## SUPPLEMENTARY MATERIAL

Supplementary table 1: Medicines and Healthcare products Regulatory Agency indications of anti-programmed cell death protein 1 (PD-1) and anti-programmed cell death ligand 1 (PD-L1) monoclonal antibodies obtained 25<sup>th</sup> March 2023 (\* represents monotherapy indications and \*\* represents indications as part of combination therapy).

Molecular markers: epidermal growth factor receptor gene (*EGFR*), anaplastic lymphoma kinase gene (*ALK*), c-ros oncogene 1 gene (*ROS1*), deficient mismatch repair (dMMR), microsatellite instability high (MSI-H), combined positive score (CPS), tumour proportion score (TPS). Cancers: non-small cell lung cancer (NSCLC), head and neck squamous cell carcinoma (HNSCC), triple-negative breast cancer (TNBC), small cell lung cancer (SCLC).

| Target | Drug             | Cancer |  |   |  |   |         |          |
|--------|------------------|--------|--|---|--|---|---------|----------|
|        |                  | Breast | Colorectal   | Head and neck   | Lung   | Melanoma  | Ovarian | Prostate |
| PD-1   | Cemiplimab (13)  | -      | -  | -   | • Metastatic or<br>locally advanced<br>PD-L1 ≥ 50%<br>TPS<br>NSCLC (EGFR,<br>ALK, ROS1<br>wildtype)*                           | -   | -       | -        |
|        | Dostarlimab (14) | -      | -  | -   | -  | -   | -       | -        |
|        | Nivolumab (15)   | -      | • dMMR/MSI-H<br>colorectal cancer<br>following<br>chemotherapy** | Metastatic or<br>recurrent HNSCC<br>following prior<br>treatment* | • Metastatic NSCLC (EGFR, ALK wild type)** • Metastatic or locally advanced NSCLC following chemotherapy* • Resectable NSCLC** | Metastatic or<br>unresectable<br>melanoma*.**     Metastatic or<br>lymph node<br>involved<br>melanoma<br>patients following<br>complete<br>resection* | -       | -        |

|       | Pembrolizumab (16)               | Locally advanced or early-stage TNBC with high risk of recurrence*.**     Metastatic or locally recurrent unresectable PD-L1 CPS ≥ 10 TNBC** | Treatment-naïve metastatic dMMR/MSI-H colorectal cancer* Metastatic or unresectable dMMR/MSI-H colorectal cancer following prior treatment* | Treatment-naïve metastatic or unresectable recurrent PD-L1 CPS ≥ 1 HNSCC***     Metastatic or recurrent PD-L1 TPS ≥ 50% HNSCC following prior chemotherapy* | Metastatic     NSCLC with PD-L1 ≥ 50% TPS     (EGFR, ALK     wild-type)*,***     Metastatic or     locally advanced     PD-L1 ≥ 1% TPS     NSCLC following     chemotherapy and     targeted therapy     (if applicable)*  | •Metastatic or<br>unresectable<br>melanoma*<br>•Completely<br>resected stage IIB,<br>IIC, III<br>melanoma* | - | _ |
|-------|----------------------------------|--|---|---|--|--|---|---|
| PD-L1 | Atezolizumab (17)  Avelumab (18) | • Metastatic or<br>locally advanced<br>PD-L1 ≥ 1% TPS<br>TNBC**  | -   |   | • Completely resected stage II- IIIA NSCLC with PD-L1 ≥ 50% and no progression on prior chemotherapy* • Metastatic nonsquamous NSCLC** • Metastatic NSCLC PD-L1 ≥ 50% TPS (EGFR, ALK wildtype)* • Metastatic or locally advanced NSCLC following chemotherapy and targeted therapy (if applicable)* • Treatment-naïve extensive stage SCLC** | -  | - | - |
|       |                                  |  |   |   |  |  |   |   |

| Durvalumab (19) | - | - | - | <ul> <li>Locally advanced</li> </ul> | - | - | - 1 |
|-----------------|---|---|---|--------------------------------------|---|---|-----|
| , ,             |   |   |   | unresectable PD-L1                   |   |   |     |
|                 |   |   |   | ≥ 1% TPS NSCLC                       |   |   |     |
|                 |   |   |   | without progression                  |   |   |     |
|                 |   |   |   | on chemoradiation*                   |   |   |     |
|                 |   |   |   | <ul> <li>Treatment-naïve</li> </ul>  |   |   |     |
|                 |   |   |   | extensive-stage                      |   |   |     |
|                 |   |   |   | SCLC**                               |   |   |     |