

Table S2. Clinical characteristics of the patients.

| Patient | Gender | Age | Tumor type | Stage at diagnosis | Samples's origin | Other remarks |
|----------------|--------|-----|-----------------------------|--------------------|-------------------------|---|
| Mel0011 | Male | 40 | Skin melanoma | pT3b pN0 M0, IIC | subcutaneous metastasis | BRAF mutation: previously treated with trametinib, dabrafenib, and ipilimumab |
| Mel002 | Male | 58 | Skin melanoma | pT1a pN0 M0, IA | lymph node metastasis | |
| Mel007 | Female | 52 | Skin melanoma | pT2 pN3 M0, IIIC | cutaneous metastasis | BRAF mutation |
| Lau50 | Male | 65 | Melanoma of unknown primary | pT4 N2c M0, IIIB | lymph node metastasis | BRAF mutation; Isolated Limb Perfusion with Melphalan, TNF- α and IFN- γ 2 years before surgery |
| Lau1015 | Male | 70 | Skin melanoma | pT2a N1b M1b, IV | lung metastasis | BRAF mutation; Vaccination with Melan-A natural and Tyrosinase peptides + CpG and Montanide adjuvants 1 year before surgery |
| Lau1660 | Male | 82 | Skin melanoma | pT3b pN3 M1c, IV | lymph node metastasis | |
| CRCm7 | Female | 71 | Colon adenocarcinoma | pT3 pN1 M1, IV | lung metastasis | KRAS mutation; Microsatellite stable |
| CRCm8 | Male | 68 | Colon adenocarcinoma | pT4 pN2 M1, IV | liver metastasis | NRAS mutation; MSS; previously treated with Folfixiri |
| CRCm9 | Male | 80 | Colon adenocarcinoma | pT3 pN0 M0, IIA | liver metastasis | MSS |
| CRCm10 | Male | 64 | Colon adenocarcinoma | pT3 pN0 M1, IV | Lung metastasis | KRAS mutation; MSS; previously treated with Folfiri-bevacizumab and radiofrequency on liver metastasis |
| URO334 | Male | 54 | no tumor | NA | Prostate | Normal prostate tissue (no BPH, no inflammation) |
| URO442 | Male | 70 | no tumor | NA | Prostate | Chronic prostatitis + BPH |
| URO476 | Male | 89 | prostate adenocarcinoma | Gleason 5+4=9 | Prostate | Prostate cancer + BPH |
| URO570 | Male | 72 | prostate adenocarcinoma | Gleason 3+3=6 | Prostate | Prostate cancer + BPH |
| URO575 | Male | 83 | prostate adenocarcinoma | Gleason 4+4=8 | Prostate | Prostate cancer + BPH |
| URO589 | Male | 70 | prostate adenocarcinoma | Gleason 3+3=6 | Prostate | Prostate cancer + BPH |
| URO372 | Male | 65 | no tumor | NA | Prostate | Normal prostate tissue (no BPH, no inflammation) |
| URO344 | Male | 73 | prostate adenocarcinoma | Gleason 4+5=9 | Prostate | Prostate cancer |

Microsatellite stable (MSS); Benign prostate hypertrophy (BPH)