	Accuracy	F1	Initialization	Batch	Epochs	Architecture
0	90,7%	90,7%	Default algorithm	32	200	4 layers
1	91,1%	91,1%	Default algorithm	64	200	4 layers
2	91,1%	91,1%	Default algorithm	32	500	4 layers
3	91,1%	91,1%	Default algorithm	64	500	4 layers
4	91,1%	91,2%	Pre-trained CAE	32	200	4 layers
5	91,3%	91,4%	Pre-trained CAE	64	200	4 layers
8	90,6%	90,6%	Default algorithm	32	200	5 layers
9	90,6%	90,6%	Default algorithm	64	200	5 layers
10	90,7%	90,7%	Default algorithm	32	500	5 layers
11	90,8%	90,8%	Default algorithm	64	500	5 layers
12	90,8%	90,9%	Pre-trained CAE	32	200	5 layers
13	91,5%	91,6%	Pre-trained CAE	64	200	5 layers

Supplementary Table 1 - Classification performance (Accuracy and F1-score) of models trained on HCP dataset with different hyperparameters (batch size, epochs, architecture). Best model for the Default algorithm initialization is a 4-layers architecture, a batch size of 32 for 200 epochs. For the pre-trained CAE, best model was the one with a 5-layers architecture, a batch size of 64 and 200 epochs.