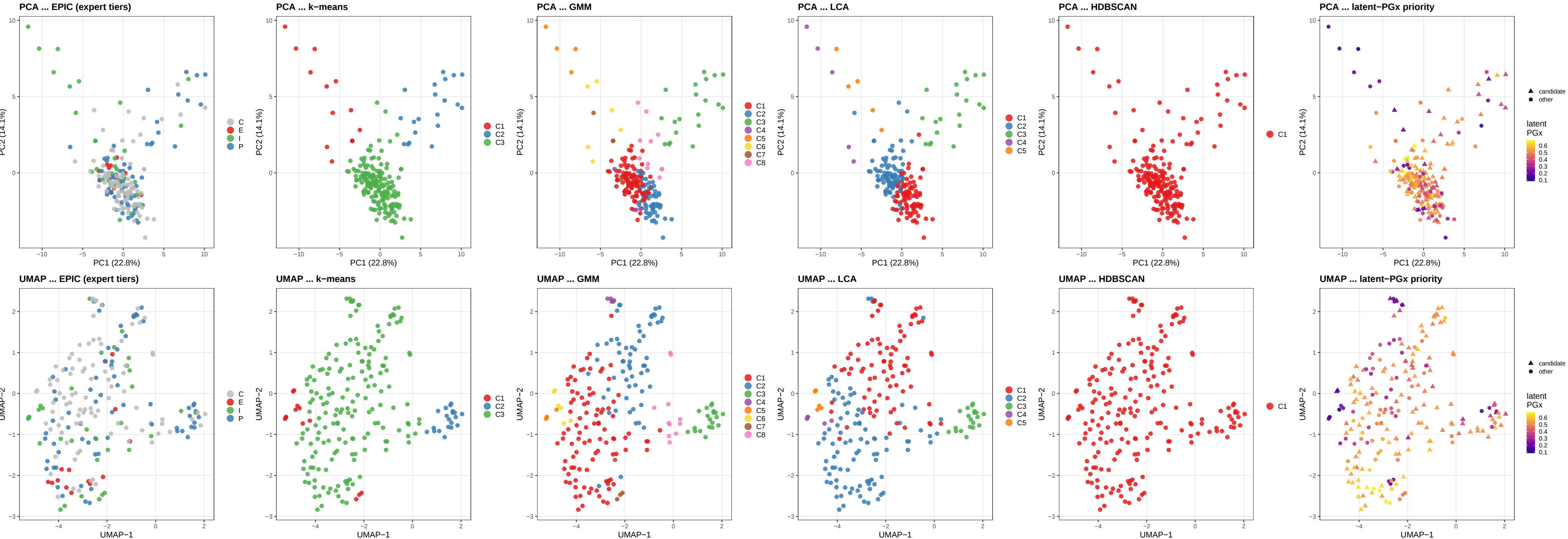
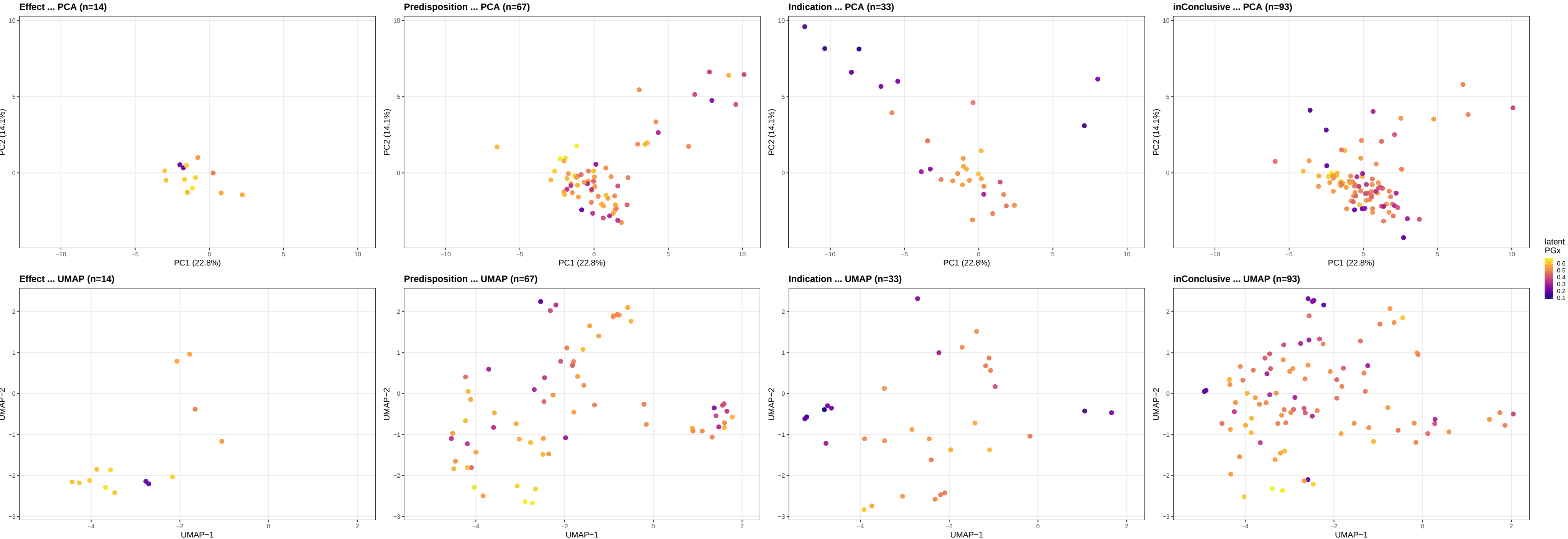


