## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Data and clinical information including cancer type, PDX model, passage, clinical

info, sequence QC, tumor purity, MSI score and so on.

File Name: Supplementary Data 2.

Description: Model ids, cancer type, similarity score, germlineQC score for 27 low similarity

models.

File Name: Supplementary Data 3.

Description: Candidate PDX models and genomic events, matched to NCI-MATCH study arms

and treatments.

File Name: Supplementary Data 4

Description: The reported and potentially novel druggable alterations.

File Name: Supplementary Data 5

Description: Gene expression related genetic alterations and target arms per cancer type.

File Name: Supplementary Data 6

Description: Online resources to the represented PDX centers and models.