Beta 392492)
	A12367/GG676, GG462/Y21707	
	28 SNPs	B2017-CrimeanTatar-2
	A12360, A12361, A12362, A12363, A12364, A12365, A12366, A12368, A12369, A12370, A12371, Y21708	
	56 SNPs	I0575, Pokrovka (Russia), 5th-2nd c. BCE
	A7553, CTS8262, FGC3087, L167, Z34322, 34 SNPs	SGDP-LP6065442-DNA_H04_Lez49 (Lezgin, Russia, Dagestanskije, Ogni, In, Dagestan)
	A12351, A12352, KMS59, KMS60, KMS61, KMS62, KMS63, KMS64, KMS65, KMS66, KMS69, KMS70, KMS71, KMS73, KMS76, KMS77, KMS78, KMS79, KMS80, KMS81, KMS83, KMS834, KMS85, KMS87, KMS89, KMS90, KMS92, KMS93, KMS94, KMS95, M4170, S17912/Z5874	FTDNA-N83705 (Al Enezi)
	3 SNPs	FTDNA-181183
	L338/S197, 4 SNPs	FTDNA-329335 (Yenikeev)
	Y14415, Y14416, Y14421, Y14423	
	Y35097, Y35098, Y35099	
	CTS3937/M9805/V2873, PF6018, Y14414, Y14420, Y14422, Y14511, Y14512, Y14513, Y14514, Y14515, Y11765142 (T/C), Y:20060513 (T/A), Y:20073666 (A/C), Y:20316183 (A/T)	C2014-SAMEA2392207 (IA Sample 21256, India, Hindu, Punjabi)
	Y16158	
	ZS1324, 27 SNPs	FTDNA-? (Eriksson)/YF09431
	Y16005	
	20 (+147) SNPs	FTDNA-N113118 (Sabot/Szabo)
	BY22850, CTS3850/Z2051, Y:9204501 (T/C), Y:11501117 (A/G), Y:13790150 (C/G), Y:15802787 (T/C), Y:16922015 (G/A), Y:20316259 (C/G)	
	18 SNPs	FTDNA-163396 (Lea)
	20 (+267) SNPs	FTDNA-26483 (Krekiow)
	A5921, M64/PAGES00044, Y20971, Y20972, Y20973, Y20974, Y20975, Y20976, Y20977, Y20978, Y21872, Y21873, Y21874, Y21875, Y21876, Y22211, Y23023	
	Y22199, Y22200, Y22201, Y22202, Y22204, Y22205, Y22206, Y22207, Y22208, Y22209, Y22210, Y22212, Y22215, Y22422, Y22423, Y22424, Y22425, Y22426, Y22427, Y22428, Y22429	
	1+(97) SNPs	FTDNA-257842/YSEQ-85 (Bork)
	157 SNPs	FTDNA-305697 (Rose)
	Y22198, Y22203, Y22213, Y22214, Y23022, Y34526, ZS2159	
	A10151, Y36400, Y36401, Y36944, Y36945, Y36946, Y36947	
	1 SNP	FTDNA-313306 (Grant)
	5 SNPs	FTDNA-521313 (Grant)
	Y34195, Y34196, Y34521, Y34522, Y34523, Y34524, Y34525	FTDNA-38400 (Page / Grant)
	3 SNPs	FTDNA-B164801 (Robbins)
	3 SNPs	FTDNA-74013 (Robbins)
	5 SNPs	FTDNA-436428 (Robbins)
	CTS7822/Z2110, S12480, S17864	
	PF4655/YSC0000074, S6157, S6165, S8933	BDNA-595
	CTS3849/S4628.1, CTS7206, L128/PF3499, PF4655/YSC0000074, S4628, S4629	BDNA-1996
	SK2096	BDNA-593, HGDP00234 (Pathan, Pakistan)
	L759/YSC0000295/Z2835, PF5673, 34 SNPs	FTDNA-147232 (Miller)
	CTS689, S11762, Y36455, Y:20302784 (T/C)	
	CTS7070, CTS8375, CTS11001/M11666, FGC30409/ZS5862, L654	1KGP-HG01277 (Colombian in Medellin, Colombia)
	B7, CTS1549, FGC24732, FGC40556	K2015-GS000021456-Israel43, R2013-16881 (Kurdistan-Jews, Zakho)
	BZ4109, Z31930, Z39051, 35 SNPs	FTDNA-546295 (Tatulli)
	Z28823, Z28824, Z28825, Z28826, Z28827, Z28828, Z28829, Z28830, Z28831, Z28832, Z28833, Z28834, Z28835, Z28836, Y38079, Y38080, Y38082, Z28833, Y:4140472 (G/A), Y:6532986 (G/T), Y:10214661 (G/A)	
	Y:9187534 (T/C), Y:11839984 (C/T), Y:15810506 (G/A), Y:16026241 (C/T), Y:19498763 (C/T), Y:20303705 (C/T), Y:20313620 (G/T), Y:26649215 (T/G)	PF2013-995/PF2015-987 (Sardinian)
	Y:8799999 (C/A), Y:10013864 (A/G), Y:10071880 (G/A), Y:11738681 (G/A), Y:12789167 (T/G), Y:13360111 (C/G), Y:13888167 (C/T), Y:19910782 (A/G), Y:20132332 (G/T)	PF2013-996/PF2015-988 (Sardinian)
	FGC24408	
	CTS10136, M9063/PF4522/YSC0001322, 32 SNPs	FTDNA-M11086 (Badow)
	BY1091, FGC24412, FGC24413, FGC24414, FGC24419, FGC24424, FGC24428, FGC24430, FGC24436, FGC24437, FGC24444, FGC24446, FGC24447, SK2097, Y:7083985 (A/G), Y:16648364 (C/T)	
	SK2098	HGDP00511 (French, France)
	FGC24406, FGC24409, FGC24419	
	21 SNPs	FTDNA-272057 (Barnum/Winterowd)
	FGC24379, FGC24380, FGC24381, FGC24382, FGC24383, FGC24384, FGC24385, FGC24386, FGC24387, FGC24388, FGC24389, FGC24390, FGC24391, FGC24392, FGC24393, FGC24394, FGC24395, FGC24396, FGC24397, FGC24398, FGC24399, FGC24400, FGC24401, FGC24402, FGC24403, FGC24404, FGC24405, FGC24406, FGC24407, FGC24410, FGC24411, FGC24415, FGC24416, FGC24417, FGC24418, FGC24419, FGC24420, FGC24421, FGC24422, FGC24423, FGC24425, FGC24426, FGC24427, FGC24429, FGC24431, FGC24432, FGC24433, FGC24434, FGC24435, FGC24438, FGC24439, FGC24440, FGC24441, FGC24442, FGC24443, FGC24445, FGC24448, FGC24449, FGC24450, FGC24451, FGC24452, M919	
	Z13591, 12 SNPs	FTDNA-H1614/FGC-LDHP (Tognoni)
	Y:8238051 (G/A), Y:8239949 (C/T)	FTDNA-367046 (Cinque)
	31 SNPs	FTDNA-? (Massie)
	PH317, PH510, PH590, PH925, PH2761, PH3593, PH4656, PR5010	
	52 SNPs	FTDNA-N112116 (Nochev)
	PH546, PH831, PH2251, PH2309, PH2812, PH3036, PH4235, PH4416, PH4907, PH5285, PH5285, Y:20508251 (T/C)	H2014-spa-40 (Spanish)
	CTS7556, FGC29295, FGC29296, Y18960	
	FGC29330	
	FGC29294, FGC29295, FGC29296, FGC29297, FGC29298, FGC29299, FGC29300, FGC29301, FGC29302, FGC29303, FGC29304, FGC29305, FGC29306, FGC29307, FGC29308, FGC29309, FGC29310, FGC29311, FGC29312, FGC29313, FGC29314, FGC29315, FGC29316, FGC29317, FGC29318, FGC29319/Y7829, FGC29320, FGC29321, FGC29322, FGC29323, FGC29324, FGC29325, FGC29326, FGC29327, FGC29328, FGC29329, FGC29331, FGC29332, FGC29333, FGC29334, FGC29335, FGC29336, FGC29337, FGC29338, FGC29339, FGC29340, FGC29341, FGC29342, FGC29343, FGC29344, FGC29345, FGC29346, FGC29347, FGC29348, FGC29349, FGC29350, FGC29351, FGC29352, FGC29353, FGC29354, FGC29355, FGC29356, FGC29357, FGC29358, FGC29359, FGC29360	FTDNA-M3692/FGC-SDDQH (B.A.)