ABM Atlas ... PCA & UMAP projections of 207 locus×phenotype associations (27–feature self–contained model, locus–collapsed)

Top: PCA. Bottom: UMAP. Columns: expert EPIC tiers, four unsupervised classifiers, and the continuous latent–PGx prioritisation score (triangles = gated candidates).

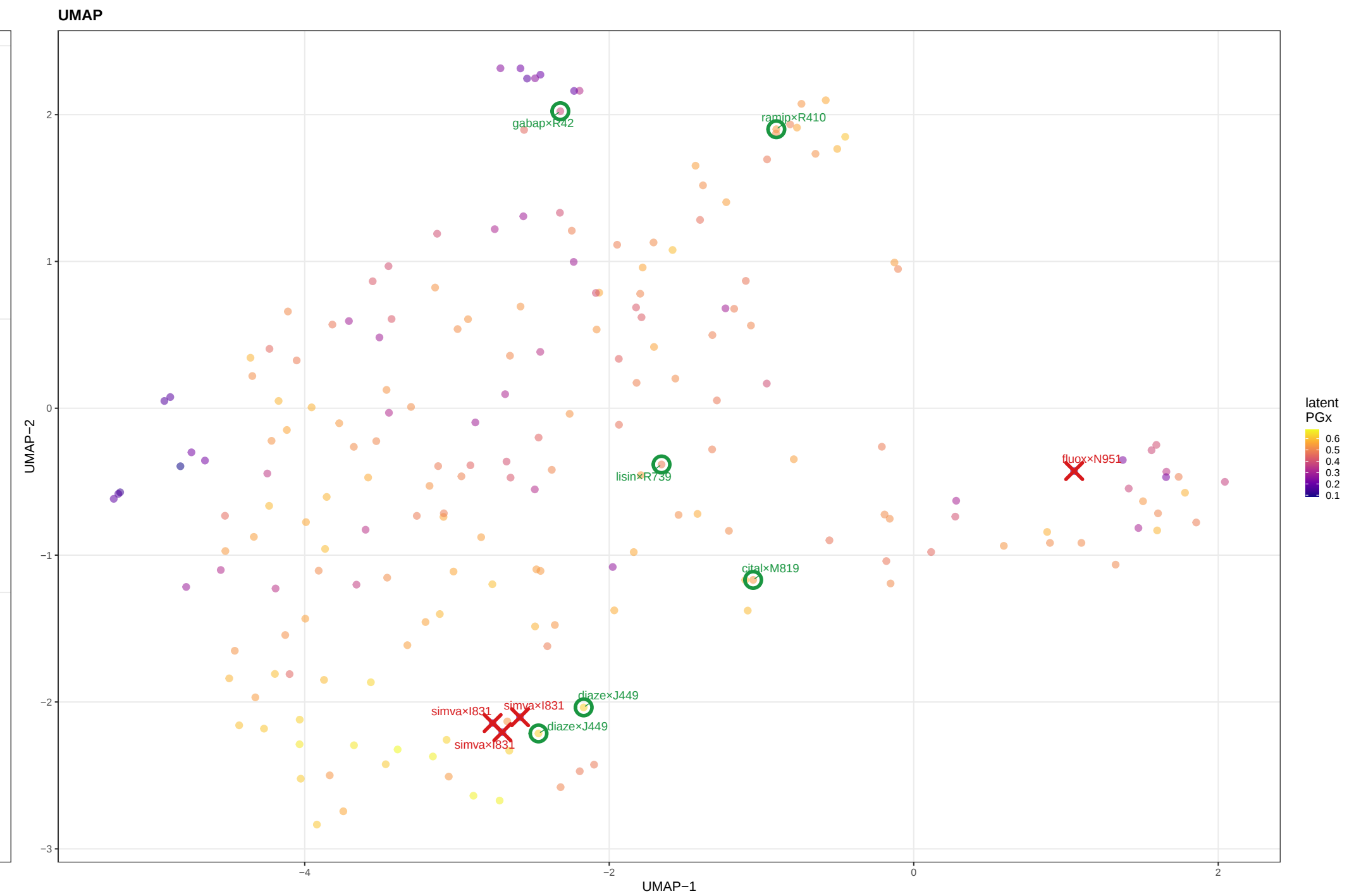
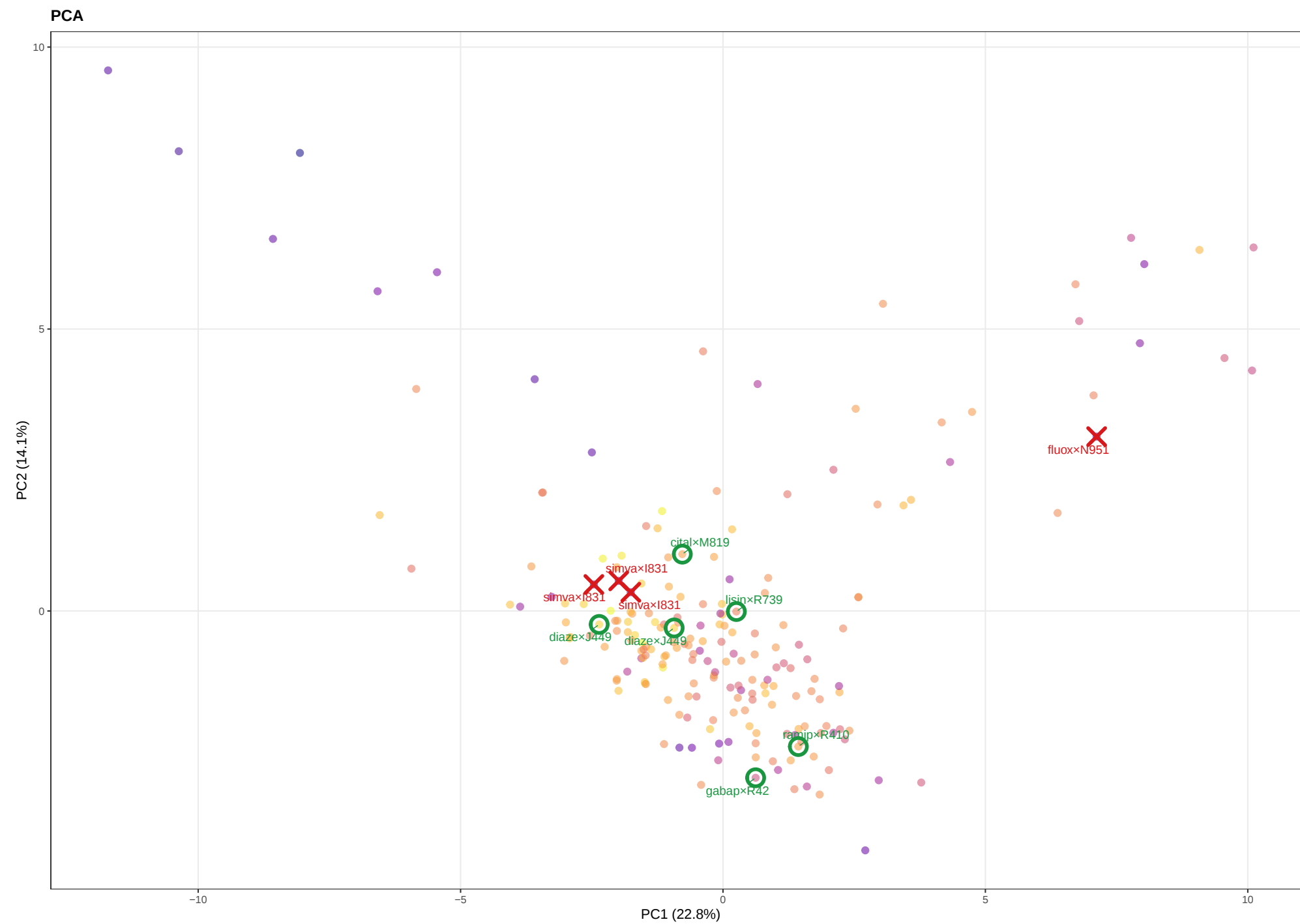


