Table 1: The 199 genes among the 500 most highly *COMT* – correlated genes (ranked by p-value) expressed in Prefrontal Cortex but not found among the 500 most highly *COMT* – correlated genes in Cerebellum, Temporal Cortex, or Pons.

| 1  | RPL18AP3 | H3F3C    | PKM2      | RPL19     |
|----|----------|----------|-----------|-----------|
| 2  | NKRF     | RPS14    | PABPC1    | RPS5      |
| 3  | RPL13A   | CCDC28A  | RPL12     | RPL35P5   |
| 4  | SCAMP1   | RPS3     | HSD17B8   | SH3BGRL2  |
| 5  | WDR69    | KPNA4    | GABARAPL1 | BGLAP     |
| 6  | GPIAP1   | DENR     | OPTN      | PPP2CA    |
| 7  | DNAJA2   | S100A16  | CIB1      | WIPI1     |
| 8  | RBP1     | CLCN2    | TPT1      | NEFM      |
| 9  | MGC35154 | NME5     | KIF21A    | SMARCA2   |
| 10 | THRA     | EIF3S4   | FAU       | SPATA18   |
| 11 | EEF1D    | MATR3    | PREPL     | NT5C      |
| 12 | VPS36    | RPS17    | SAE1      | FER       |
| 13 | ALDH1A1  | C9orf23  | RPS9      | C14orf169 |
| 14 | CINP     | ARHGEF3  | PSME1     | CADPS     |
| 15 | C9orf140 | PRR23B   | C1orf61   | IFITM5    |
| 16 | ATG5     | GABRG2   | TOMM34    | FAM83B    |
| 17 | NDFIP1   | TFPT     | LOC401589 | RPL36     |
| 18 | LIPI     | RPL8     | RPS11     | C11orf48  |
| 19 | CCPG1    | KIAA1600 | NEFH      | PECR      |
| 20 | TRIM37   | LIX1L    | YARS      | LPHN2     |
| 21 | SMAP1    | POPDC3   | TCEAL2    | CD83      |
| 22 | MKL2     | SLC6A15  | LIN28B    | MEF2C     |

Table 1: (Unique genes Prefrontal continued)

| 23 | ATP6V1C1 | MTCH1      | SLC25A1  | IGSF1    |
|----|----------|------------|----------|----------|
| 24 | PTPN4    | C11orf59   | ARSF     | TGFB2    |
| 25 | CDH12    | ENO2       | C15orf37 | OXR1     |
| 26 | BCAT2    | CACNA2D3   | RSPO3    | TMEM134  |
| 27 | RPL30    | NAPB       | C2orf68  | SLC25A12 |
| 28 | THYN1    | MTA3       | TOPBP1   | MYH10    |
| 29 | EPN2     | PCTK2      | ENPP5    | DNAJC5G  |
| 30 | CCNF     | RPS13      | PIP5KL1  | CCDC63   |
| 31 | ZNF775   | RALYL      | AFF2     | COL5A2   |
| 32 | WASL     | ZNF804B    | ACSS1    | SLC39A10 |
| 33 | DCP2     | HYI        | VMA21    | WDR16    |
| 34 | RPP40    | PRICKLE1   | HDGF     | MDS032   |
| 35 | FLJ37357 | NCKAP1     | FAM26C   | B3GNT1   |
| 36 | OR5K3    | NDEL1      | FLJ23049 | PANK2    |
| 37 | AP3M2    | UCRC       | ZNF533   | RPS4X    |
| 38 | B4GALNT2 | RP1-32F7.2 | TAS2R8   | KRT222P  |
| 39 | TAX1BP3  | AHI1       | MC3R     | GPRASP2  |
| 40 | LARGE    | MLL2       | ORC4L    | PLAT     |

Table 1: (Unique genes Prefrontal continued)

| 41 | FLJ10986 | GLS     | DERL2          | IL5RA    |
|----|----------|---------|----------------|----------|
| 42 | FGF1     | PACS2   | NARS           | ACTR6    |
| 43 | KLK7     | LUZP4   | GRM1           | REEP5    |
| 44 | ALX4     | OPLAH   | AFF3           | ZNF490   |
| 45 | CAMTA1   | LRFN5   | <i>ZNF</i> 396 | GJB6     |
| 46 | CDC14A   | RPL11   | LDB2           | CDC2L1   |
| 47 | PRC1     | LGALS13 | NDUFV2         | HSDL1    |
| 48 | HLA-F    | PELI2   | MRPS36         | KIAA0528 |
| 49 | EDG7     | MTMR4   | VDAC3          | TUFM     |
| 50 | PCDHGA1  | SEC13   | ZBTB24         |          |

