

BACKGROUND

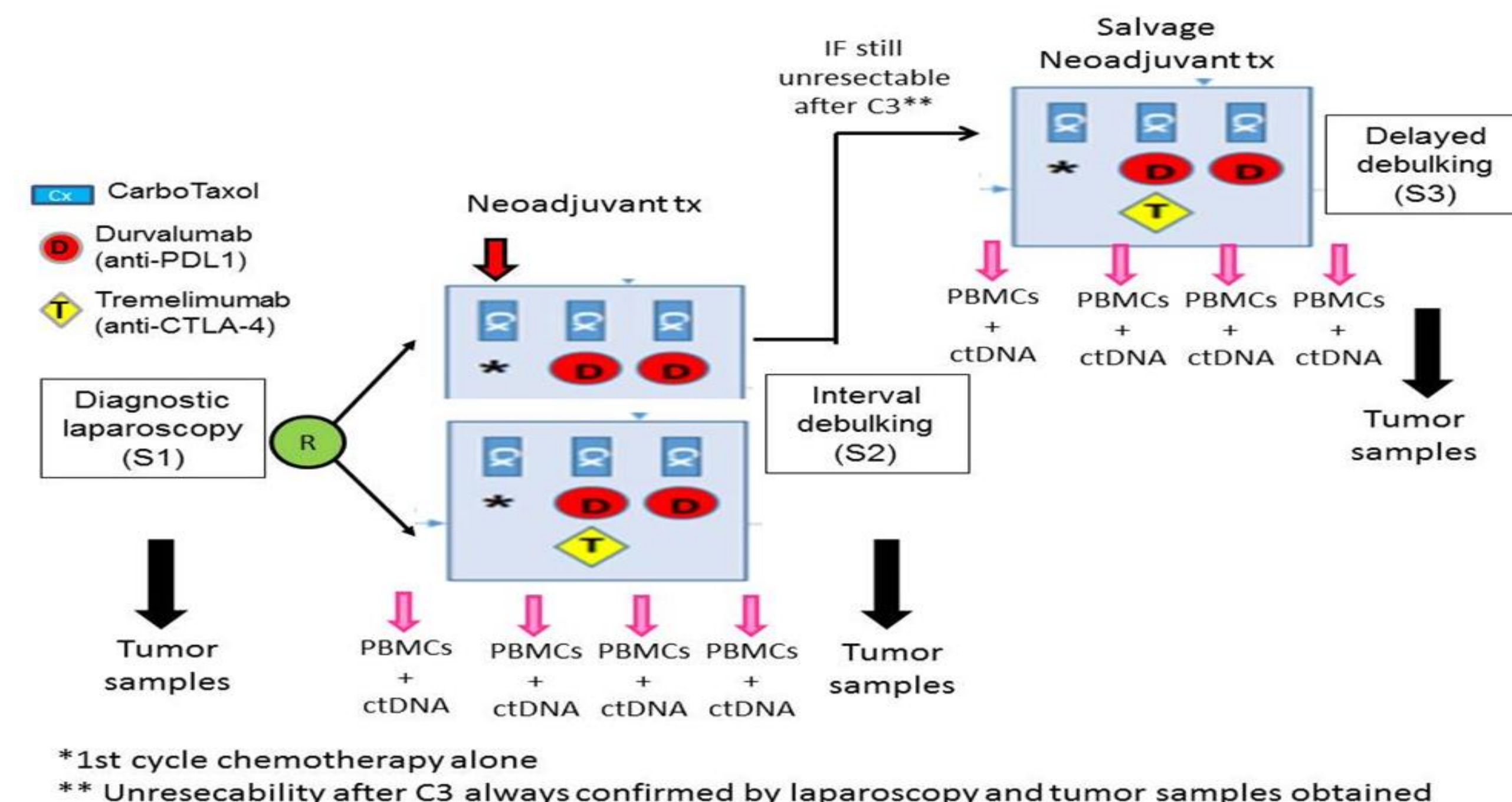
- CD47 is a potent ‘don’t eat me’ signal that promotes tumor immune evasion by inhibiting phagocytosis by macrophages
- CD47 is overexpressed in OC and its expression correlates with poor prognosis
- How CD47 expression relates to other key features in the immune tumor microenvironment (iTME) or changes under treatment remains unknown
- We evaluated CD47 expression on a cohort of OC tumors from 188 patients (CHIVA trial) at diagnosis and after NACT in a clinical trial, CHIVA, and its correlation with other iTME features.