Expert EPIC classes coloured by latent-PGx score
Each panel shows only the named expert class (top: PCA, bottom: UMAP); shared latent-PGx colour scale and axes.



Curated associations marked on the latent-PGx landscape

Green circles = GOOD (target ADRs under review). Red crosses = BAD (expert-flagged comorbidity / indication). Fill = latent-PGx score.



ABM Atlas ... cluster names, EPIC overlap and description (v20, 34-feature model)

EPIC: E=Effect P=Predisposition I=Indication C=inConclusive. Overlap = % of each cluster's members falling in each expert EPIC tier.

Method	CI	n	Cluster name	EPIC	EPIC overlap % (E/P/I/C)	Description
KMEANS	C1	13	Indication (pleiotropic)	I	E 0 / P 8 / I 69 / C 23	NA
KMEANS	C2	20	Rare-variant predisposition	P	E 0 / P 65 / I 10 / C 25	NA
KMEANS	C3	174	Mixed background	P	E 8 / P 30 / I 13 / C 49	NA
GMM	C1	97	Mixed background	P	E 10 / P 29 / I 11 / C 50	NA
GMM	C2	60	Predisposition-leaning	P	E 7 / P 37 / I 13 / C 43	NA
GMM	C3	20	Rare-variant predisposition	P	E 0 / P 65 / I 10 / C 25	NA
GMM	C4	5	Weak-evidence residual	C	E 0 / P 20 / I 20 / C 60	NA
GMM	C5	4	On-label indication	I	E 0 / P 0 / I 100 / C 0	NA
GMM	C6	6	Mixed background	I	E 0 / P 17 / I 33 / C 50	NA
GMM	C7	4	On-label indication	I	E 0 / P 0 / I 100 / C 0	NA
GMM	C8	11	Weak-evidence residual	C	E 0 / P 18 / I 9 / C 73	NA
LCA	C1	84	Weak-evidence residual	P	E 4 / P 31 / I 10 / C 56	NA
LCA	C2	93	Mixed background	P	E 12 / P 29 / I 18 / C 41	NA
LCA	C3	20	Rare-variant predisposition	P	E 0 / P 65 / I 10 / C 25	NA
LCA	C4	5	Indication (pleiotropic)	I	E 0 / P 20 / I 60 / C 20	NA
LCA	C5	5	Indication (pleiotropic)	I	E 0 / P 0 / I 60 / C 40	NA
HDBSCAN	C1	207	Mixed background	P	E 7 / P 32 / I 16 / C 45	NA