

Pankind 2026 Scientific Meeting

Poster Abstract Form

PemOla: A phase II study combining pembrolizumab with olaparib in metastatic pancreatic adenocarcinoma patients with mismatch repair deficiency or tumour mutation burden ≥ 4 mutations/Mb

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Introduction

A minority of patients with metastatic pancreatic adenocarcinoma (mPDAC) exhibit high tumour mutational burden (TMB) and/or deficient mismatch repair (dMMR). Unlike in other tumour types, single-agent immune checkpoint inhibitors (ICI) have demonstrated limited efficacy in mPDAC. [1] Emerging pre-clinical evidence suggest that Poly ADP-Ribose Polymerase (PARP) inhibitors may augment anti-cancer immunity, providing rationale for combining PARP inhibition with ICI. [2 – 4]

Methods and Results

PemOla (NCT05093231) is a prospective, phase II, single-arm, open-label trial conducted in collaboration between Cambridge University Hospitals NHS Foundation Trust (UK sponsor) and GI Cancer Trials (Australian sponsor). Eligible participants have stage IV mPDAC, tissue- or blood-based TMB ≥ 4 mutations/Mb and/or dMMR/MSI-high status, and received no more than one prior line of systemic therapy. Stratification factors include TMB level (4-10 vs ≥ 10 mutations/Mb) and line of therapy (1st vs 2nd). Participants receive pembrolizumab 200mg IV every 3 weeks and olaparib 300mg orally twice daily, until disease progression or maximum of 2 years. The primary endpoint is objective response rate. A sample size of 20 evaluable participants was calculated using a Bayesian optimal phase II design, with an interesting and uninteresting ORR of 45% and 20%, respectively. Secondary endpoints include safety, duration of response, progression-free survival, overall survival and patient-reported quality-of-life. Exploratory analysis will also be conducted, including molecular/immune biomarker discovery.

Conclusion

Through successful collaboration between the UK and Australia, the PemOla trial completed recruitment in August 2026, ahead of target. Results of the primary efficacy outcome measure will be published in 2027.

References

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