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Supplemental information

Microglia-containing cerebral organoids derived from induced pluripotent stem cells for the study of neurological diseases

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Supplementary Figures

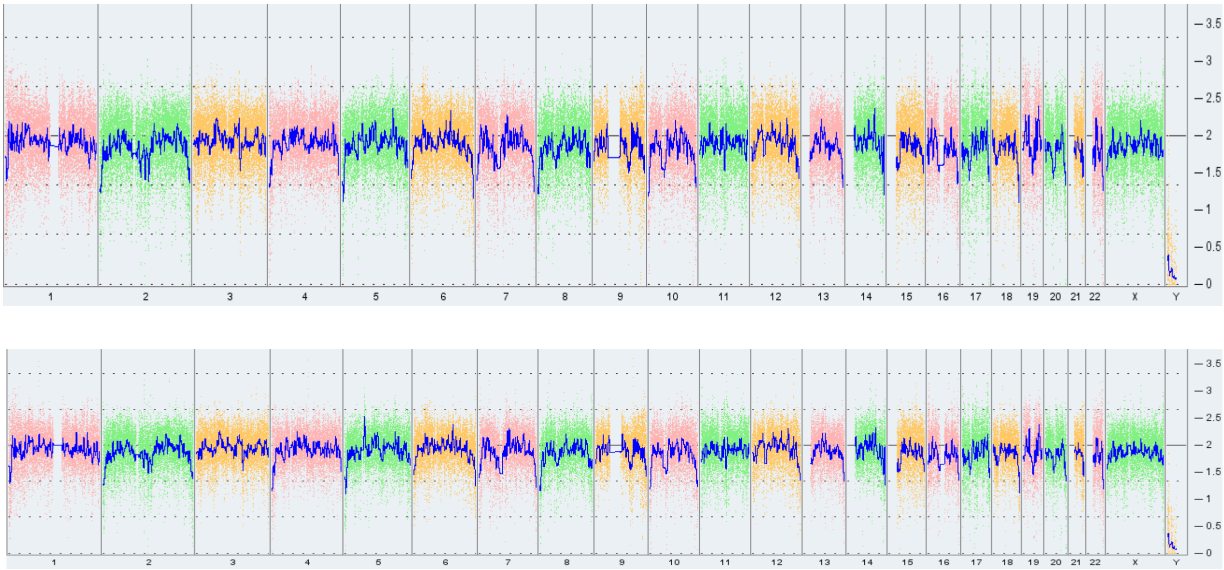

Figure S1, related to figure 2. Karyotyping in whole genome views. KaryoStat-based analysis revealed that the sample originated from a female. No chromosomal aberrations were found either in ALS-PDC-affected or ALS-PDC-unaffected iPSCs. The whole-genome view displays all somatic and sex chromosomes in one frame with high-level copy number. The smooth signal plot (right *y*-axis) is the smoothing of the log2 ratios that depict the signal intensities of probes in the microarray. A value of 2 represents a normal copy number state (*CN*=2). A value of 3 represents chromosomal gain (*CN*=3). A value of 1 represents chromosomal loss (*CN*=1). The pink, green, and yellow colors indicate the raw signal for each chromosome probe; the blue signal represents the normalized probe signal used to identify copy number and aberrations (if any). The top panel refers to ALS-PDC-unaffected iPSCs and the bottom panel to ALS-PDC-affected iPSCs.

