

VNTR	Estimated Genotype					
	adVNTR			ExpansionHunter		
	AJ Child	AJ Mother	AJ Father	AJ Child	AJ Mother	AJ Father
<i>DRD4</i>	4/5	4/5	4/4	-/-	-/-	-/-
<i>ZFHX3</i>	4/4	4/4	4/4	3/3	-/-	3/3
<i>GP1BA</i>	2/5	2/3	3/4	2/2	1/1	2/2
<i>SLC6A4</i>	13/13	11/13	13/13	-/-	-/-	-/-
<i>MMP9</i>	3/3	3/3	3/3	-/-	-/-	-/-
<i>CSTB</i>	2/2	2/2	2/2	3/3	2/2	1/1
<i>MAOA</i>	5/5	4/5	4/4	-/-	-/-	-/-

Table S5: **Genotyping comparison on AJ trio using Illumina reads from GIAB.** Table shows the genotype found by adVNTR and ExpansionHunter in disease causing VNTRs that are shorter than Illumina reads. -/- denotes ExpansionHunter has not found any genotype for the VNTR. It worths mentioning the genotypes found by adVNTR for *MAOA* are not inconsistent as this VNTR is located on ChrX and the son has haploid RU counts inherited from mother.