

Supplemental Table 1

| Set | Case | Clinical Details | Number of slides | Immunohistochemical stains | Diagnosis |
|-----|------|---|------------------|---|----------------------------------|
| A | 1 | 47-year-old female. Lung hilar mass. Multiple liver metastasis. | 8 | H&E, CD45, CD56, CHROMO, CK7, CK20, synaptophysin, TTF1 | Small cell carcinoma |
| | 2 | 68-year-old female. ?Gallbladder mass invading liver. | 6 | H&E, CK7, CK19, CK20, P63, TTF-1 | Carcinoma with squamous features |
| | 3 | 41-year-old male. Pancreatic mass. Multiple liver metastases. | 7 | H&E, CDX-2, CK7, CK20, ER, PR, TTF-1 | Adenocarcinoma |
| B | 1 | 58-year-old female. Liver metastases seen on CT. Previous breast carcinoma. | 6 | H&E, GCDFP-15, ER, PR, HER-2, HER-2 | Carcinoma |
| | 2 | 75-year-old male. ?Metastatic lung cancer | 8 | H&E, CAM 5.2, CD56, CK5, CK14, MNF, P63, TTF-1 | Squamous cell carcinoma |

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|--|---|---|---|--------------------------------------|----------------|
| | 3 | 76-year-old female. Admission with pain, hepatomegaly and weight loss. ?Metastatic or primary liver malignancy. | 7 | H&E, CDX-2, CK7, CK20, ER, PR, TTF-1 | Adenocarcinoma |
|--|---|---|---|--------------------------------------|----------------|

Supplemental Table 1 – Case details provided to the participants. Cases were chosen to include equal numbers of slides in each set. Please note the clinical details are fictitious in the interests of confidentiality.