## 169P Selective induction of PD-L1 expression in plasma-derived exosomes by gemcitabine-nab-paclitaxel vs. FOLFIRINOX in pancreas cancer

E. Rofi[1], M. Del Re[2], C. Vivaldi[3], S. Crucitta[4], E. Arrigoni[1], G. Pasquini[5], S. Catanese[5], I. Pecora[5], G. Musettini[6], E. Vasile[7], A. Falcone[8], R. Danesi[9]

*[1]Department of Clinical and Experimental Medicine, Azienda Ospedaliera Universitaria S. Chiara, Pisa, Italy, [2]Clinical and Experimental Medicine, Università degli Studi di Pisa, Pisa, Italy, [3]Oncology, Azienda Ospedaliera Universitaria Pisana, Pisa, Italy, [4]Clinical and Experimental Medicine, Azienda Ospedaliera Universitaria S. Chiara, Pisa, Italy, [5]Department of Translational Research and New Technologies in Medicine and Surgery, University of Pisa, Pisa, Italy, [6]Department of Translational Research and New Technologies in Medicine and Surgery, Azienda Ospedaliera Universitaria S. Chiara, Pisa, Italy, [7]Medical Oncology Unit, Department of Translational Research and New Technologies in Medicine and Surgery, University of Pisa, Pisa, Italy, [8]Oncology, Azienda Ospedaliera Universitaria S. Chiara, Pisa, Italy, [9]Clinical and Experimental Medicine, University of Pisa, Pisa, Italy*

**Background:** Pancreatic ductal adenocarcinoma (PDAC) is considered a poorly immunogenic tumor and treatment with immune checkpoint inhibitors lacks efficacy in this disease. Recently, the use of immune checkpoint inhibitors with radiation therapy in PDAC has demonstrated synergistic activity. The aim of this study was to evaluate the effect of FOLFIRINOX and GEMnPAC on PD-L1 expression in plasma-derived exosomes of PDAC patients.

**Methods:** Four ml of plasma were obtained at baseline (before initiation of chemotherapy) and at the time of first radiological evaluation (3 months) from patients undergoing first-line FOLFIRINOX or GEMnPAC chemotherapy. Exosomes and RNA extraction from plasma were performed using the exoRNeasy kit (Qiagen®, Valencia, CA, USA); PD-L1 expression was evaluated by digital droplet PCR (Bio-Rad®, Hercules, CA, USA).

**Results:** A total of 22 pancreatic cancer patients were enrolled in this study; 15 (68.2%) were treated with GEMnPAC and 7 (31.9%) with FOLFIRINOX. In the GEMnPAC group one patient had a partial response (RP), 11 patients had stabilization of disease (SD) and 3 progressed (PD). In the FOLFIRINOX group there were 1 RP, 5 SD and 1 PD. Eleven patients treated with GEMnPAC had a significant increase of PD-L1 expression at 3 months vs. baseline. Indeed, the mean PD-L1 copies/ml was 90 at baseline and 170 at 3 months ($p = 0.02$). On the contrary, in the FOLFIRINOX group, PD-L1 levels were increased in 3 patients and remained stable/decreased in 4 subjects; the mean baseline copies/ml were 70 vs. 80 at 3 months ($p = 0.4$). The selective induction of PD-L1 expression was independent from tumor response.

**Conclusions:** These pilot data suggest that, due to its ability to increase PD-L1 expression, GEMnPAC regimen may be used as induction-treatment for immunotherapy in pancreatic cancer, either sequentially or concomitantly.

**Legal entity responsible for the study:** Romano Danesi.

**Funding:** Has not received any funding.

**Disclosure:** All authors have declared no conflicts of interest.