	Y20604, Y20612, Y:20109174 (G/A)	
	F1897, FGC9650, Z15868, ZS10717	FTDNA-256172 (Fahad)
	BY3299, Y20601, Y20602, Y20603, Y20606, Y20607, Y20608, Y20609, Y20610, Y20611, Y20612, Y20613, Y20614, Y20615, Y20616, Y20619, Y20344, Y:4832833 (G/A), Y:11529229 (T/G), Y:17799450 (C/G), 20296255 (A/G)	
	Y:10008684 (G/A), Y:11762931 (G/C), Y:20046037 (C/T)	
	8 SNPs	FTDNA-47778 (Locke)
	8 SNPs	FTDNA-405671 (Ginn)
	BY3298, Y20605, Y20617, Y20618, Y20345, Y:9656153 (T/C)	
	Y:8886618 (C/G), Y:9174705 (T/C), Y:12408737 (A/G), Y:12580823 (T/G), Y:12835889 (G/A), Y:143833212 (G/T), Y:15499505 (G/T), Y:16060060 (C/G), Y:19891836 (G/A), Y:20263272 (G/C), Y:21316377 (G/A)	
	3 SNPs	FTDNA-683118 (Seymour)
	Y29085	FTDNA-108347 (Seymour)
	9 SNPs (+127) SNPs	FTDNA-16910 (Robinson)
	CTS4923, Z17393, 10 SNPs	FTDNA-247019 (Ware)
	GG649/Y5592	
	A5802, S20279, Z14766, 32 (+57) SNPs	FTDNA-B68231 (Peterson)
	BY20202, CTS1450/GG424, CTS9219/GG689, GG506/Y5589, GG574/FGC9480/Y5590, GG581/Y3099/Y5591, GG740/Y5593, GG784, GG838/Y5594	
	L25/PFS345/S399	N/A
	CTS9940/V3843	N/A
	PF3928	N/A
	AM00719/F2610	N/A
	CTS1039	N/A
	CTS2791/S2910	N/A
	CTS8563	N/A
	S583, S3023, M8990/S3846, S8889, S19777, M8676/V244	BDNA-588
	PF2642	BDNA-589
	PF4655/YSC0000074	BDNA-1839
	CTS4122, PF4655/YSC0000074, S13125	BDNA-592
	SK2082, SK2083, SK2084, SK2085	HGDP00515 (French, France)
	PH61, PH442, PH1192, PH2053, PH4652, PH4946	H2014-eng-O15 (English)
	32 SNPs	B2017-Moksha/Mordvinian-1
	28 SNPs	FTDNA-E12057 (Schmidt)
	Y18959	
	M3815, Y8051/Z10573, Y:2933431 (G/A), Y:6483809 (A/C), Y:7030586 (T/C), Y:8683402 (G/A), Y:9200859 (A/G), Y:9538107 (C/G), Y:13394381 (T/C), Y:14485722 (G/A), Y:15236248 (A/C), Y:15581017 (A/G), Y:16675146 (A/C), Y:16677312 (G/T), Y:17427538 (C/T), Y:19845209 (G/A), Y:20304242 (C/A), Y:20325423 (T/A), Y:20359159 (T/A), Y:21373185 (A/G), Y:21373194 (G/C), Y:22948995 (G/C), Y:23629874 (C/A), Y:24172955 (G/A)	
	8 SNPs	FTDNA-B7954 (Tillet)
	CTS2289/Z1387, FGC37262, 3 SNPs	FTDNA-B30466 (Stamm)
	A1777/BYE11/Y10789, Y18958	
	PF7586, Y:5297063 (G/T), Y:6786948 (C/G), Y:7003234 (A/C), Y:7817041 (A/C), Y:8651098 (G/A), Y:8922742 (C/G), Y:10240430 (A/T), Y:12085943 (G/A), Y:12296327 (T/C), Y:13089512 (A/T), Y:14554831 (T/G), Y:15732708 (T/G), Y:15813672 (C/T), Y:16279484 (T/C), Y:17362882 (A/G), Y:19446790 (C/T), Y:20649656 (G/C), Y:21451026 (T/G)	ERS256992/PF2013-991/PF2015-983 (Sardinian)
	Y30192, Y30193, Y30714, Y30715, Y30716, Y30717, Y33207, Y32844, YP1437	
	16 (+197) SNPs	FTDNA-546864 (Barry)
	A172/ZS3079, Y16970, Y32843, Y32844, Y32845, Y32846, Y33203, Y33204, Y33205, Y33206, Y:20301313 (G/A)	
	16 (+487) SNPs	FTDNA-N66406 (Seguer)
	CTS5609, 6 SNPs	FTDNA-N126164 (Sabat)
	Y23373, Y23374, Y23375	
	M4099, 19 SNPs	FTDNA-N24004 (Sands)
	CTS883/Z2705, PH544, PH970, PH2535, PH2903, Y32147, Y32148, Y32149, Y32150, Y33199, Y33201, Y:20261803 (G/A), Y:20311479 (G/C)	
	A3260/PH119/YP2464, PH608, PH801, PH881, PH1794, PH4853	H2014-ser-7 (Serbian)
	Y33200	
	F590, L950/M11042, 7 SNPs	FTDNA-479263 (Agovic)
	10 (+637) SNPs	FTDNA-314859 (Kumbarov)
	Y:3148074 (C/G)	
	6 SNPs	FTDNA-629375 (Binaj)
	PF6307-, 7 SNPs	FTDNA-398627 (Surghie)
	Y:8644051 (G/C), Y:9643834 (G/T), Y:11497775 (G/A), Y:17359196 (G/T), Y:20281207 (G/T), Y:20318147 (G/A)	
	CTS10177, 5 SNPs	FTDNA-? (Valine)
	Z17069, 3 SNPs	FTDNA-106619 (Maciel / Bettencourt)
	Y37280	

A14927/M9061/S12552/Z7200/ZS10398a, A14928/M9062/S12553/Z7201/ZS10398b, 5 SNPs	FTDNA-226788 (Iliev)
9 SNPs	FTDNA-634307 (MIHAILOVITCH)
GG763/Y5887	
Y5886, Y5888, Y:14816587 (G/T)	
L150, 2!	FTDNA-N37658, FTDNA-N37809 (Romitti)
FGC17150/ZS1610, 22 SNPs	FTDNA-331351 (Velev)
Y:8424612 (GA)	
CTS7959, CTS9230, CTS9906, CTS11767	1KGP-HG01515 (Iberian populations in Spain)
PR4041, 16 SNPs	FTDNA-344830 (Strassner)
A5705, Y22219, Y22220, Y22221, Y22222, Y22223, Y22224, Y22225, Y22226, Y22227, Y22228, Y22265, Y22266, Y22267, Y22268, Y22269, Y22270, Y22271, Y22272, Y22273, Y22274, Y22275, Y22276, Y:4202411 (C/G), Y:5859600 (T/C), Y:6494775 (G/A), Y:20309851 (G/T), Y:20327309 (T/G), Y:23257712 (A/G)	
Y5253, 10 (+267) SNPs	FTDNA-N139072 (Uzunov)
13 (+167) SNPs	FTDNA-315636 (Maev)
FGC43606, FGC43607, FGC43609, GG402/Y14302, GG418/Y11810, GG434/V1470, GG535/PH963/Y11812, GG596/PH147/Y14300, GG608/PH2302/Y14304, GG636/Y14301, GG651/PH3382/Y14305, GG721/PH4505/V4124, GG727, GG742/Y11814, GG744/Y11816, GG758/PH4996/Y11815, GG762/Y14309, GG806/PH5142/Y14303, GG822/Y11817, Y11813, Y14078, Y14079, Y14308	
