Tertiary analysis (interpatient comparison of CM- lines)

*Overview of genomic landscape of PDOs*

* ~~Summary plot of genetic alterations commonly found in PDAC (Driehius Fig. 2, Seino Fig. 1D, Tiriac Fig. 1C)~~
  + Categorisation of genomic alterations in PDAC based on pathways from published literature <https://www-gastrojournal-org.libproxy1.nus.edu.sg/article/S0016-5085%2819%2932505-3/fulltext>
* Summary plot of copy number variation (Tiriac Fig. 1D, Fig S2)
* Circos plots of individual PDOs
  + SNV, indels, CNV
* ~~Unsupervised clustering of genomic profiles of PDOs (Driehuis Fig. S7)~~
* ~~Tumour purity~~
  + [~~https://bioconductor.org/packages/release/bioc/html/PureCN.html~~](https://bioconductor.org/packages/release/bioc/html/PureCN.html)
* Comparison of mutational profiles with COSMIC signatures
  + Reference example <https://www.frontiersin.org/articles/10.3389/fgene.2019.00439/full>
* Analysis of molecular profile of PDOs generated using different culture mediums
  + I’ve annotated Driehuis Fig. S4 with the tumour mediums used as detailed in their Table S1. I’ve labelled the individual samples with 1 and 2, which correspond to our T1 and T2 media.

A picture containing text, screenshot, diagram

Description automatically generated

*Other potential predictors of chemotherapeutic sensitivity*

* Tumour mutational burden
  + Classification into TMB-low (≤5 mut/Mb), TMB-intermediate (≥6 mut/Mb but <20 mut/Mb), TMB-high (≥20 mut/Mb) based on criteria for other tumour types <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5670009/>
* Homologous recombination deficiency
  + Annotation of 102 HRR genes. HRR score previously shown to predict sensitivity to platinum therapy <https://ascopubs.org/doi/10.1200/JCO.2020.38.4_suppl.741>
  + HRD score <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7750421/>
  + HRDetect score <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5833945/>