Table 2: The 236 genes among the 500 most highly *COMT* – correlated genes (ranked by p-value) expressed in Cerebellum but not found among the 500 most highly *COMT* – correlated genes in Prefrontal, Temporal Cortex, or Pons.

| 1 | CYB5D2  | TMEM106C | VPS41    | C1orf71 |
|---|---------|----------|----------|---------|
| 2 | TYW1    | GLE1L    | MAP1B    | RGS17   |
| 3 | CELSR3  | LYPLAL1  | CRTAP    | ZMYND17 |
| 4 | PRTFDC1 | NCAM2    | PRMT2    | RNF150  |
| 5 | FANCL   | SUZ12    | OMG      | PRG-3   |
| 6 | HNMT    | GFOD1    | CGI-38   | NSDHL   |
| 7 | SUMF1   | FAM80B   | C12orf31 | SERBP1  |

Table 2: (Unique genes Cerebellum continued)

| 8  | C10orf58         | PAOX     | <i>ZNF</i> 398 | TUBA1A    |
|----|------------------|----------|----------------|-----------|
| 9  | SCN2A            | ZNF540   | SH3BGR         | BSN       |
| 10 | C19orf42         | EDC4     | LIN9           | SLC25A26  |
| 11 | DTD1             | ALG14    | TYMS           | GTDC1     |
| 12 | NRIP3            | SLC24A2  | CREG1          | SPCS1     |
| 13 | LEPREL2          | FLJ40142 | STOM           | MMS19L    |
| 14 | GMPR2            | GPR135   | PSMB2          | PLEKHA5   |
| 15 | MLYCD            | NCSTN    | DHRS7          | SPIRE1    |
| 16 | FLJ20054         | CNDP1    | CTSL1          | CXorf57   |
| 17 | MRPL24           | CNOT6    | DHRS7B         | D15WSU75E |
| 18 | CHD9             | WDFY1    | YIF1B          | KNOP1     |
| 19 | ACOT8            | FBXL10   | POLD4          | SNAPC4    |
| 20 | STK36            | PHKA2    | EIF2AK1        | HSD17B12  |
| 21 | GAPDH            | GBA      | TMED10         | EIF3S2    |
| 22 | LGMN             | TMCO1    | CDC2L5         | ARPP-21   |
| 23 | FAM13A1          | SETDB2   | ERCC1          | ZDHHC9    |
| 24 | JTV1             | C1orf57  | DCTN6          | COX6A1    |
| 25 | RYR2             | TCEA2    | C11orf49       | CAPN13    |
| 26 | KIAA1853         | C18orf10 | <i>ZNF</i> 562 | PFDN1     |
| 27 | TM4SF11          | NDN      | TRIM45         | SLC45A3   |
| 28 | PIGK             | PHYHIPL  | TNFRSF25       | DNAPTP6   |
| 29 | C20orf169-DBNDD2 | SLC30A7  | RPS6KA4        | ARMCX6    |

Table 2: (Unique genes Cerebellum continued)

| 30 | ERBB3   | FOXO3A   | RPAIN   | <i>ZNF4</i> 88 |
|----|---------|----------|---------|----------------|
| 31 | CDKAL1  | CLCN3    | SEC11C  | ENOSF1         |
| 32 | GREM1   | TMEM98   | AHCTF1  | DIAPH1         |
| 33 | RPN1    | USP47    | ZNF174  | EPC2           |
| 34 | PCDHAC1 | GALNT9   | NOLA2   | FRMD6          |
| 35 | RSAD1   | PTPN13   | KCNQ2   | DEFB103B       |
| 36 | SRPX    | BICD1    | NDUFA11 | CNTN2          |
| 37 | MALT1   | C11orf31 | MAP3K12 | SHC4           |
| 38 | FOXJ2   | SUMF2    | ARPP-19 | DMRT2          |
| 39 | GOLGA7  | NCOA3    | SNAP25  | ADSSL1         |
| 40 | RPUSD4  | HSD17B4  | AP3B1   | ZIM2           |
|    |         |          |         |                |

Table 2: (Unique genes Cerebellum continued)