PH82, PH331, PH2318, PH2465	FTDNA-160064/H2014-hun-3 (Hungarian)
GG469/M11143, GG475, GG590/YP3933, GG605	
F15, 11 SNPs	FTDNA-545283 (Andras)
GG438, GG487, GG496, GG589, GG693	
10 SNPs	B2017-Ukrainian-2
F4765/Y3939, 7 SNPs	FTDNA-502383 (Vujtek)
CTS96237, F2712, 12 SNPs	FTDNA-N128191 (Ott.)
BY593/CG578/PH1723/V2986, GG630/PH2789/Y14307, Y11811	
15 SNPs	B2017-Ukrainian-1
V1242, V1243, V3522	T2015-S64 (Europe)
PH1248, PH1965	H2014-bav-56 (Bavarian)
	PGP245_hu734BD6 (United States)
12 SNPs	FTDNA-N112689 (Illinov)
9 SNPs	FTDNA-277816 (Levchenko)
15 SNPs	FTDNA-11746 (Probasco)
M368/PF5458, 8 SNPs	FTDNA-357593 (Pascariu)
FGC21891/ZS3149, 8 SNPs	FTDNA-399697 (Bosinceanu)
S18968, 12 SNPs	FTDNA-32783 (Hrcirnik)
FGC43589, FGC43596, FGC43602, FGC43613, FGC43616	
10 (+347) SNPs	FGC-ESG6R
Y14306	FTDNA-485752 (Cimbri)
ZS2306, 14 SNPs	FTDNA-295890 (Buczowski)
M684, 6 SNPs	FTDNA-99230 (Breske)
BY250, BY251	
CTS8749	FTDNA-300134
M11773/PF809	FTDNA-289628
Z6003, 24 SNPs	FTDNA-? (Ramsden)
CTS9623, 33 SNPs	FTDNA-359183 (Sawyer)
BY3717/Y19469	
CTS4122, FGC10789/Y3048, FGC35458, PF4766, PR5990, 30 SNPs	FTDNA-310381 (Fagundes)
BY20206, BY20207, BY20208, BY20209, BY20210, BY20211, BY20212, BY20213, BY20214, BY20215, BY20216, FGC41527, FGC41536, FGC41542, M2687, M8347	
FGC415287, FGC415397, FGC415437, FGC415447, 8 SNPs	FTDNA-332364 (Rivkin)
7 SNPs	FTDNA-90135 (Sanchez)
BY9280/FGC51649, BY20227, BY20228, BY20229, BY20230, Y32821, Y32822, Y32823, Y32824, Y32825, Y32826, Y32827, Y32828, Y32829, Y32830, Y32831, Y32832, Y32833, Y32834, Y32835, Y32836, Y32837, Y32838, Y32839, Y32840, Y32841, Y32842, Y32851, Y32852, Y32853, Y32854, Y32855, Y32856, Y32857, Z19785	
7 SNPs	FTDNA-N58439 (Thornton)
7 SNPs	FTDNA-256220 (Thornton)
BY20203, BY20204, BY20205, A7596, Y29917, Y29918, Y29919, Y29920, Y29921, Y29922, Y29923, Y29924, Y29925, Y29926, Y29927, Y29928, Y29929, Y30195, Y30196, Y30197, Y30198, Y30199, Y30200, ZS5429, Y:17798652 (A/G)	
9 (+157) SNPs	FTDNA-N118997 (Strasz)
7 (+167) SNPs	FTDNA-N29965 (Sobol)
FGC41517, Y23493, Y37594	
77 SNPs	SGDP-LP6005592-DNA_E02_ND15865 (Polish, Poland, Cell_line_repository_sampling_location_unknown)
Y:11417270 (C/T)	
34 SNPs	FTDNA-E15479 (De La Fayette)
F21917, 26 SNPs	FTDNA-539925
Y28788	
13 SNPs	FTDNA-602818 (Hart)
Y28786	
CTS5621, CTS10050/M10145, FGC29296, Z1424, 29 SNPs	PGP157_huC92BC9 (United States)
BY20231, BY20233, Y28635, Y28636, Y28637, Y28638, Y28639, Y28640, Y28641, Y28642, Y28643, Y28644, Y28645, Y28646, Y28647, Y28648, Y28649, Y28650, Y28651, Y28652, Y28653, Y28654, Y28655, Y28656, Y28657, Y28658, Y28659, Y28660, Y28661, Y28662, Y28663, Y28664, Y28665, Y28666, Y28667, Y28668, Y28669, Y28670, Y28671, Y28672, Y28673, Y28674, Y28675, Y28676, Y28677, Y28678, Y28679, Y28680, Y28681, Y28682, Y28683	
10 (+267) SNPs	FTDNA-217513 (Mercer)
BY20232	
3 SNPs	FTDNA-242253 (Kulbeth)
5 SNPs	FTDNA-167537 (Mercer)
BY20217, BY20218, BY20219, BY20220, BY20221, BY20222, BY20223	
BY926/Y14725, BZ95/Z36006, 19 SNPs	FTDNA-B15088 (Cummons)
AM00580/E269/Y2426/Z6132	
23 SNPs	FTDNA-164180 (Blair)
A18095, FGC67934, 27 SNPs	FTDNA-328309 (Balch)
BY20224, BY20225, BY20226, Y5972/Z59232, Y19752, Y19971, Y19972, Y19973, Y19974, Y19975, Y34344	
22 SNPs	FTDNA-225853 (Holtet)
24 SNPs	FTDNA-271283 (Perry)
BY25533, BY25534, BY25535, BY25536, BY25537, BY25538, BY25539, BY25540, BY25541, Y37249, Y37250, Y37251, Y37252, Y37253, Y37254, Y37255, Y37256, Y37257, Y37433, Y37434, Y37435, Y37444, Y37445	
	FTDNA-583289 (Cumbo)
	FTDNA-639945 (Cumbo)
BY817/Y16140, BY1279/Y15983, BY1432/Y16141, Y15982, Y16142, Y16148, Y16149	
YP3938, Y:7147035 (C/T), Y:8564391 (G/A), Y:8780809 (T/C), Y:10197754 (C/T), Y:11683831 (C/T), Y:11798779 (A/T), Y:12074281 (C/A), Y:17343171 (T/C), Y:18878562 (T/G), Y:19578449 (A/G), Y:20574076 (A/G), Y:21116166 (C/T), Y:21611317 (A/C), Y:22727384 (A/C), Y:26463845 (T/G), Y:26463851 (T/C), Y:26642933 (T/G)	
3(+257) SNPs	FTDNA-145692 (Earhart)
3 SNPs	FTDNA-428329 (Ehrhart)
FGC21889/M9350, 17 SNPs	FTDNA-82745 (Peed)
BY20244, BY20245, BY20246, BY20247, BY20248, BY20249/FGC70062, BY20250, BY20251, BY20252, BY20253, BY20254, BY20255, BY20256, BY20257, BY20258, BY20259, BY20260, BY20261, BY20262, BY20263, BY20264, BY20265, BY20266/F23307, FGC35684	
