

Table S1. - Main immune checkpoints antibodies approved for the treatment of solid tumours.

Immune checkpoint inhibitors	Immunoglobulin type	Target molecule	Tumour type
Ipilimumab (MDX-010)	IgG-1 κ	CTLA-4	Advanced melanoma (alone second-line or in combination with Nivolumab in first-line). Advanced renal cancer (in combination with Nivolumab in first-line). Advanced lung cancer (in combination with chemotherapy and Nivolumab in first-line). Advanced pleural mesothelioma (in combination with Nivolumab in first-line). Advanced dMMR colorectal cancer (in combination with Nivolumab in first-line). Advanced squamous oesophageal cancer (in combination with Nivolumab with PDL-1 $\geq 1\%$).
Pembrolizumab (MK-3475)	IgG-4 κ	PD-1	Advanced melanoma and adjuvant (alone). First-line metastatic NSCLC (alone in first PDL-1 $\geq 50\%$ or in combination with CT in PDL-1 $< 50\%$). Second line metastatic NSCLC (alone with PDL-1 $\geq 1\%$). Refractory Hodgkin lymphoma (alone). Advanced bladder cancer (alone in second-line). Advanced head and neck cancer (in first line in combination with CT in CPS ≥ 1 or monotherapy in CPS $\geq 50\%$). Advanced renal cancer (in combination with Lenvatinib or Axitinib) or in adjuvant. All dMMR solid tumours (alone in first-line). Advanced oesophageal cancer (plus CT in CPS $\geq 10\%$). Advanced triple negative breast cancer (plus CT in CPS $\geq 10\%$ or PDL-1+). Neoadjuvant and adjuvant triple negative breast cancer (plus CT). Advanced endometrial cancer (second-line with Lenvatinib). Advanced cervical cancer (first-line with CT +/- Bevacizumab in CPS ≥ 1).
Nivolumab (MDX-1106)	IgG4	PD-1	Advanced melanoma (plus CT or alone) and adjuvant (alone). First-line metastatic NSCLC (plus Nivolumab and CT). Second-line metastatic NSCLC (alone). Advanced pleural mesothelioma (in combination with Ipilimumab). Advanced renal cancer (first-line with Ipilimumab or Cabozantinib and second-line alone). Refractory Hodgkin lymphoma (alone). Advanced bladder cancer (alone in second-line). Advanced head and neck cancer (alone in second-line).

			Advanced dMMR colorectal cancer (in combination with Ipilimumab). Advanced oesophageal cancer (plus CT or alone or plus Ipilimumab).
Atezolizumab (MPDL3280A)	IgG1	PD-L1	Advanced bladder cancer (alone in second line). Metastatic NSCLC (in first-line in combination with CT and Bevacizumab or in second-line alone). Advanced SCLC (in first-line plus CT).
Durvalumab (MEDI4736)	IgG1	PD-L1	Locally advanced unresectable non-small cell lung cancer (after CT/RT with PDL-1 $\geq 1\%$ in tumour cells). Advanced SCLC (in first-line plus CT). Advanced hepatocellular carcinoma (in first-line in combination with Tremelimumab).
Avelumab (MSB0010718C)	IgG1	PD-L1	Metastatic Merkel cell carcinoma (alone). Advanced urothelial cancer in maintenance after CT in first-line. Advanced renal cancer (plus Axitinib in first-line).
Cemiplimab (REGN-2810)	IgG4	PD-1	Advanced squamous cell carcinoma (first-line alone). Advanced nasal-cell carcinoma (after or not tolerance to Vismodegib). Advanced NSCLC (alone in first-line in PDL-1 $\geq 50\%$)
Dostarlimab (TSR-042)	IgG4	PD-1	Advanced dMMR endometrial cancer (alone in second-line).
Tremelimumab (CP-675)	IgG2	CTLA-4	Advanced hepatocellular carcinoma (in first-line in combination with Durvalumab).
Relatlimab (BMS-986016)	IgG4	LAG-3	Advanced melanoma (in combination with Nivolumab in first-line).*

*Abbreviations: CPS combined positive score; CT chemotherapy; CTLA-4 Cytotoxic T-Lymphocyte Antigen 4; CT/RT chemotherapy plus radiotherapy; dMMR deficient DNA mismatch repair system; LAG-3 Lymphocyte-activation gene 3; NSCLC non-small-cell lung cancer; PD-1 Programmed Death 1; PD-L1 Programmed Death-ligand 1; SCLC small-cell lung cancer.

Figure S1. – Flow diagram of the study.