| 41 | PRRT2    | CDC123   | GLT25D2  | ZNF529    |
|----|----------|----------|----------|-----------|
| 42 | EVI2A    | ARL5A    | EMG1     | ARHGAP1   |
| 43 | TUFT1    | CCNE2    | GAB1     | CAP1      |
| 44 | ZHX1     | NINJ2    | TSPAN9   | FOLH1     |
| 45 | AP1GBP1  | BTBD16   | LACTB2   | NUDCD2    |
| 46 | LRRC37B  | CCDC21   | YIPF1    | RPS6KB1   |
| 47 | PLCL1    | SETD6    | MAP3K5   | LOC731950 |
| 48 | KIAA0240 | MGC35308 | NMB      | RAB33A    |
| 49 | RASSF2   | COL4A3BP | GPAA1    | PMP22     |
| 50 | SLC5A11  | GPX4     | PLEKHA6  | UGCG      |
| 51 | FSTL5    | DSCR3    | POLG     | ZNF521    |
| 52 | TAX1BP1  | HLCS     | ZNF354A  | KBTBD8    |
| 53 | LTC4S    | SLC35F1  | ZNF547   | CCS       |
| 54 | TRIM13   | PHC2     | CRADD    | TBCC      |
| 55 | DAK      | GABRB3   | GJB1     | BTF3      |
| 56 | KCTD2    | RIMS3    | ZNF326   | WDR42A    |
| 57 | TSPAN3   | AHCY     | SCN3A    | LZTS2     |
| 58 | FAM55C   | CRYGS    | CYB561D2 | ZMAT3     |
| 59 | ABCF2    | PPP2R5E  | TMEM16D  | THRAP2    |

Table 3: The 209 genes among the 500 most highly *COMT* – correlated genes (ranked by p-value) expressed in Temporal Cortex but not found among the 500 most highly *COMT* – correlated genes in Prefrontal Cortext, Cerebellum, or Pons.

| 1  | IL17RB    | AQP4     | DOCK7     | THBS4    |
|----|-----------|----------|-----------|----------|
| 2  | RGN       | ITPR2    | TPD52L1   | EMX2     |
| 3  | BBS2      | ATP1B2   | GPR98     | RAB5C    |
| 4  | ALDH6A1   | C4orf19  | C14orf159 | LAMA1    |
| 5  | LRIG1     | SLC1A2   | LHX2      | CHST7    |
| 6  | COQ9      | CHPT1    | DDR1      | CLCC1    |
| 7  | SLC15A2   | ZNF22    | FLJ32310  | RAD1     |
| 8  | CDKN2C    | SOX21    | RFC2      | ETFDH    |
| 9  | IL33      | GPAM     | FAM89A    | HRSP12   |
| 10 | AK3L2     | SOX9     | LINC00299 | PPAPDC1B |
| 11 | APPL2     | C4orf18  | CCDC25    | PSD2     |
| 12 | TMEM70    | TNIK     | TMEM123   | TRAF5    |
| 13 | INPP5A    | IRX5     | GLI3      | SLC30A9  |
| 14 | IL10RB    | MSI2     | ATP1A2    | SLC7A10  |
| 15 | C10orf110 | NTRK2    | HNRPU     | PDE1A    |
| 16 | GSTK1     | MPP3     | SUPT16H   | ZNF622   |
| 17 | PRKD1     | FGF2     | TTC21B    | NWD1     |
| 18 | C9orf61   | OAF      | BCAR3     | CDKN3    |
| 19 | PHKG1     | TNFAIP6  | HIBCH     | GPT2     |
| 20 | RAD9B     | C9orf123 | GALNT4    | SPARCL1  |
| 21 | BBOX1     | SPON1    | BEST4     | PCDHB5   |

Table 3: (Unique genes Cerebellum continued)

