

FPN: 472P MEDIZINISCHE UNIVERSITÄT WIEN Prevention of metastasis formation by combination therapy targeting Her2 and PD-L1 in Her2expressing tumors based on observed efficacious vaccination against Her2-positive tumors Joshua Tobias^{*1}, Sandra Högler², Diego Shih-Chieh Lin³, Yee Chao³, Erika Garner-Spitzer¹, Nicholas J. Ede⁴,

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- resistance in a significant number of patients.
- gastro-esophageal junction cancer (GC) in the phase 1b and 2 HERIZON study (NCT02795988), ^{2,-4}.
- metastasis development following treatment with trastuzumab.





- higher ratio of PD-L1 to Her-2/neu positive metastases.
- influencing the disease progression observed in the patient.

These observations suggest that targeting Her-2/neu induces upregulation of PD-L1, and are clinically relevant for the elimination of tumor cells with a PD-L1 positive and Her-2/neu negative status and prevention of new metastasis development and immune evasion

The presenter, Joshua Tobias, declares no potential conflicts of interest.

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Conclusions

• Preclinical setting: Targeting Her-2/neu was associated with concomitant PD-L1 upregulation of expression in the same tumors, resulting in a significantly

• <u>Clinical setting</u>: Targeting Her-2/neu was associated with the upregulation of Her-2/neu expression in the evaluated patient's primary tumor, conceivably

Conflicts of Interest

• We aimed to investigate the upregulation of PD-L1 and downregulation of Her-2/neu expression following Her-2/neu-targeted vaccination in preclinical and clinical settings.

Methods

Aim

• Immunohistochemistry (IHC), fluorescence in situ hybridization (FISH), and combined positive score (CPS) assessment were applied to evaluate PD-L1 and Her-2/neu expression levels in: 1. Preclinical setting: using metastasized lungs of mice prophylactically vaccinated with HerVaxx and tail-vein injected with mammary carcinoma cells expressing human Her-2/neu. 2. Clinical setting: Using biopsies from an adult patient from the phase 1b HERIZON trial (NCT02795988), before and after the treatment, who had developed a new metastatic lesion and had lost

PD-L1, IHC

Her-2/neu, IHC





- in conjunction with the adjuvant Montanide. *BMC Cancer* 2017;17(1), 118.

- *Oncology*, 2023. 34: p. S4.

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Clinical setting Her-2/neu targeting vaccination increased PD-L1 and decreased Her-2/neu expression in the primary tumor

References

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Contacts