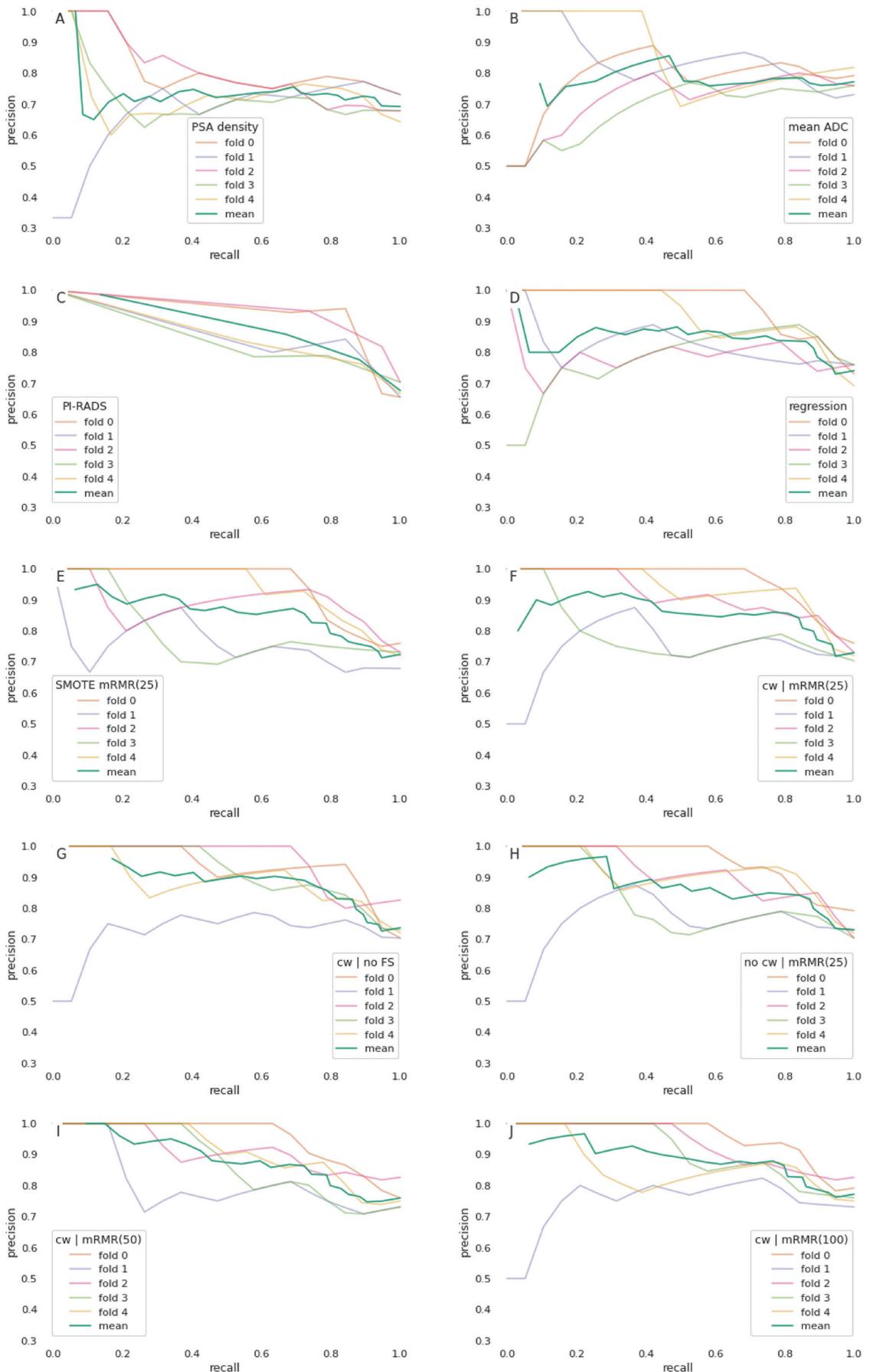**Figure S1** Precision-recall curves for clinical parameters and radiomic models. (A-C) PR curves for imaging-based biomarkers PSAD, mean ADC and PI-RADS. (D-J) Trained radiomics models with shorthands from *Table 1* in the main manuscript. Dashed lines show PR curves for each of the five CV iterations. Solid green line shows the mean ROC curve over all five CV iterations.

Table S1 Maximum Youden's index for clinical scores PSA density, mean ADC and PI-RADS, for regression and the random forest models

	PSA density	mean ADC	PI-RADS	Regression	SMOTE mRMR(25)	cw | mRMR(25)	cw | no FS	no cw | mRMR(25)	cw | mRMR(50)	cw | mRMR(100)
Max Youden's (mean)	0.35	0.49	0.53	0.61	0.54	0.59	0.62	0.58	0.55	0.60
Max Youden's (1)	0.45	0.54	0.74	0.74	0.74	0.74	0.79	0.69	0.68	0.74
Max Youden's (2)	0.45	0.54	0.54	0.45	0.32	0.39	0.39	0.44	0.44	0.49
Max Youden's (3)	0.29	0.45	0.63	0.51	0.68	0.61	0.74	0.61	0.57	0.57
Max Youden's (4)	0.18	0.33	0.35	0.67	0.29	0.40	0.57	0.40	0.42	0.57
Max Youden's (5)	0.39	0.60	0.39	0.69	0.68	0.79	0.62	0.73	0.63	0.63