Fig 5. Examples of four human cancer biomedical data sets organized by primary bioentity and data layer. Data are from a combination of database and API resources [13, 14, 24-33]. Dashed lines link transposed data. Gene **Drug+Chemical Cell line** SNP x Disease/Tissue x Disease/Tissue x Gene x Drug+Chemical Primary data layer Disease/Tissue Disease/Tissue Gene **Drug+Chemical** DrugBank CancerRX **RNAseqDB COSMIC** Φ **Pharos** ene ell line SNP **TCGA TCGA** cell line-compound pairs MyChem.info **GTEx** ClinVar NCI60 **OMIM** Cancer Therapeutid Bgee Response Portal Disease/tissue Disease Drug+Chemical Gene Accessory data layer I DrugBank CancerRX **COSMIC Pharos** COSMIC DrugBank Gene **TCGA** SNP **TCGA** MyChem.info **Pharos CCLE** ClinVar MyChem.info **GEMICCL OMIM** Cancer Therapeutic NCI60 Response Portal RACSs/CNVs/ Phenotype BEMs/SNPS SNP Cell line Accessory data layer II bio CancerRX **COSMIC** CancerRX link Cell line Gene 224,000 **TCGA** SNP cell line-compound pairs NCI60 ClinVar **OMIM** & ENSEMBL **CNV** Drug SNP Methylation Accessory data layer III Database of MethBank Gene Genomic **Sell line COSMIC COSMIC** iMethyl **Variants** CancerDR CancerDR **Human Structural** Cancer Cell Variation Database Line Encyclopedia