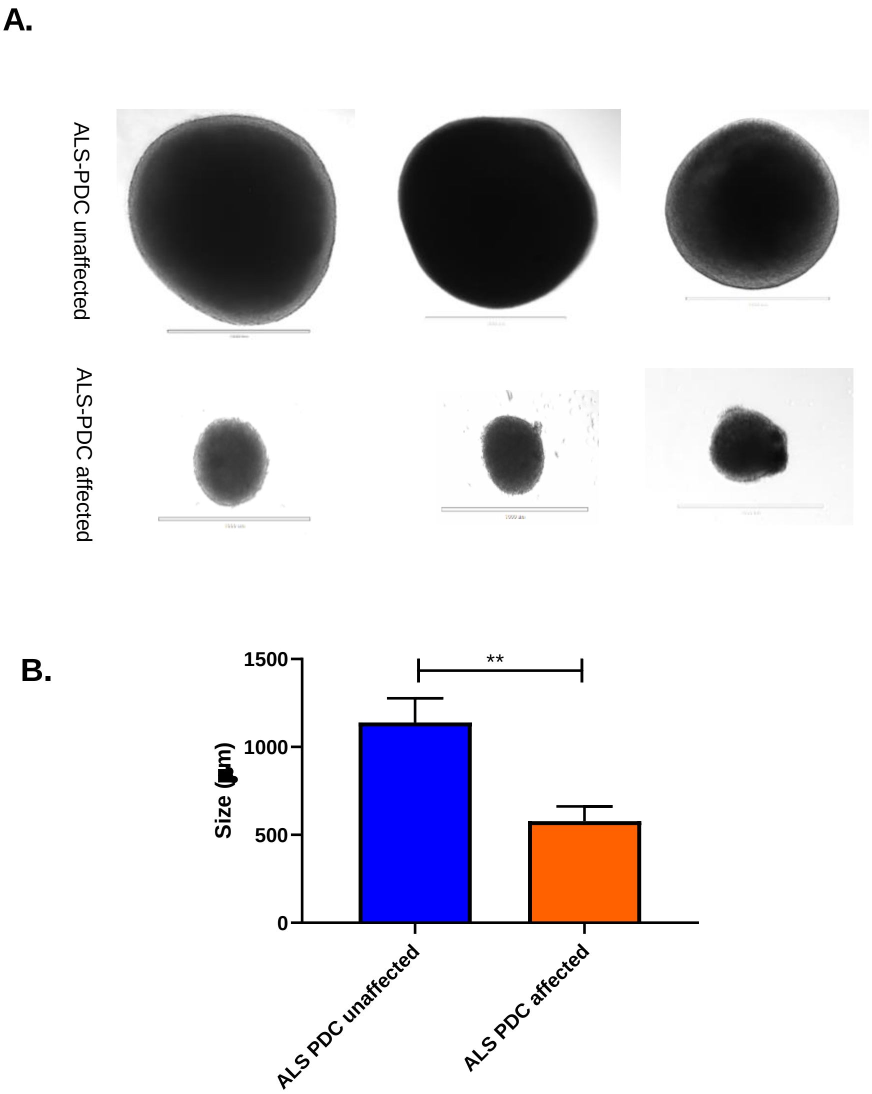

Figure S2, related to figure 2. Organoid size comparisons. (A) Phase-contrast images of selected ALS-PDC-affected and -unaffected organoids. **(B)** Quantification of organoid size. All data were obtained from three separate images and compared to the ALS-PDC-unaffected conditions: $^{**}p<0.01$, error bars=SEM.

Table S1, related to figure 6. Primers used for the qPCR analyses

Gene	Forward	Reverse
PNPO	AGGCTGTTCAGTGTCCTGAC	AACATGCGAGCAGAGGGTTT
INF-α	GACTCCATCTTGGCTGTGA	TGATTTCTGCTCTGACAACCT
INF-β	CAACTTGCTTGGATTCCTACAAAG	TATTCAAGCCTCCCATTCAATTG
INF-ρ	TGGCTTTTCAGCTCTGCATC	CCGCTACATCTGAATGACCTG
IFNAR1	GTGATACACATCTCTCCTGG	GTATAATCCCATTTAAGAACATAG
IFNAR2	GAGTAAACCAGAAGATTTGAAG	CGTGTTTGGAATTAACTTGTC
MDA5/ IFIH1	AGAGTGGCTGTTTACATTGCC	GCTGTTCAACGTAGCAGTACCTT
IFITM1	ACTCCGTGAAGTCTAGGGACA	TGTCACAGAGCCGAATACCAG
IFITM2	ATTGTGCAAACCTTCTCTCCTG	ACCCCCAGCATAGCCACTTCCT
TGFβ1	CAATTCCTGGCGATACCTCAG	GCACAACTCCGGTGACATCAA
TGFβ2	CAGCACACTCGATATGGACCA	CCTCGGGCTCAGGATAGTCT
IL34	AAGGTGGAATCCGTGTTGTCC	AGCTTTGTTTACAGCAGGAGC
Col9A2	TCCCTGGTGAGATTGGAATCC	TTGGTTGGACACAGGAAATCC
IL1β	ATGATGGCTTATTACAGTGGCAA	GTCGGAGATTCGTAGCTGGA
TNFα	CCTCTCTCTAATCAGCCCTCTG	GAGGACCTGGGAGTAGATGAG
iNOS	GCAGAATGTGACCATCATGG	ACAACCTTGGTGTTGAAGGC
ROS	TTGTTATGCACCCATCCAAA	CCTGCTGCTCGGATATGAAT
Glast	TGTGGAGCAGCACTGATTTC	AGCCAAACCTCCTCTTTGGT
Iba1	ATGAGCCAAACCAGGGATTTAC	GGGATCGTCTAGGAATTGCTTGT