2 SNPs	FTDNA-618720 (Baughner F.)
4 SNPs	FTDNA-203564 (Baughner)
Y16145	
CTS1277, 14 SNPs	FTDNA-393986 (Hadzhilimov)
S16207, Y16143, Y16144, Y16146, Y16147, Y16151, Y16150	
F686-, 16 SNPs	FTDNA-321758 (Black)
BY3287/Y17988, Y18107, Y18108, S5701, Y:9545519 (T/C)	
BY20243, Y19137, Y19417, Y19418, Y19419, Y19420, Y19421, Y19422, Y19423, Y19424, Y21291, Y21292	
FGC22152, 2 (+437) SNPs	FTDNA-197017 (Hollingsworth G.)
2 (+257) SNPs	FTDNA-13660 (Hollingsworth T.)
7 SNPs	FTDNA-573273 (Tremblay)
Y19425	
Y19426	
2 (+187) SNPs	FTDNA-35806 (Hollandsworth)
1 (+37) SNPs	FTDNA-430233 (Hollingsworth M.)
5 SNPs	FTDNA-114685 (Hollingsworth D.)
Y23517	
3 SNPs	FTDNA-? (Hollingsworth J.D.)
2 SNPs	FTDNA-571406 (Hollingsworth M.)
(267) SNPs	FTDNA-7817 (Hollingsworth J.R.)
1 (+367) SNP	FTDNA-40767 (Hollingsworth K.D.)
2 (467) SNPs	FTDNA-91246 (Hollingsworth J.I.)
JN67, 1 SNP	FTDNA-153194 (Hollingsworth J.M.)
FGC40131/Y18848, FGC59685, Y18455, Y18456, Y18457, Y18849, Y18851, Y18852, Y18853, Y18854, Y23388	
9 SNPs	FTDNA-699072 (Samoclevo)
Y18850	
7 (+207) SNPs	FTDNA-419942 (Pancheri L.)
1 (+197) SNP	FTDNA-E8385 (Bangheri)
Y28634, Y28703	
6 (+137) SNPs	FTDNA-419945 (Pancheri W.)
4 SNPs	FTDNA-521923 (Pancheri F.)
Y23386	
3 SNPs	FTDNA-539166 (Pancheri M.)
Y23387	
YP4448/Z21076, 2 (+167) SNPs	FTDNA-B3248 (Pancheri E.)
3 (437) SNPs	FTDNA-458139 (Pancheri C.)
L51/M412/PF6536/S167/GG468, CTS10373/FGC39/PF6537, PF6414, PF6535, CTS8595/YSC0001291, FGC10152/Y109, E207/Y410/GG528	
PF7589/Z2118, CTS7153/Z2119, Z2111?, Z2112?, Z2113, Z2114?, CTS5981/S1157/Z2115, Z2117	
CTS310, F552, FGC28026, FGC31995, 43 SNPs	FTDNA-46468 (Ozkubliay)
PF1953, L112, PF6512-, M10071, S819, 69 SNPs	FTDNA-N51805 (Arrwine)
FGC38687, SK1562, Z35128, 35 SNPs	FTDNA-319459 (Boatwright)
BY11990, BY11991	
E1200, F3195/M5532/PF1806, PH1203, 27 SNPs	FTDNA-203417 (Zinck)

Y:7440379 (G/C), Y:7545782 (T/C), Y:8738535 (C/G), Y:9281918 (T/C), Y:10194457 (T/C), Y:11505330 (G/T), Y:11681055 (T/C), Y:12016290 (T/C), Y:13116332 (C/T), Y:13326029 (A/G), Y:13357898 (A/C), Y:14685930 (G/A), Y:14978461 (G/A), Y:14998848 (A/T), Y:15053973 (G/C), Y:16620567 (C/T), Y:18951959 (C/T), Y:18978541 (A/G), Y:19356889 (C/T), Y:21394483 (T/C), Y:21962953 (T/C)	
F1498/M5430/PF1428, 18 SNPs	FTDNA-B131858 (Collins)
37 (+257) SNPs	FTDNA-B60229 (Collins)
PH1214/Z29840, Z29837, Z29838, Z29839, Z29841, Z29842, Z29843, Z29844, Z29845, Z29846, Z29847, Z29848, BY11992, BY11993, BY11994, BY11995, BY11996, BY11997	PF2013-999/PF2015-991 (Sardinian)
FGC10481, Y20252, Z36272, Y:7784435 (C/T), Y:8200637 (A/G), Y:12464255 (A/C), Y:13401748 (C/G), Y:14330505 (T/C), Y:15512873 (G/A), Y:15821254 (A/G), Y:16645927 (C/T), Y:17008704 (A/G), Y:19159001 (C/G), Y:20781417 (T/C), Y:21480600 (T/C)	PF2013-998/PF2015-990 (Sardinian)
CTS10379/Z21167	
Z21141	1KGP-NA20537 (Toscani in Italia)
CTS2484, CTS3027, CTS5940, F4140/S6766/M7448, V2387/Y5141, Y5142, Y5143, Y5144, Y5145, Y5146, Y5147, Y5148, Y5149	T2015-S54 (Europe)
V2473, V2930	1KGP-NA20785 (Toscani in Italia)
CTS6397, FGC18761/Y5966, Y37283, Y37351, Y37352, Y37353, Y37354, Y37355	
CTS3850/Z2051, Z16219, 11 SNPs	FTDNA-38473 (Lee)
BY875, FGC57981, S17912/ZS874, 9 (+177) SNPs	FTDNA-216052 (Brewerton)
CTS6889/S1161, FGC241467, Z21207	BDNA-584
S1260, S3282, S583, S3023, S8889, S19777, V244	BDNA-591
PH349, PH454, PH586, PH758, PH1272, PH2979, PH2981, PH4111, PH4390, PH4815, PH4828	H2014-hun-33 (Hungarian)
PH105, PH143/Z44372, PH419, PH520, PH720, PH796, PH979, PH1072, PH1548, PH1675, PH2655, PH2964, PH3235, PH3322, PH3360, PH3735, PH3819, PH4335, PH4998, PH5319, PH5380, PR481	H2014-spa-26u (Spanish)
FGC28452/Y6550, SK818, M2974/Z4297, PF3661/V2111, 33 SNPs	FTDNA-541293 (Van der Elst)
BY11998	
Z2001, 43 SNPs	FTDNA-231206 (Cornwell)
CTS3178, 31 SNPs	FTDNA-306154 (Marsh)
FGC1252/Y11820, S1141, CTS67647	
FGC24138	
S110037	
FGC12522, FGC12524, FGC12525, FGC12526, FGC12527, FGC12528, FGC12531, FGC12533, FGC12534, FGC12535, FGC12536, FGC12537, FGC12538, FGC12539, FGC12540, FGC12541, FGC12542, FGC12543, FGC12544, FGC12545, FGC12546, FGC12547, FGC12548, L18	FTDNA-67450 (Malysz/Schumacher)
