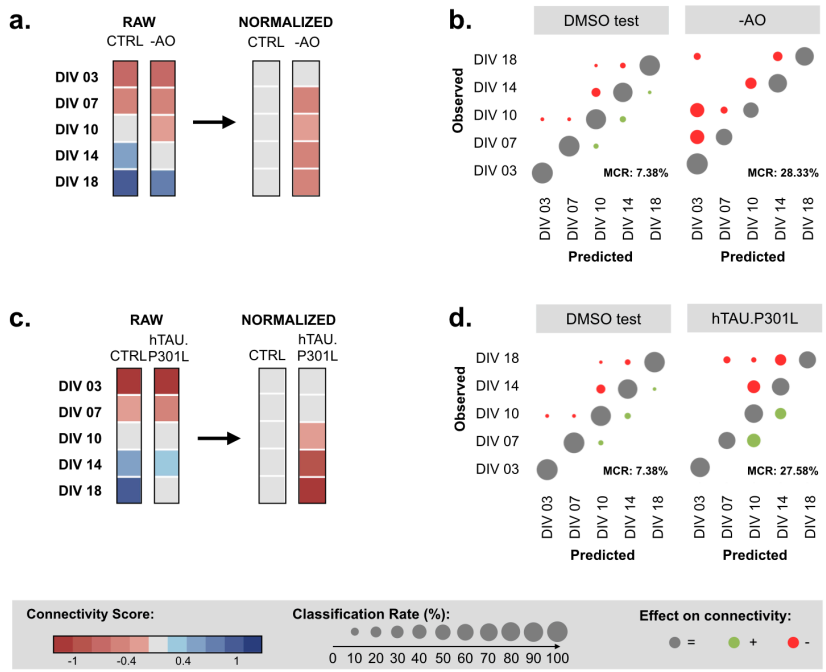

Additional file 12: **Figure S11.** Impaired neuronal connectivity in suboptimal conditions. **(a)** Connectivity scores indicated that antioxidant deprivation (-AO) in primary cultures had a negative impact on neuronal network connectivity form 7 DIV onwards (Morph.: $n_{bio} = 2$ x $n_{tech} = 6$ - Func.: $n_{bio} = 2$ x $n_{tech} = 9$); **(b)** A RFC that was trained on morphological data of pooled DMSO treated cultures confirmed the negative impact of antioxidant deprivation (red) ($n_{bio} = 2$ x $n_{tech} = 6$); **(c)** Cultures overexpressing hTau.P301L, showed a decreasing neuronal connectivity from 10 DIV (Morph.: $n_{bio} = 2$ x $n_{tech} = 12$ - Func.: $n_{bio} = 2$ x $n_{tech} = 9$); **(d)** Classification results based on morphological data confirmed the negative effect of hTau.P301L overexpression on neuronal connectivity (red) ($n_{bio} = 2$ x $n_{tech} = 12$).