| 22         LSAMP         CSRP1         LMO7         LRCH1           23         PARP3         USP15         FZD8         TRPS1           24         TBC1D14         PLA2R1         SLC44A3         AMOT           25         S100A1         SHH         ACSL6         TLK1           26         TCEAL4         LYN         RHOBTB3         ALDH7A1           27         DNASE2         EPHX1         RET         METT11D1           28         EIF2B3         CD37         DDO         PYGM           29         OPHN1         PHF21B         CCDC121         NPAS3           30         DHX32         TUBB2B         APOC2         PARP9           31         CDC42EP4         POLR3C         STOX1         LOC400455           32         CHSY-2         RFTN2         RNF182         WASF3           33         CALB1         KIAA0789         SH3BP4         GFM1           34         HSF1         ERO1L         C22orf9         C20orf107           35         SH3BGRL3         LCN8         C1orf74         RAB7L1           36         CYFIP1         DKFZP686D0972         PHF17         C19orf54           37         <  |    |          |               |             |           |
|---|----|----------|---------------|-------------|-----------|
| 24         TBC1D14         PLA2R1         SLC44A3         AMOT           25         S100A1         SHH         ACSL6         TLK1           26         TCEAL4         LYN         RHOBTB3         ALDH7A1           27         DNASE2         EPHX1         RET         METT11D1           28         EIF2B3         CD37         DDO         PYGM           29         OPHN1         PHF21B         CCDC121         NPAS3           30         DHX32         TUBB2B         APOC2         PARP9           31         CDC42EP4         POLR3C         STOX1         LOC400455           32         CHSY-2         RFTN2         RNF182         WASF3           33         CALB1         KIAA0789         SH3BP4         GFM1           34         HSF1         ERO1L         C22orf9         C20orf107           35         SH3BGRL3         LCN8         C1orf74         RAB7L1           36         CYFIP1         DKFZP686D0972         PHF17         C19orf54           37         NEK10         TSEN34         BA16L21.2.1         ZNF385           38         ELOVL5         USP14         SLC7A11         DHTKD1           39<   | 22 | LSAMP    | CSRP1         | LMO7        | LRCH1     |
| 25         \$100A1         \$SHH         \$AC\$L6         \$TLK1           26         \$TCEAL4         \$LYN         \$RHOBTB3         \$ALDH7A1           27         \$DNA\$E2         \$EPHX1         \$RET         \$METT11D1           28         \$EIF2B3         \$CD37         \$DDO         \$PYGM           29         \$OPHN1         \$PHF21B         \$CCDC121         \$NPA\$\$3           30         \$DHX32         \$TUBB2B         \$APOC2         \$PARP9           31         \$CDC42EP4         \$POLR3C         \$STOX1         \$LOC400455           32         \$CH\$Y-2         \$RFTN2         \$RNF182         \$WA\$\$F3           33         \$CALB1         \$KIAA0789         \$SH3BP4         \$GFM1           34         \$H\$\$F1         \$ERO1L         \$C220rf9         \$C200rf107           35         \$SH3BGRL3         \$LCN8         \$C10rf74         \$RAB7L1           36         \$CYFIP1         \$DKFZP686D0972         \$PHF17         \$C190rf54           37         \$NEK10         \$T\$\$EN34         \$BA16L21.2.1         \$ZNF385           38         \$ELOVL5         \$U\$\$P14         \$SLC7A11         \$DHTKD1           39         \$LC4A4         \$OTX1         \$SRI | 23 | PARP3    | USP15         | FZD8        | TRPS1     |
| 26         TCEAL4         LYN         RHOBTB3         ALDH7A1           27         DNASE2         EPHX1         RET         METT11D1           28         EIF2B3         CD37         DDO         PYGM           29         OPHN1         PHF21B         CCDC121         NPAS3           30         DHX32         TUBB2B         APOC2         PARP9           31         CDC42EP4         POLR3C         STOX1         LOC400455           32         CHSY-2         RFTN2         RNF182         WASF3           33         CALB1         KIAA0789         SH3BP4         GFM1           34         HSF1         ERO1L         C22orf9         C20orf107           35         SH3BGRL3         LCN8         C1orf74         RAB7L1           36         CYFIP1         DKFZP686D0972         PHF17         C19orf54           37         NEK10         TSEN34         BA16L21.2.1         ZNF385           38         ELOVL5         USP14         SLC7A11         DHTKD1           39         SLC4A4         OTX1         SRI         ZWILCH   | 24 | TBC1D14  | PLA2R1        | SLC44A3     | AMOT      |
| 27         DNASE2         EPHX1         RET         METT11D1           28         EIF2B3         CD37         DDO         PYGM           29         OPHN1         PHF21B         CCDC121         NPAS3           30         DHX32         TUBB2B         APOC2         PARP9           31         CDC42EP4         POLR3C         STOX1         LOC400455           32         CHSY-2         RFTN2         RNF182         WASF3           33         CALB1         KIAA0789         SH3BP4         GFM1           34         HSF1         ERO1L         C22orf9         C20orf107           35         SH3BGRL3         LCN8         C1orf74         RAB7L1           36         CYFIP1         DKFZP686D0972         PHF17         C19orf54           37         NEK10         TSEN34         BA16L21.2.1         ZNF385           38         ELOVL5         USP14         SLC7A11         DHTKD1           39         SLC4A4         OTX1         SRI         ZWILCH   | 25 | S100A1   | SHH           | ACSL6       | TLK1      |