S583, S3023, S8889, S19777, V244	BDNA-587
FGC24158, FGC241397	
FGC24107	
PF36437, P37/PF4004, FGC20497, 28 SNPs	FTDNA-286267 (Axel)
FGC6800/Z12353, FGC30070/Y11532, FGC43100, GG384/M5820/PF1907, PF2542, Y:5317714 (G/T), Y:7295578 (T/A), Y:7713638 (C/T), Y:7868074 (C/A), Y:8466957 (A/G), Y:12302222 (G/A), Y:12540363 (C/A), Y:12921393 (C/T), Y:13138723 (T/A), Y:14086881 (T/C), Y:14383116 (T/C), Y:15188612 (A/G), Y:15192738 (A/G), Y:15325017 (A/G), Y:15768846 (T/C), Y:15911478 (G/A), Y:15927322 (C/T), Y:19078156 (T/C), Y:19481121 (T/C), Y:20360067 (T/C), Y:20408896 (G/T), Y:20464232 (T/C), Y:20762765 (T/C), Y:21165081 (G/C)	
M11834/PF38057, 35 SNPs	FTDNA-427434 (Botkin)
5 SNPs	FTDNA-252171 (Sipe)
BY11999, BY12000, BY12001, BY12002, BY12003, BY12004, BY12005, BY12006, BY12007, BY12008, BY12009, BY12010, BY12011, BY12012, BY12013, BY12014, BY12015, BY12016, BY12017, BY12018, BY12019, BY12020, BY12021, BY12022, BY12024	
3 SNPs	FTDNA-172257 (Mackey)
4 SNPs	FTDNA-148406 (Finney)
BY12023	
5 SNPs	FTDNA-356816 (Henderson)
2 SNPs	FTDNA-? (Johnston)
A5922	
A753, 25 SNPs	FTDNA-317656 (Strozier)
A4366, FGC28378, 38 SNPs	FTDNA-412031 (Ditman)
CTS9108, K317, 21 SNPs	FTDNA-496604 (Brown)
BY12025, BY12026, BY12027, BY12028, BY12029, BY12030, BY12031, BY12032, BY12033, BY12034, BY12035, BY12036, BY12037, BY12038, BY12039, BY12040, BY12041, BY12042, BY12043, BY12044, BY12045, BY12046, BY12047	
CTS11840, PF3643, 5 SNPs	FTDNA-? (Vettoretto G)
4 SNPs	FTDNA-? (Vettoretto M)
CTS11824/PF7592, A613/FGC19599, CTS11859	
FGC24694, S1142, S1143, S1144, S1145, S1146, S1147, S1148, S1149, S1150, S1151, S1152, S1153, S1154, S1155, S1162, S1167, S1170, S1171, S1174, S1177, S1179, S1180	
BY14210, BY14211, BY14212, BY14213, BY14214, BY14215, BY14216, BY14217, BY14218	PGP77_hu470099 (United States)
16 SNPs	FTDNA-397522 (Tate)
BY21400, BY21401, BY21402, FGC20226/Z24388	
A2246, F8520/FGC16203/Y8816, M9063/PF4522/YSC0001322, Z16219, Z30668, ZS11116, 22 SNPs	FTDNA-489851 (White)
11 SNPs	FTDNA-597666 (Paris)
CTS6192, CTS7416, CTS8679, CTS11497, BY11300/Y23198, Y23483, Y23484, Y23485, Y23486, Y23487, Y23488, Y23489, Y23490, Y31847, Y31849, Y31850, Y31851, Y22056, Y:20110341 (C/T), Y:22150443 (A/T), Y:23189631 (G/A)	
Y31846, Y31848	1KGP-HG01066 (Puerto Rican in Puerto Rico)
2 SNPs	FTDNA-245408 (Teixeira)
FGC22149/PF5498, 8 SNPs	FTDNA-469975 (D. R. C. / Casanova)
BY12048, BY12049, BY12050, BY12051, BY12052	
Y:6236829 (G/A), Y:12305732 (T/C), Y:15763594 (A/T), Y:16057794 (A/G), Y:17609490 (G/A), Y:19179894 (C/A), Y:20364201 (C/T)	
2 SNPs	FTDNA-449895 (Hay)
2 SNPs	FTDNA-B3775 (Kettering)
5 SNPs	FTDNA-372485 (Wilkins)
Y16630, Y16631, Y16632, Y16633, Y16634, Y16635, Y16636, Y16637, Y16638, Y16639, Y16640, Y16641	
Y:8699816 (G/A), Y:9961334 (A/C), Y:11692503 (A/G), Y:11696163 (G/T), Y:13554123 (G/A), Y:14714362 (G/A), Y:14727788 (G/A), Y:15403716 (A/C), Y:26599770 (T/C)	
17 SNPs	FTDNA-N124229 (Amundson/Knudsen)
CTS10137/Z43775, CTS11840, 12 SNPs	FTDNA-568307 (Belton)
P15/PF3112, SK646/Y12712, Y5661/Z20180, Z17159, BY11781/BY12053, BY11292/BY12054, BY11293/BY12055, BY12056, BY11298/BY12057, BY11304/BY12058, BY12059, BY12060, BY12061, BY12062, BY12063, BY12064, BY12065, BY12066, BY12067, BY12068, BY12069, BY12070, BY12071, BY12072, BY12073, FGC46883	
S3846	BDNA-585
11 (+337) SNPs	BDNA-586
F4140, PF3673, 7 SNPs	FTDNA-273193 (Burns)
Y:23161486 (A/T)	FTDNA-? (Greenlaw)
4 SNPs	FTDNA-363349 (Mahood)
7 SNPs	FTDNA-257096 (Eagleton)
BY12074, BY12075, BY12076, BY12077, BY12078, BY12079	
CTS8141, ZS1764/YP519/YP1098, 7 SNPs	FTDNA-221412 (Scott)
8 SNPs	FTDNA-426379 (Hughel)
A614/FGC19605, A626/FGC19611, A638/FGC19623	
CTS138, PF1857, PF4766, 40 SNPs	FTDNA-223671 (Berry)
FGC43553, FGC48859, FGC48861, PR727	
CTS9108/FGC21776, Z13945, F3464, 29 SNPs	FTDNA-307351 (Hendricks)
CTS9609, PF3805, PF810/S1984, 21 SNPs	FTDNA-87721 (Showalter)
PF7590, BY11782/Y21240, BY11306/Y21241, BY11307/Y21242, Y21243, Y21244, Y21245, Y21246, BY12080, BY12081?	
