## *Supplementary material*

# Previous literature concerning the SNPs that were associated with the temperament clusters in this study

A PubMed search was carried out on the 9th of September 2020 concerning the significant SNPs observed in this study. The SNPs in the HHA/LRD/LP cluster at six weeks had few relevant studies overall. Rs46871859 only had a handful of studies that had been made related to psychiatric diseases, but no significant findings have been observed (Ching-Lopez et al. 2015; Calabro et al. 2018). No previous studies have been made concerning rs9567737.

Among the SNPs associated with the HHA/LRD/LP cluster at baseline, some studies have been made related to psychiatric conditions. Over 100 studies have been published about rs6280, investigating conditions such as schizophrenia (Qi et al. 2017) and parkinsonism (Redenšek et al. 2019). In a few studies, a combination of SNPs including rs6280 have had an association with depressive symptoms and substance abuse (Kuo et al. 2018; Avinun et al. 2020; Kuo et al. 2014). This SNP was also found to be a missense SNP. Furthermore, this SNP has been found to have an associated with rs324029 (LD r2 = 0.839826), and this associated SNP has been studied in a few cases, with some associations related to schizophrenia and substance abuse (Kuo et al. 2014; Kuo et al. 2018; Talkowski et al. 2006). Rs324029 has been most notably associated with substance abuse in a few studies, and has been observed in a haplotype that included rs6280, and this haplotype has had an association with amphetamine dependence (Kuo et al. 2014; Kuo et al. 2018).

Rs3773678 has had partial association with schizophrenia and nicotine dependence (Wei et al. 2012; Kukshal et al. 2013). Only 3 studies on rs7194256 were found, only one of which was somewhat related to psychiatric phenomena, but no association was found in regard to this SNP (Angyal et al. 2018). Some studies have been done concerning rs3785157, mostly to do with ADHD, where an association between this SNP and the risk of ADHD has been found, as well as an association between this SNP and inattention in ADHD patients. (X. Xu et al. 2008; Hohmann et al. 2015; Pinto et al. 2016). A few studies have been conducted on rs2020936, where an association between this SNP and depression, neuroticism, recurrent depression and BDI scores was observed (Su et al. 2009; Wray et al. 2009). An association between this SNP and the short allele of SLC6A4 has been observed as well. Only 4 studies were found with mentions of rs582385, no associations to this SNP have been observed (Ching-Lopez et al. 2015).

The SNPs found in the HHA/LRD/LP cluster at baseline without sex considered as a confounding factor were also looked up. A single study has a mention of rs582854, the abstract of which did not mention specific SNPs. No studies were found concerning rs4942582. Only a single study related to psychiatric phenomena mentions rs7330636, though no mention of this SNP was listed in the abstract’s results (Ching-Lopez et al. 2015).

The studies found concerning the SNPs in the HP cluster at six weeks had some links to psychiatric conditions. Some studies were found concerning rs5993883, most notably a single study by Nyman et. al, where no major genetic effects were observed concerning MDD, but when taking measures of early development and social environment into account, a haplotype of SNPs including this SNP was found to be significantly associated with MDD (Nyman et al. 2011). There was a clear overlap in the studies found for this SNP, and rs2239393. The haplotype observed in the previously mentioned study by Nyman et al. also included rs2239393 (Nyman et al. 2011). An association between rs2239393 and rs4818 (LD r2 = 0.95644) was observed. Rs4818 has been studied in more than 100 studies. None of them had significant results for an association between this SNP and psychiatric conditions, and overall observed conditions such as pain, substance abuse, ADHD, Parkinson’s disease and schizophrenia (Q. Xu et al. 2016; Kocabas et al. 2010; Li et al. 2011). A single study on rs9567746 was found, which only focused on somatic symptoms. No studies on rs9316232 were found.

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