| 28       EIF2B3       CD37       DDO       PYGM         29       OPHN1       PHF21B       CCDC121       NPAS3         30       DHX32       TUBB2B       APOC2       PARP9         31       CDC42EP4       POLR3C       STOX1       LOC400455         32       CHSY-2       RFTN2       RNF182       WASF3         33       CALB1       KIAA0789       SH3BP4       GFM1         34       HSF1       ERO1L       C22orf9       C20orf107         35       SH3BGRL3       LCN8       C1orf74       RAB7L1         36       CYFIP1       DKFZP686D0972       PHF17       C19orf54         37       NEK10       TSEN34       BA16L21.2.1       ZNF385         38       ELOVL5       USP14       SLC7A11       DHTKD1         39       SLC4A4       OTX1       SRI       ZWILCH  | 26 | TCEAL4   | LYN           | RHOBTB3     | ALDH7A1   |
| 29       OPHN1       PHF21B       CCDC121       NPAS3         30       DHX32       TUBB2B       APOC2       PARP9         31       CDC42EP4       POLR3C       STOX1       LOC400455         32       CHSY-2       RFTN2       RNF182       WASF3         33       CALB1       KIAA0789       SH3BP4       GFM1         34       HSF1       ERO1L       C22orf9       C20orf107         35       SH3BGRL3       LCN8       C1orf74       RAB7L1         36       CYFIP1       DKFZP686D0972       PHF17       C19orf54         37       NEK10       TSEN34       BA16L21.2.1       ZNF385         38       ELOVL5       USP14       SLC7A11       DHTKD1         39       SLC4A4       OTX1       SRI       ZWILCH  | 27 | DNASE2   | EPHX1         | RET         | METT11D1  |
| 30       DHX32       TUBB2B       APOC2       PARP9         31       CDC42EP4       POLR3C       STOX1       LOC400455         32       CHSY-2       RFTN2       RNF182       WASF3         33       CALB1       KIAA0789       SH3BP4       GFM1         34       HSF1       ERO1L       C22orf9       C20orf107         35       SH3BGRL3       LCN8       C1orf74       RAB7L1         36       CYFIP1       DKFZP686D0972       PHF17       C19orf54         37       NEK10       TSEN34       BA16L21.2.1       ZNF385         38       ELOVL5       USP14       SLC7A11       DHTKD1         39       SLC4A4       OTX1       SRI       ZWILCH  | 28 | EIF2B3   | CD37          | DDO         | PYGM      |
| 31         CDC42EP4         POLR3C         STOX1         LOC400455           32         CHSY-2         RFTN2         RNF182         WASF3           33         CALB1         KIAA0789         SH3BP4         GFM1           34         HSF1         ERO1L         C22orf9         C20orf107           35         SH3BGRL3         LCN8         C1orf74         RAB7L1           36         CYFIP1         DKFZP686D0972         PHF17         C19orf54           37         NEK10         TSEN34         BA16L21.2.1         ZNF385           38         ELOVL5         USP14         SLC7A11         DHTKD1           39         SLC4A4         OTX1         SRI         ZWILCH  | 29 | OPHN1    | PHF21B        | CCDC121     | NPAS3     |
| 32       CHSY-2       RFTN2       RNF182       WASF3         33       CALB1       KIAA0789       SH3BP4       GFM1         34       HSF1       ERO1L       C22orf9       C20orf107         35       SH3BGRL3       LCN8       C1orf74       RAB7L1         36       CYFIP1       DKFZP686D0972       PHF17       C19orf54         37       NEK10       TSEN34       BA16L21.2.1       ZNF385         38       ELOVL5       USP14       SLC7A11       DHTKD1         39       SLC4A4       OTX1       SRI       ZWILCH   | 30 | DHX32    | TUBB2B        | APOC2       | PARP9     |
| 33       CALB1       KIAA0789       SH3BP4       GFM1         34       HSF1       ERO1L       C22orf9       C20orf107         35       SH3BGRL3       LCN8       C1orf74       RAB7L1         36       CYFIP1       DKFZP686D0972       PHF17       C19orf54         37       NEK10       TSEN34       BA16L21.2.1       ZNF385         38       ELOVL5       USP14       SLC7A11       DHTKD1         39       SLC4A4       OTX1       SRI       ZWILCH  | 31 | CDC42EP4 | POLR3C        | STOX1       | LOC400455 |
| 34       HSF1       ERO1L       C22orf9       C20orf107         35       SH3BGRL3       LCN8       C1orf74       RAB7L1         36       CYFIP1       DKFZP686D0972       PHF17       C19orf54         37       NEK10       TSEN34       BA16L21.2.1       ZNF385         38       ELOVL5       USP14       SLC7A11       DHTKD1         39       SLC4A4       OTX1       SRI       ZWILCH  | 32 | CHSY-2   | RFTN2         | RNF182      | WASF3     |
| 35       SH3BGRL3       LCN8       C1orf74       RAB7L1         36       CYFIP1       DKFZP686D0972       PHF17       C19orf54         37       NEK10       TSEN34       BA16L21.2.1       ZNF385         38       ELOVL5       USP14       SLC7A11       DHTKD1         39       SLC4A4       OTX1       SRI       ZWILCH  | 33 | CALB1    | KIAA0789      | SH3BP4      | GFM1      |
| 36       CYFIP1       DKFZP686D0972       PHF17       C19orf54         37       NEK10       TSEN34       BA16L21.2.1       ZNF385         38       ELOVL5       USP14       SLC7A11       DHTKD1         39       SLC4A4       OTX1       SRI       ZWILCH  | 34 | HSF1     | ERO1L         | C22orf9     | C20orf107 |
| 37         NEK10         TSEN34         BA16L21.2.1         ZNF385           38         ELOVL5         USP14         SLC7A11         DHTKD1           39         SLC4A4         OTX1         SRI         ZWILCH   | 35 | SH3BGRL3 | LCN8          | C1orf74     | RAB7L1    |
| 38 ELOVL5 USP14 SLC7A11 DHTKD1 39 SLC4A4 OTX1 SRI ZWILCH  | 36 | CYFIP1   | DKFZP686D0972 | PHF17       | C19orf54  |
| 39 SLC4A4 OTX1 SRI ZWILCH   | 37 | NEK10    | TSEN34        | BA16L21.2.1 | ZNF385    |
|   | 38 | ELOVL5   | USP14         | SLC7A11     | DHTKD1    |
| 40 TH1L KAL1 TMEM127 APP  | 39 | SLC4A4   | OTX1          | SRI         | ZWILCH    |
|   | 40 | TH1L     | KAL1          | TMEM127     | APP       |