Z26601, 18 SNPs	FTDNA-360917 (Carbotti)
FGC4842, PF7588, Y:8884812 (C/T), Y:7115886 (C/T), Y:8011104 (A/G), Y:8257130 (A/C), Y:12083651 (T/A), Y:12565309 (A/G), Y:14706827 (A/T), Y:16944157 (A/G), Y:20303460 (C/A), Y:20384257 (G/A)	ERS256998/PF2013-997/PF2015-989 (Sardinian)
A605/FGC19600, A607/FGC19601, A610/FGC19602, A611/FGC19603, A612/FGC19604, A622/FGC19607, A623/FGC19608, A624/FGC19609, A627/FGC19612, A628/FGC19613, A629/FGC19614, A630/FGC19615, A631/FGC19616, A632/FGC19617, A633/FGC19618, A634/FGC19619, A635/FGC19620, A637/FGC19624, A638/FGC19626, A639/FGC19627, A640/FGC19628, A641/FGC19629, A642/FGC19629, FGC19606, FGC19625, BY12082	
4 SNPs	FTDNA-27391 (Holcombe)
5 SNPs	FTDNA-115886 (Westbrook)
FGC796/Y101/Z8159, PF6416, PF5856, PF6540/YSC0000082, L52/PF6541, L151/PF6542, PF6543/S1159/YSC0000191, CTS7650/FGC44/PF6544/S1164, PF6538, L11/PF6539/S127, P310/PF6546/S129, CTS10353/S1175/YSC0001249, P311/PF6545/S128	
P312/PF6547/S116, CTS12684/PF6548/Z1904	
U106/S21/M405	
FGC37082, FGC37097, FGC37100, FGC37104, FGC37107, FGC37112, FGC37115, A8054, A8051, A8052, FGC37093, A8053, FGC37109	
Y22667, Z2396, 27 SNPs	FTDNA-B69656 (Hale)
FGC57291, FGC37083, FGC37108	
21 SNPs	FTDNA-N197211 (Brusewitz)
BY25256, FGC37084, FGC37085, FGC37086, FGC37088, FGC37089, FGC37090, FGC37092, FGC37094, FGC37095, FGC37096, FGC37097, FGC37098, FGC37103, FGC37105, FGC37110, FGC37113, FGC37114, FGC37116, Y7514, BY11668, BY11669, BY11670, BY11671, FGC57272	
Z8432, 10 (+187) SNPs	FTDNA-414310 (Bryson)
CTS11227, 2 SNPs	FTDNA-421250 (Law)
A8055, A8056, A8057, A8058, A8059, A8060, A8061, A8062, A8063, A8064, A8065, A8066, A8067, A8068, A8069, Y24030, BY11667/FGC51305/Y24029, BY11672/Y24027, FGC51303, FGC51304, FGC51304/Y24028, FGC51310	
A15613, A15786, 2 SNPs	FTDNA-? (Sinclair U.J.)
1 SNP	FTDNA-44530 (Sinclair)
CTS9437, FGC8075, 6 SNPs	FTDNA-336942 (St. Clair)
CTS430, 6 SNPs	FTDNA-262960 (Sinclair)
1 SNP	FTDNA-216606 (Wilson)
BY11673/FGC51001, BY11674/FGC51002, BY11675, FGC51308, FGC51000, FGC51306, FGC51309	
3 (+527) SNPs	FTDNA-B1201 (Forrester)
FGC51304, FGC51307	
2 SNP	FTDNA-? (Forrester)
	FTDNA-36838 (Forrester)
S1194	
PF4655	BDNA-1944
CTS7206	BDNA-570
A8039	
ZS10202, S4631/Z16218, A9521, M10404, 27 SNPs	FTDNA-480299 (Heatherington)
BY14091, Z11280, Y:3002115 (G/T), Y:7846303 (T/A), Y:7914706 (G/A), Y:8363669 (A/G), Y:8712494 (C/T), Y:8748435 (G/C), Y:8979027 (A/G), Y:9129820 (C/T), Y:12080901 (C/A), Y:12691307 (G/A), Y:13177460 (G/A), Y:13223578 (G/A), Y:14126194 (G/A), Y:15484723 (C/T), Y:16957249 (G/A), Y:17408094 (C/A), Y:19866703 (C/T), Y:20081744 (G/T), Y:20111392 (G/T), Y:21368121 (C/A), Y:21409737 (T/C), Y:2235014 (G/T), Y:22347767 (G/T)	
8 SNPs	FTDNA-320317 (Hallissey)

	PF1109, 23 SNPs	FTDNA-348499 (Burke)
<b>A8040</b>	BY14094, BY14094, CTS56303/21553, Y:7021648 (C/T), Y:8441088 (G/A), Y:8617364 (T/C), Y:9326723 (C/T), Y:9617144 (A/G), Y:11514543 (G/T), Y:13877675 (A/G), Y:15325876 (G/A), Y:15360185 (G/A), Y:15937938 (C/T), Y:16011393 (C/T), Y:19483290 (T/C), Y:19593582 (C/G), Y:20019766 (C/T), Y:21603135 (G/T), Y:22731574 (A/T)	
	3 SNPs	FTDNA-295696 (Sloan)
	9 SNPs	FTDNA-5215 (Sloan)
<b>A8041, A8042, A8043</b>	FGC5661/PAGE500052/PF3228, PF4851/L858, Z15264, 41 SNPs	FTDNA-360054 (Van Weert)
	BY11762, BY11763, BY11764, BY11765, BY11766, BY11767, BY11768, BY11769, BY11770, BY11771, BY11772, BY11773, BY11774, BY11775, BY11776, BY11777, BY11778, A12323, A12324, A12325, A12326	
	11 SNPs	FTDNA-B12635 (Lowe)
	CTS8872/S3379, M359/P41, PR7187, F866-, 18 SNPs	FTDNA-38215 (Fox)
