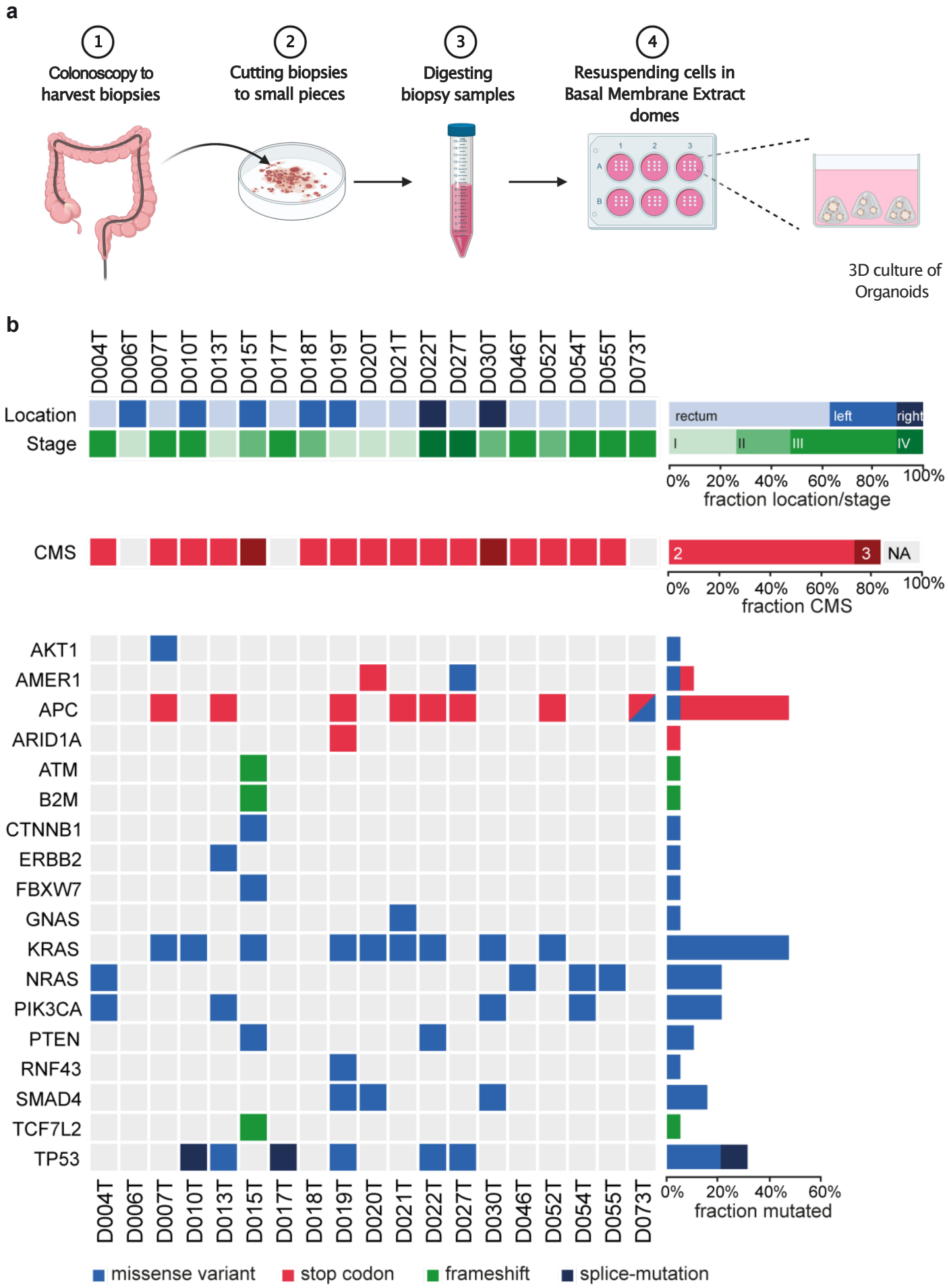
a
1
Colonoscopy to harvest biopsies
2
Cutting biopsies to small pieces
3
Digesting biopsy samples
4
Resuspending cells in Basal Membrane Extract domes
3D culture of Organoids
b
D004T D006T D007T D010T D013T D015T D017T D018T D019T D020T D021T D022T D027T D030T D046T D052T D054T D055T D073T
Location
Stage
rectum
left
right
I
II
III
IV
0% 20% 40% 60% 80% 100%
fraction location/stage
CMS
2
3
NA
0% 20% 40% 60% 80% 100%
fraction CMS
AKT1
AMER1
APC
ARID1A
ATM
B2M
CTNNB1
ERBB2
FBXW7
GNAS
KRAS
NRAS
PIK3CA
PTEN
RNF43
SMAD4
TCF7L2
TP53
0% 20% 40% 60%
fraction mutated
missense variant
stop codon
frameshift
splice-mutation