Table 3: (Unique genes Cerebellum continued)

| 41 | RERG    | PCBD1   | TLCD1   | BAAT     |
|----|---------|---------|---------|----------|
| 42 | CNTFR   | GPX7    | SAMD5   | TMEM80   |
| 43 | RYR1    | SH3BP5  | TPP1    | C20orf72 |
| 44 | ALDH4A1 | PHACTR4 | POGZ    | FLT3     |
| 45 | CSRP2   | F3      | MIXL1   | LMNB1    |
| 46 | GAL3ST4 | RHEBL1  | FAM118B | LMX1B    |
| 47 | GBP7    | ZNF544  | ZNF263  | MRPL41   |
| 48 | HIGD2A  | GPR56   | LEPROT  | TM4SF18  |
| 49 | STS     | ASCL1   | UBE2J1  | KIAA0195 |
| 50 | PPP1R3D | COL5A3  | HERPUD2 | ANKRD15  |
| 51 | ASXL2   | MCCC2   | GNG7    | NFE2L2   |
| 52 | BZRAP1  | ZWINT   | MAT1A   | LRRC8A   |
| 53 | AKR1C3  |         |         |          |

Table 4: The 235 genes among the 500 most highly *COMT* – correlated genes (ranked by p-value) expressed in Pons but not found among the 500 most highly *COMT* – correlated genes in Prefrontal Cortext, Cerebellum, or Temporal Cortex.

| 1 <i>KLK</i> 3 | AGPS     | PIGM    | LRRC63 |
|----------------|----------|---------|--------|
| 2 THRAP6       | C7orf11  | PET112L | PCSK6  |
| 3 HIST1H4F     | H SEPT10 | C9orf77 | BTD    |

Table 4: (Unique genes Cerebellum continued)

| -  |          |          |                 |          |
|----|----------|----------|-----------------|----------|
| 4  | FNTB     | TLE4     | SCHIP1          | SSR4     |
| 5  | PRELID1  | STXBP3   | EEF2K           | USH1C    |
| 6  | KCTD3    | TIMP2    | STAMBP          | PAPSS1   |
| 7  | HINT3    | ATP8A1   | DIXDC1          | PIGG     |
| 8  | TMEM116  | ALDH3A2  | DICER1          | MPDZ     |
| 9  | EMILIN2  | C20orf4  | FBXO32          | NFE2L3   |
| 10 | MED8     | TIA1     | TSPAN8          | FLJ11506 |
| 11 | KIAA1026 | C9orf164 | RKHD1           | CTTNBP2  |
| 12 | FLOT2    | ST18     | EXDL2           | C22orf5  |
| 13 | NLN      | LASS2    | MYO1E           | MLH1     |
| 14 | ELOVL1   | SEC23B   | EIF2B1          | MTSS1    |
| 15 | REEP3    | GPC5     | C5orf37         | BRD7     |
| 16 | TFCP2    | BRMS1    | HMGCL           | WDR57    |
| 17 | TMEM5    | CRIPT    | ZMYM5           | TMC7     |
| 18 | C1orf77  | ERBB2IP  | CMTM5           | PRPF19   |
| 19 | HARS     | EFS      | HNRPC           | DNAJC5   |
| 20 | STT3A    | INTS4    | BCAP31          | SNX24    |
| 21 | SIRT2    | TRIP4    | KIAA0892        | SLC12A2  |
| 22 | BBX      | PLEKHG4  | PRPSAP2         | SORT1    |
| 23 | ALG13    | TESK2    | <i>KIAA0776</i> | FIS1     |
| 24 | SRPRB    | ANGPTL2  | UNC50           | RP2      |
| 25 | ZDHHC14  | KLHDC1   | CANT1           | GALC     |

