Evaluating the utility of brightfield image data for mechanism of action prediction

Table S1. Comparison of the results for three model runs with different seeds when DMSO plate-level normalization was applied to the data.

(a) Mean and standard deviation of the Macro-F1 scores on the test sets for the five data splits.

	$\mathrm{BF}_{\mathrm{dmso}}$	$\mathrm{FL}_{\mathrm{dmso}}$
Split 1	0.734 ± 0.005	$0.765{\pm}0.009$
Split 2	$0.819{\pm}0.004$	0.807 ± 0.006
Split 3	0.723 ± 0.001	$0.782{\pm}0.008$
Split 4	0.689 ± 0.015	$0.744{\pm}0.008$
Split 5	0.720 ± 0.009	$0.743{\pm}0.020$

(b) Mean and standard deviation of the F1 scores per MoA on the test sets.

	BF_{dmso}	FL_{dmso}
ATPase-i	0.622 ± 0.012	$0.728 {\pm} 0.020$
AuroraK-i	0.681 ± 0.002	$0.711{\pm}0.028$
HDAC-i	0.753 ± 0.003	$0.786{\pm}0.011$
HSP-i	$0.741{\pm}0.009$	0.720 ± 0.011
$_{ m JAK-i}$	0.662 ± 0.010	$0.668{\pm}0.010$
PARP-i	0.889 ± 0.005	$0.905{\pm}0.014$
Prot.Synthi	0.682 ± 0.021	$0.772{\pm}0.015$
Ret.Rec.Ag	0.743 ± 0.005	$0.764{\pm}0.004$
Topoi	$0.755{\pm}0.020$	0.719 ± 0.007
Tub.Poli	$0.882{\pm}0.005$	0.857 ± 0.003
DMSO	0.773 ± 0.013	$0.867{\pm}0.006$
Macro average	0.744 ± 0.005	$0.772{\pm}0.005$