<b>A8045, A8046, A8047, A8048, A8049, A8050, YP554</b>		
	33 SNPs	FTDNA-44808 (James)
	BY12548	
	CTS145/M4711, 27 SNPs	FTDNA-202563 (Floyd)
	27 SNPs	FTDNA-358265 (Young)
<b>CTS4528/S1200, DF100/S1203/S6854</b>		BDNA-573
	L112, L672/S327/YSC0000038, Y2411, PF6512-, 93 SNPs	FTDNA-249898 (Marker)
	ZS7433, 33 SNPs	FTDNA-N9165 (Zohrab)
	Y36365, Y36741, Y36756, Y:3725528 (G/T)	
	40 SNPs	FTDNA-105987 (Mathiasson / Mattisson)
	30 SNPs	FTDNA-656167 (Liska)
<b>S6157, S6165, S8933</b>		BDNA-572
	S3846	BDNA-1626
<b>A8472/Y17975, A8498/Y17978, A8538/Y18099, M7851, S9977, S17624, S18067, S25757, A8531, A8546/Y17980</b>		
	S22519, Z16268, 19 SNPs	FTDNA-483864 (St. Clair / Simpler)
	BY14092, Y:8883160 (C/T), Y:8918959 (C/T), Y:9272021 (G/A), Y:12873902 (A/G), Y:13363979 (G/T), Y:20296461 (C/A)	
	17 SNPs	FTDNA-265033 (Montanari)
	14 SNPs	FTDNA-410555/YSEQ-2935 (Bergenham)
<b>S11481</b>	S17720, S19274, S19837, S19935, A8473/Y18095, A8479/Y18096, A8481/Y18097, A8485/Y17976, A8486/Y17977, A8499/Y17979, A8517/Y18098, A8535, A8464, CTS1277/M11975, A8505, A8482	
	CTS7206, PF3231, S3374, S6157, S6165, S8933	BDNA-575
	S883, S3023, S8889, S19777, V244	BDNA-576
	ZS3136, 13 SNPs	FTDNA-565241 (Lonnfors)
	S21770, A85477	
	9 SNPs	FTDNA-E19633 (Jordan)
	Y:8785529 (C/T), Y:17396782 (C/G)	
	CTS1823, 9 SNPs	FTDNA-276725 (Hendry)
	B312, 17 SNPs	PGP124_hu79F922 (United States)
	Y:6792712 (G/A), Y:19935994 (A/G)	
	6 SNPs	FTDNA-628372 (Duffield)
	Y:8567495 (C/T), Y:20662305 (T/G)	
	6 SNPs	FTDNA-363981 (Batchelor)
	10 SNPs	FTDNA-16296 (Foster)
<b>A8487</b>		
	Z18781, Z27019, 15 SNPs	FTDNA-371851 (deBrauwere)
	CTS1277/M11975I, 19 SNPs	FTDNA-N116591 (Struve)
	S22225	
	S15806, 4 SNPs	FTDNA-128054 (van der Meij)
	M8139, M8140, M8141, 4 SNPs	FTDNA-142454 (Troost)
<b>S14328</b>		
	PF2642	BDNA-569
	BY24483, BY24551, 48 SNPs	FTDNA-570282 (Murphy)
<b>A8467</b>		
	S22763, S23356	
	S883, S3023, S8889, S19777, V244	BDNA-580
	FGC3953, L654, 20 SNPs	FTDNA-N216885 (Rigby)
<b>A8493, A8534, A8545, CTS1276/M11794/PF2422, Y16483, Y16484, Y16485, Y16741, Y16742, Y16743, Y16744, Y16745, Y38139</b>		
	A4660, M3917/Z1722, 29 SNPs	FTDNA-384167 (Skinner)
	19 SNPs	FTDNA-276726 (Hinkel)
	BY14093, Y:8532883 (C/T), Y:19482738 (G/C), Y:20111104 (C/G)	
	M9703, 34 SNPs	FTDNA-471173 (Lorenzini)
	CTS11774, PF7418/Z28653, Z32500, Y:8623099 (G/C), Y:10023330 (T/A), Y:14248762 (A/T), Y:20299374 (T/C), Y:20622518 (G/C)	BDNA-578, BDNA-19046/FTDNA-221573 (Leigh)
	ZS3597, 15 SNPs	FTDNA-248663 (Crew)
	S1251, S1252, S1253, S1254, S4631/Z16218, Z21076, 37 SNPs	FTDNA-406656 (Smith)
<b>A8469</b>		
	CTS3849, S4628, S4629, S4630, S4631/Z16218, Z16219, V43, 41 SNPs	FTDNA-352440 (Wilson)
	SK1071, Y:7289299 (C/T), Y:7499347 (A/T), Y:8578533 (A/G), Y:8977396 (G/A), Y:11502137 (G/A), Y:12143068 (C/G), Y:12386617 (G/C), Y:15044627 (T/C), Y:15308892 (T/C), Y:17336198 (C/T), Y:17522294 (T/C), Y:19523754 (T/C), Y:19533821 (G/A), Y:19979570 (A/G), Y:20281201 (C/T), Y:20439161 (C/T), Y:20594266 (C/G), Y:20598213 (G/A), Y:20654964 (G/C), Y:21221455 (G/C)	
	18 SNPs	FTDNA-308632 (Coats)
	BY1746/FGC50142, Z17067, 16 SNPs	FTDNA-B12562 (Hall)
<b>ZS5789</b>		
	27 SNPs	FTDNA-128534 (Carnley)
	A1199/BY13034, BY13029/Y28597, BY13030/Y28778, FGC58753/BY13031/Z43011, BY13032/Y28781, BY13033/Y28782, BY13035, BY13036/Y28780, BY13037/S9649, BY13038, BY13039/Y28776, S13599, S23822, S26259, Y28779	
	ZS9311, 20 (+217) SNPs	FTDNA-487698 (Torbertsson)
	S10242, S16939, S20591, Y:8532730 (G/A)?, Y:16864961 (G/A)?, Y:19193722 (T/C)?, Y:20058717 (C/T)?	