Table 4: (Unique genes Cerebellum continued)

| 26         SSFA2         SPP1         PTPRD         BAT5           27         LUZP1         SGK2         CNTNAP4         VAMP3           28         IMPDH2         NETO2         FAM123B         TOR1AIP1           29         CYP20A1         HIST2H2BE         TTLL11         EFCBP1           30         DKFZP434A0131         C20orf39         MAP7         C11orf67           31         ANAPC5         ATG4C         ZCCHC11         B4GALNT1           32         DYRK4         LDLRAP1         YAF2         TMEM140           33         ST3GAL3         RALBP1         PHF5A         C1orf135           34         NSMCE4A         FAM13C1         CAPN3         SP2           35         NEK7         GEMIN8         KIAA0319         TBC1D2           36         ASCC1         INSM2         PDXK         OPRL1           37         FUSIP1         ADCY5         FAM38B         POLR2I           38         KIAA1217         SUPV3L1         FN3KRP         MTP18           39         C20orf46         PPIE         FBXW7         HNRPK           40         MGC3731         PEMT         MGC3207         NVL |    |               |           |          |          |
|--|----|---------------|-----------|----------|----------|
| 28         IMPDH2         NETO2         FAM123B         TOR1AIP1           29         CYP20A1         HIST2H2BE         TTLL11         EFCBP1           30         DKFZP434A0131         C20orf39         MAP7         C11orf67           31         ANAPC5         ATG4C         ZCCHC11         B4GALNT1           32         DYRK4         LDLRAP1         YAF2         TMEM140           33         ST3GAL3         RALBP1         PHF5A         C1orf135           34         NSMCE4A         FAM13C1         CAPN3         SP2           35         NEK7         GEMIN8         KIAA0319         TBC1D2           36         ASCC1         INSM2         PDXK         OPRL1           37         FUSIP1         ADCY5         FAM38B         POLR2I           38         KIAA1217         SUPV3L1         FN3KRP         MTP18           39         C20orf46         PPIE         FBXW7         HNRPK  | 26 | SSFA2         | SPP1      | PTPRD    | BAT5     |
| 29         CYP20A1         HIST2H2BE         TTLL11         EFCBP1           30         DKFZP434A0131         C20orf39         MAP7         C11orf67           31         ANAPC5         ATG4C         ZCCHC11         B4GALNT1           32         DYRK4         LDLRAP1         YAF2         TMEM140           33         ST3GAL3         RALBP1         PHF5A         C1orf135           34         NSMCE4A         FAM13C1         CAPN3         SP2           35         NEK7         GEMIN8         KIAA0319         TBC1D2           36         ASCC1         INSM2         PDXK         OPRL1           37         FUSIP1         ADCY5         FAM38B         POLR2I           38         KIAA1217         SUPV3L1         FN3KRP         MTP18           39         C20orf46         PPIE         FBXW7         HNRPK   | 27 | LUZP1         | SGK2      | CNTNAP4  | VAMP3    |
| 30         DKFZP434A0131         C20orf39         MAP7         C11orf67           31         ANAPC5         ATG4C         ZCCHC11         B4GALNT1           32         DYRK4         LDLRAP1         YAF2         TMEM140           33         ST3GAL3         RALBP1         PHF5A         C1orf135           34         NSMCE4A         FAM13C1         CAPN3         SP2           35         NEK7         GEMIN8         KIAA0319         TBC1D2           36         ASCC1         INSM2         PDXK         OPRL1           37         FUSIP1         ADCY5         FAM38B         POLR2I           38         KIAA1217         SUPV3L1         FN3KRP         MTP18           39         C20orf46         PPIE         FBXW7         HNRPK  | 28 | IMPDH2        | NETO2     | FAM123B  | TOR1AIP1 |
| 31       ANAPC5       ATG4C       ZCCHC11       B4GALNT1         32       DYRK4       LDLRAP1       YAF2       TMEM140         33       ST3GAL3       RALBP1       PHF5A       C1orf135         34       NSMCE4A       FAM13C1       CAPN3       SP2         35       NEK7       GEMIN8       KIAA0319       TBC1D2         36       ASCC1       INSM2       PDXK       OPRL1         37       FUSIP1       ADCY5       FAM38B       POLR2I         38       KIAA1217       SUPV3L1       FN3KRP       MTP18         39       C20orf46       PPIE       FBXW7       HNRPK  | 29 | CYP20A1       | HIST2H2BE | TTLL11   | EFCBP1   |
| 32       DYRK4       LDLRAP1       YAF2       TMEM140         33       ST3GAL3       RALBP1       PHF5A       C1orf135         34       NSMCE4A       FAM13C1       CAPN3       SP2         35       NEK7       GEMIN8       KIAA0319       TBC1D2         36       ASCC1       INSM2       PDXK       OPRL1         37       FUSIP1       ADCY5       FAM38B       POLR2I         38       KIAA1217       SUPV3L1       FN3KRP       MTP18         39       C20orf46       PPIE       FBXW7       HNRPK   | 30 | DKFZP434A0131 | C20orf39  | MAP7     | C11orf67 |
| 33       ST3GAL3       RALBP1       PHF5A       C1orf135         34       NSMCE4A       FAM13C1       CAPN3       SP2         35       NEK7       GEMIN8       KIAA0319       TBC1D2         36       ASCC1       INSM2       PDXK       OPRL1         37       FUSIP1       ADCY5       FAM38B       POLR2I         38       KIAA1217       SUPV3L1       FN3KRP       MTP18         39       C20orf46       PPIE       FBXW7       HNRPK   | 31 | ANAPC5        | ATG4C     | ZCCHC11  | B4GALNT1 |
| 34       NSMCE4A       FAM13C1       CAPN3       SP2         35       NEK7       GEMIN8       KIAA0319       TBC1D2         36       ASCC1       INSM2       PDXK       OPRL1         37       FUSIP1       ADCY5       FAM38B       POLR2I         38       KIAA1217       SUPV3L1       FN3KRP       MTP18         39       C20orf46       PPIE       FBXW7       HNRPK  | 32 | DYRK4         | LDLRAP1   | YAF2     | TMEM140  |
| 35         NEK7         GEMIN8         KIAA0319         TBC1D2           36         ASCC1         INSM2         PDXK         OPRL1           37         FUSIP1         ADCY5         FAM38B         POLR2I           38         KIAA1217         SUPV3L1         FN3KRP         MTP18           39         C20orf46         PPIE         FBXW7         HNRPK   | 33 | ST3GAL3       | RALBP1    | PHF5A    | C1orf135 |
| 36       ASCC1       INSM2       PDXK       OPRL1         37       FUSIP1       ADCY5       FAM38B       POLR2I         38       KIAA1217       SUPV3L1       FN3KRP       MTP18         39       C20orf46       PPIE       FBXW7       HNRPK  | 34 | NSMCE4A       | FAM13C1   | CAPN3    | SP2      |
| 37 FUSIP1       ADCY5       FAM38B       POLR2I         38 KIAA1217       SUPV3L1       FN3KRP       MTP18         39 C20orf46       PPIE       FBXW7       HNRPK  | 35 | NEK7          | GEMIN8    | KIAA0319 | TBC1D2   |
| 38         KIAA1217         SUPV3L1         FN3KRP         MTP18           39         C20orf46         PPIE         FBXW7         HNRPK  | 36 | ASCC1         | INSM2     | PDXK     | OPRL1    |
| 39 C20orf46 PPIE FBXW7 HNRPK   | 37 | FUSIP1        | ADCY5     | FAM38B   | POLR2I   |
|  | 38 | KIAA1217      | SUPV3L1   | FN3KRP   | MTP18    |
| 40 MGC3731 PEMT MGC3207 NVL  | 39 | C20orf46      | PPIE      | FBXW7    | HNRPK    |
|  | 40 | MGC3731       | PEMT      | MGC3207  | NVL      |

