

## Supplementary Figure Legends

**Supplementary Figure S1. Expression of JADE family member's mRNA in LUAD.** Using LCE and cProSite, the expression of the JADE family at the mRNA and protein level in LUAD was assessed for (A) JADE1 mRNA; (B) JADE1 protein; (C) JADE2 mRNA; (D) JADE2 protein; (E) JADE3 mRNA and (F) JADE3 protein.

**Supplementary Figure S2. Expression of JADE family member's mRNA in LUSC.** Using LCE and cProSite, the expression of the JADE family at the mRNA and protein level in LUSC was assessed for (A) JADE1 mRNA; (B) JADE1 protein; (C) JADE2 mRNA; (D) JADE2 protein; (E) JADE3 mRNA and (F) JADE3 protein.

**Supplementary Figure S3. Pan-Cancer analysis of JADE1 mRNA.** Using GEPIA2 a pan-cancer analysis of JADE1 mRNA was conducted that also incorporated GTEx normal tissue expression.

**Supplementary Figure S4. Pan-Cancer analysis of JADE2 mRNA.** Using GEPIA2 a pan-cancer analysis of JADE2 mRNA was conducted that also incorporated GTEx normal tissue expression.

**Supplementary Figure S5. Pan-Cancer analysis of JADE3 mRNA.** Using GEPIA2 a pan-cancer analysis of JADE3 mRNA was conducted that also incorporated GTEx normal tissue expression.

**Supplementary Figure S6. Pan-Cancer analysis of JADE family mRNA gene signature.** Using GEPIA2 a pan-cancer analysis of the combined JADE family gene mRNA signature mRNA was conducted that also incorporated GTEx normal tissue expression.

**Supplementary Figure S7. Identification of Ornidazole as a candidate drug for repurposing in NSCLC.** DepMap was used to analyze cell lines restricted solely to lung cancer, and identified ornidazole as a candidate drug linked to the expression of the mRNA for JADE2.

**Supplementary Figure S8. Prognostic value of JADE2 mRNA as measured by PFS in NSCLC.** The prognostic value of *JADE2* mRNA expression was assessed for progression free survival (PFS) using KM-Plotter . Higher expression of the mRNA for *JADE2* was associated with better PFS overall (A); which when stratified by tumor histology was limited to the LUAD subtype only (B); whilst no difference in PFS was observed for LUSC (C).  $p < 0.05$  was considered to be significant.