



Additional file 9: **Figure S8**. Connectivity scores are sensitive to changes in dendrite, synapse, nuclear and functional descriptors. **(a)** Connectivity scores of MK801-treated cultures showed greater differences with DMSO-treated cultures at later time points when based on the integrated dataset when compared to the scores only based on morphological data. (Morph.: $n_{\text{bio}} = 3 \times n_{\text{tech}} = 5$ - Func.: $n_{\text{bio}} = 3 \times n_{\text{tech}} = 6$); **(b)** Connectivity scores of AraC treated cultures revealed greater connectivity impairments in comparison with DMSO treated cultures when including nuclear descriptors (Morph.: $n_{\text{bio}} = 3 \times n_{\text{tech}} = 6$ - Func.: $n_{\text{bio}} = 3 \times n_{\text{tech}} = 6$).