Table 4: (Unique genes Cerebellum continued)

| _  |           |          |          |           |
|----|-----------|----------|----------|-----------|
| 41 | DOLPP1    | CRYAB    | HPS5     | AGPAT4    |
| 42 | CLASP1    | ZNF277P  | MAL      | C18orf54  |
| 43 | APOD      | CNOT4    | SFT2D3   | EPB41L2   |
| 44 | PIGO      | C6orf106 | RHOG     | KIAA0100  |
| 45 | NAPE-PLD  | APIP     | HNRPDL   | LIPT1     |
| 46 | LOC732402 | TTF2     | C10orf39 | PRRG1     |
| 47 | DPP3      | NPC1     | STMN1    | C14orf122 |
| 48 | NCAPD2    | LSM7     | PPAP2C   | CHMP2B    |
| 49 | FBXO31    | SAV1     | SLC39A6  | DPF2      |
| 50 | STX16     | EIF1     | FUNDC2   | SPTLC1    |
| 51 | SEC61B    | DACH1    | El24     | DDX28     |
| 52 | PDE4A     | MGC59937 | HIATL2   | DUSP3     |
| 53 | KIF6      | TMEM46   | SLC13A3  | GPR3      |
| 54 | C20orf149 | PIGN     | ARID1A   | CKMT2     |
| 55 | MGC16169  | SYVN1    | ATP5G2   | ALS2CR2   |
| 56 | FLJ14803  | TMED4    | ADCY9    | TBC1D5    |
| 57 | PIP5K2A   | DDX5     | ZFYVE26  | C8orf72   |
| 58 | KRAS      | RDX      | SLC9A1   | CUTC      |
| 59 | PCM1      | ZNF536   | PEX26    |           |