

Cell Line	Model	PCC Mean	PCC Standard Deviation
E116	GC-MERGE	0.766	0.001
	Shuffled	0.762	0.002
	CNN	0.756	0.004
	MLP	0.761	0.001
	RF-reg	0.760	0.001
E123	GC-MERGE	0.786	0.001
	Shuffled	0.779	0.001
	CNN	0.762	0.004
	MLP	0.780	0.001
	RF-reg	0.785	0.001
E122	GC-MERGE	0.758	0.001
	Shuffled	0.739	0.002
	CNN	0.717	0.004
	MLP	0.737	0.002
	RF-reg	0.734	0.001

Table S5: **Model comparisons by PCC score for the regression task.** GC-MERGE as well as the alternative deep learning baselines - shuffled, CNN, and MLP - are described in the main text. In addition, we include another deep learning baseline, a random forest regression model (RF-reg). GC-MERGE consistently achieves higher performance than all other baselines.