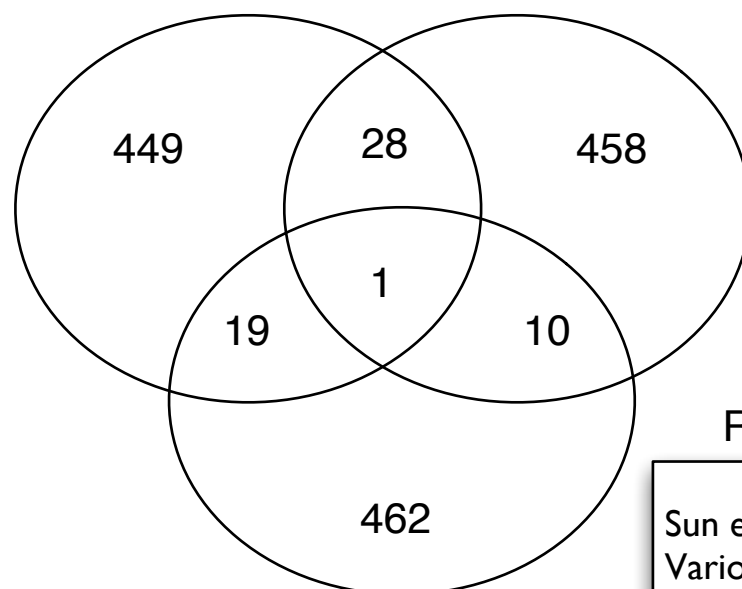


a

## Breast Cancer (GSE20711)

Dedeurwaerder et al.  
Diseased tissue  
87 samples (42ER+/45ER-)



## C-MAP (ISDB6354)

Lamb et al.  
Perturbagen applied to cell lines  
13 samples (8ER+/5ER-)

## RNA-Seq (GSE27003)

Sun et al.  
Various cell lines  
8 Samples (4ER+/4ER-)

b

Gene Set Name [# Genes (K)]	Description	# Genes in Overlap (k)	k/K	p value ?
SMID_BREAST_CANCER_BASAL_DN [713]	Genes down-regulated in basal subtype of breast cancer samples.	23		0 e <sup>0</sup>
FARMER_BREAST_CANCER_BASAL_VS_LUMINAL [335]	Genes which best discriminated between two groups of breast cancer according to the status of ESR1 and AR [Gene ID=2099, 367]: basal (ESR1- AR-) and luminal (ESR1+ AR+).	19		0 e <sup>0</sup>
SMID_BREAST_CANCER_LUMINAL_B_UP [175]	Genes up-regulated in the luminal B subtype of breast cancer.	13		2.22 e <sup>-16</sup>
DOANE_BREAST_CANCER_ESR1_UP [114]	Genes changed in breast cancer samples according to the ESR1 [Gene ID=2099] status: ER positive vs ER negative tumors.	10		1.8 e <sup>-13</sup>
FARMER_BREAST_CANCER_APOCRINE_VS_LUMINAL [329]	Genes which best discriminate between two groups of breast cancer according to the status of ESR1 and AR [Gene ID=2099, 367]: apocrine (ESR1- AR+) and luminal (ESR1+ AR+).	11		3.72 e <sup>-10</sup>