	A2817/YP3187, Z18982, 10 SNPs	FTDNA-213767 (Wise)
	12 SNPs	FTDNA-4801 (Meek)
	2 SNPs	FTDNA-492363 (THOMAS)
<b>A8463, A8471, A8474, A8475, A8477, A8489, A8492, A8497, A8501, A8503, A8504, A8507, A8508, A8511, A8513, A8514, A8518, A8519, A8520, A8522, A8527, A8528, A8540, PH3858, PR1422, Y14076</b>		
	2 SNPs	FTDNA-164249 (Arnold)
	Z7081, 6 SNPs	FTDNA-40779 (Brown)
<b>S1196</b>		
	<b>S1211, S1187, S1199, A8500?</b>	
	Y:14406972 (A/G), Y:14756361 (C/A), Y:16939120 (C/A), Y:19088099 (T/C), Y:8775417 (C/T)	
	M8346, Z17852, ZS2637, 39 SNPs	FTDNA-E15287 (Schlegel)
	A6035, 33 SNPs	FTDNA-N4846 (Williams)
	33 SNPs	FTDNA-277427 (Puckering)
<b>M368/PF5458</b>		
	Y31336	
	PR6234, 38 SNPs	FTDNA-60637 (Meyer)
	Y:2896563 (T/A), Y:7311683 (C/G), Y:8060465 (A/G), Y:8700134 (T/G), Y:9181771 (A/T), Y:12087237 (G/A), Y:12142017 (A/C), Y:13236830 (A/G), Y:13752857 (G/A), Y:14873232 (G/T), Y:15949450 (C/T), Y:16650148 (G/A), Y:17001719 (A/G), Y:17222074 (C/G), Y:17378019 (G/A), Y:19125917 (G/A), Y:19133446 (T/G), Y:19179008 (C/T), Y:19202313 (C/T), Y:20308498 (C/A), Y:20308796 (C/T), Y:22303540 (C/G), Y:26385604 (C/G)	
	3 SNPs	FTDNA-533717 (Van Devender)
	Y23201, Y23202, Y23203, Y23204, Y23551, Y23552, Y23554, Y23555, Y23556, Y23558, Y23559, Y23560, Y23561, Y23562	FTDNA-308210 (Vandeventer)
	Z6132/Y2426, F4346, 12 SNPs	FTDNA-N110808 (Morrison)
	E306, Y23200, Y23201, Y23202, Y23203, Y23204, Y23551, Y23552, Y23553, Y23554, Y23555, Y23556, Y23557, Y23558, Y23559, Y23560, Y23561, Y23562, Y38141, Y38142	
	13 (+427) SNPs	FTDNA-444567 (Stewart)
	Y34201, Y34202, Y34203, Y34204, Y34205, Y34548	
	PR2573, 3 SNPs	FTDNA-610185 (McGregor)
	5 SNPs	BDNA-44322/FTDNA-197182 (Shannon)
<b>Y22442</b>		
	M4396/Y294/Z3229, M4397/Y295/Z3230, Z32063, 25 SNPs	FTDNA-319861 (Cruz)
	S1186, S1190, S1192, S1195, S1197, S1205, S1209, Y19799, Z39479, Y:7723365 (C/T), Y:8019754 (G/C), Y:8157826 (C/T), Y:9567324 (A/G), Y:14231694 (A/G), Y:14816045 (T/G), Y:19204458 (A/G), Y:19400000 (A/G), Y:21711854 (T/G)	
	8 SNPs	BDNA-42465/FTDNA-258423 (Ballard)
	S1184, S1198, S1201, 22 SNPs	PGP45_hu241DEA (United States)
	S17868, S15363, S24014, A8490, A8530, A8543	BDNA-574, BDNA-579, BDNA-581, BDNA-18629/FTDNA-299198 (Davidson)
	CTS3844, S9158	BDNA-40292/FTDNA-373624 (Tuft)
	S826	BDNA-571
	BY12072/Z41125, FGC13447, PF1242, S11555, S12808, 24 (+20) SNPs	FTDNA-B4381 (Hillanbrand)
	S11899, Z30938, Z21076, FGC8075, 30 SNPs	FTDNA-E2806 (Meyer)
	A8480/BY755, A8484/BY803, A8491/F6602, A8494, A8495, A8496, A8502/BY1108, A8506, A8512/BY1303, BY1326, A8523/BY1407, A8524, A8525/BY1442, A8526/BY1453, A8529/BY1516, A8544, FGC14435/Z18218	
	BY11796, BY11797, BY11798, BY11799, BY11800, BY11801, BY11802, BY11803, BY11804, BY11805, BY11806, BY11807, BY11808, BY11809, BY12418, M9119, Y34126, Y34127, Y34398, Y:21511944 (A/G), Y:25192901 (G/A)	
	3 SNPs	FTDNA-? (Baker L.C.)
	2 SNPs	FTDNA-B136892 (Ken)
	2 SNPs	FTDNA-2614 (Baker J.A.R.)
	2 SNPs	FTDNA-253994 (Oehler / Baker)
	A8465, A8483, S814, Z36763	
	15 SNPs	FTDNA-N24160 (Pergrem)
	Z38431, 11 SNPs	FTDNA-B5296 (Shaw)
<b>S6868, FGC23877</b>		
	Z26884, 34 SNPs	FTDNA-315493 (Harmand)
	FGC23892, FGC23894, A8470	
	FGC7851/S3031, FGC8041, FGC23878, FGC23879, FGC23880, FGC23881, FGC23882, FGC23883, FGC23884, FGC23885, FGC23886, FGC23887, FGC23888, FGC23889, FGC23890, FGC23891, FGC23892, FGC23893, FGC23894, FGC23895, FGC23896, FGC23897, FGC23898, FGC23899, FGC23900, FGC23901, FGC23902, FGC23903, FGC23904, FGC23905, FGC23906, FGC23907, FGC23908, M1705, Z29595	FTDNA-169774 (Adams)
	BY11810, S6849, S6863, Y23036, Y23037, Y23038, Y23039, Y23040, Y23041, Y23042, Y23043, Y23044, Y23045	
	CTS3849, S4628, S4629	BDNA-577, FTDNA-41989 (Dawkins)
	12 SNPs	FTDNA-515056 (Bäck)
	L669, L679, L683, L684, 15 SNPs	FTDNA-354360 (Aas)



	BY11811, BY11812, BY11813, BY11814, BY11815, BY11816, BY11817, BY11818, BY11819, BY11820, F14762, PH2837	
	M24917, 3 SNPs	FTDNA-381209 (Medley)
	2 SNPs	FTDNA-B3979 (McGuffin / Medley)
	<b>CTS7141, S17181, S18017, S23097, A8478, A8532, A8536, A8539, Z24154</b>	
	BY11821, BY11822, FGC41393	
	Z38431, 37 SNPs	FTDNA-180962 (Hansen)
	FGC41379, FGC41387, FGC41390/ZO186, Y:8508641 (C/T), Y:12709402 (G/A), Y:12890210 (C/A), Y:14625311 (T/C), Y:15201242 (C/A), Y:15519523 (G/A), Y:17059583 (G/A), Y:19394487 (C/T), Y:21265393 (T/C), Y:21682347 (A/G), Y:26595258 (A/G)	
	10 SNPs	FTDNA-B92721 (Haney)
	8 SNPs	FTDNA-441151 (Henriques-Klautau)
	A8466, A8468, A8476, A8509, A8510, A8515, A8521, A8533, A8537, A8541, A8542, BY11823, <b>CTS10694, CTS1195, CTS7354, CTS8326, F4036/M11845, F552, S12023, S16080, S8520, S9254</b>	
	CTS7206, S516/Z351	BDNA-582
	20 (+147) SNPs	FTDNA-485717 (Royal)
	BY11824, BY11825, BY11826, BY11827, BY11828, BY11829, BY11830, BY11831, BY11832, BY11833, BY11834, BY11835, BY11836, Y:11468673 (T/A), Y:15556709 (G/A), Y:15816879 (G/A)	
	7 SNPs	FTDNA-349877 (Hale)
	F4346, Y2411/Z29058, 7 SNPs	FTDNA-211617 (Walker)
	<b>S23564</b>	
	CTS6640, CTS8818, CTS12318, M1946, Y11669, 38 SNPs	1KGP-HG00148 (British from England and Scotland)
	18 SNPs	FTDNA-N74618 (Myers)
	Y35797, Y:13765796 (A/G), Y:15837209 (T/C), Y:15908159 (C/A), Y:20325283 (G/A), Y:21284598 (C/G)	
	10 SNPs	FTDNA-136502 (Vodden)
	14 SNPs	FTDNA-227066 (Mitchell)

1KGP	1000 Genomes Project
B2017	Balanovsky et al. 2017
BDNA	Britain's DNA
C2014	Chambers et al. 2014
FGC	Full Genomes Corp.
FTDNA	Family Tree DNA
H2014	Hallast et al. 2014
HGDP	Human Genome Diversity Project, Lippold et al. 2014
K2015	Karmin et al. 2015
PF2013	Francaletti et al. 2013
PF2015	Francaletti et al. 2015
PGP	Personal Genome Project
R2013	Rootsi et al. 2013
SGDP	Simons Genome Diversity Project, Mallick et al. 2016
T2015	Trombetta et al. 2015
U2015	Underhill et al. 2015