

SUPPLEMENTARY TABLES

Supplementary Table 1. Characteristics of the 19p13.11 gene mutations.

| SNV ID (rs#) | HGVS Name | Chr: Position | Contig | Contig Pos | SNP to Chr | Allele | MAF/Minor | Map Methods |
|----------------------|---------------------------------|---------------|--------------|------------|------------|--------|---------------------------------|-------------|
| <i>NCAN</i> | | | | | | | | |
| rs2238675 | NM_004386.2: c.1072+529 C>T | 19:19225799 | NT_011295.12 | 19165799 | Fwd | T | T=0.0960/481 (1000 Genomes) | mapup |
| rs2228603 | NM_004386.2: c.274 C>T | 19:19159115 | NT_011295.12 | 19159115 | Fwd | C | T=0.0439/220 (1000 Genomes) | mapup |
| <i>TM6SF2</i> | | | | | | | | |
| rs58542926 | NM_001001524.2: c.499 C>T | 19: 19208740 | NT_011295.12 | 19208740 | Fwd | T | T=0.0667/334 (1000 Genomes) | mapup |
| rs735273 | NN_001001524.2: c.- 1387 A>G | 19:19214602 | NT_011295.12 | 19214602 | Fwd | G | C=0.4655/2331 (1000 Genomes) | mapup |
| <i>CILP2</i> | | | | | | | | |
| rs16996148 | NC_000019.9: g.19658472 G>T | 19: 19487663 | NT_011295.12 | 19487663 | Fwd | G | T=0.1156/579 (1000 Genomes) | mapup |
| rs17216525 | NC_000019.9: g.19662220 C>T | 19: 19491411 | NT_011295.12 | 19491411 | Fwd | C | T=0.0815/408 (1000 Genomes) | mapup |
| <i>PBX4</i> | | | | | | | | |
| rs12610185 | NM_025245.2: c.119+7598 C>T | 19: 19550913 | NT_011295.12 | 19550913 | Fwd | C | T=0.1132/567 (1000 Genomes) | mapup |
| <i>SUGPI</i> | | | | | | | | |
| rs10401969 | NM_172231.3: c.1243+80 A>G | 19: 19236909 | NT_011295.12 | 19236909 | Fwd | A | G=0.1176/589 (1000 Genomes) | mapup |
| <i>MAU2</i> | | | | | | | | |
| rs73001065 | NM_015329.3: c.1548+296 G>C | 19: 19289732 | NT_011295.12 | 19289732 | Fwd | G | C=0.0319/160 (1000 Genomes) | mapup |
| rs8102280 | NM_015329.3: c.1155+15 G>A | 19: 19284941 | NT_011295.12 | 19284941 | Fwd | G | A=0.0333/167 (1000 Genomes) | mapup |
| rs150268548 | NC_000019.9: g.19494483 G>A | 19: 19323674 | NT_011295.12 | 19323674 | Fwd | G | A=0.0260/130 (1000 Genomes) | mapup |
| rs968525 | NM_015329.3: c.1309- 483 C>T | 19: 19288406 | NT_011295.12 | 19288406 | Rev | C | T=0.3033/1519 (1000 Genomes) | mapup |

Supplementary Table 2. The sequences of forward and backward primers of the 19p13.11 gene mutations.

| Gene | Primer sequence |
|----------------------|--|
| <i>NCAN</i> | |
| rs2238675 | TGGAAGAGATAATGCCTCAATTGGC GGTAGTGTCCAACCTCATGAACTTG |
| rs2228603 | TCCAACCCAGGCACACAGGATAT GCCACCCTCACGACATTGTC |
| <i>TM6SF2</i> | |
| rs58542926 | CCCTCCCTTCTTTCTTGTGACA CCTGCACCATGGAAGGCAAATA |
| rs735273 | CTGCAGCTGGCACAAATTCTAAC CCCGCTTACAAGAAGGCTCATTTTA |
| <i>CILP2</i> | |
| rs16996148 | CCGATCTCATCATTACCCATC GTCCACCCTAGGGCAAAGGAAG |
| rs17216525 | CAGCCAGGAGGGATAGAAGATACT CTTCTTTGAGCTGCACCATTCTG |
| <i>PBX4</i> | |
| rs12610185 | TGTCAAACAACAAAAACCAACACAATT GGGAATTTATGATGTGGAATTTCCAGA |
| <i>SUGPI</i> | |
| rs10401969 | ATTGCAATAGGCCAGCAATTCC TTGGAAGGGTCTGACTTCTTTCAC |
| <i>MAU2</i> | |
| rs73001065 | GCATGGCACTGTTTCATCCTATG CCCTCAGGTGTCAACACATAGC |
| rs8102280 | CAGTTTGGTCAGACAGGACATG GAATGTTCTGGATCTGGTTAGGTACTIONTAC |
| rs150268548 | GGCAAATGGGCTGCTTTTCT GCCTCAGCCCTAGGACAATG |
| rs968525 | AACCTGTCTCAAAGGAAAAAGAAAGCC GGCGTGATCTGACTGATAATTTAGCT |