METHODS

Immune microenvironment characterization

- Immune cells (IC) were stained for **CD8** and **CD163** and scored as number of IC+/mm². A mean score was calculated from three TMA cores from each sample.
- PDL1**, **LAG3** and **TIM3** expression were reported as the average percentage of tumor and immune cells with moderate to strong membranous staining in three TMA cores
- CD47** expression was scored by H-score : staining intensity (0, +1, +2, +3) x % positive cells (0-300)
- Non parametric test : Spearman and Wicoxon

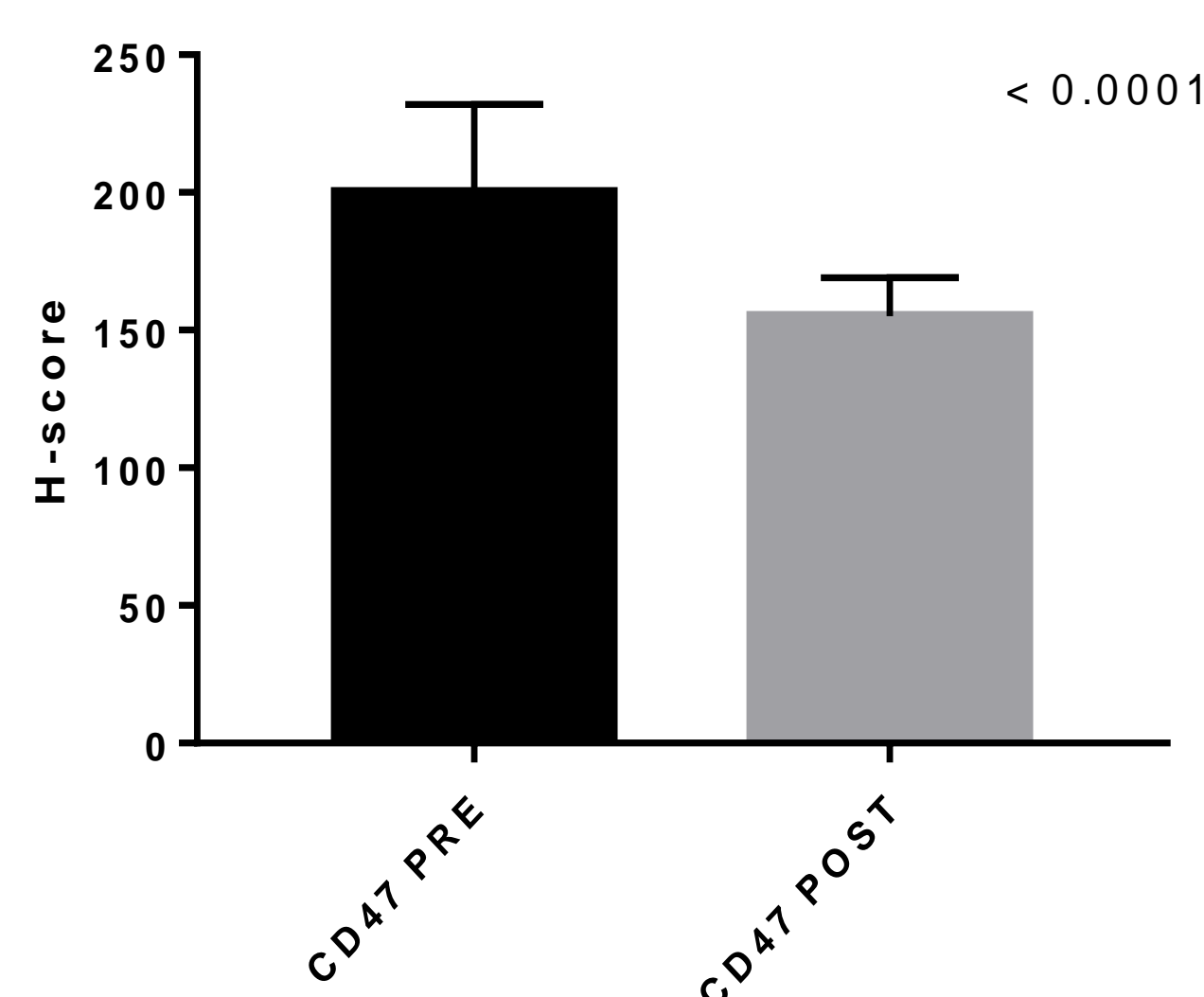
CHIVA Study design



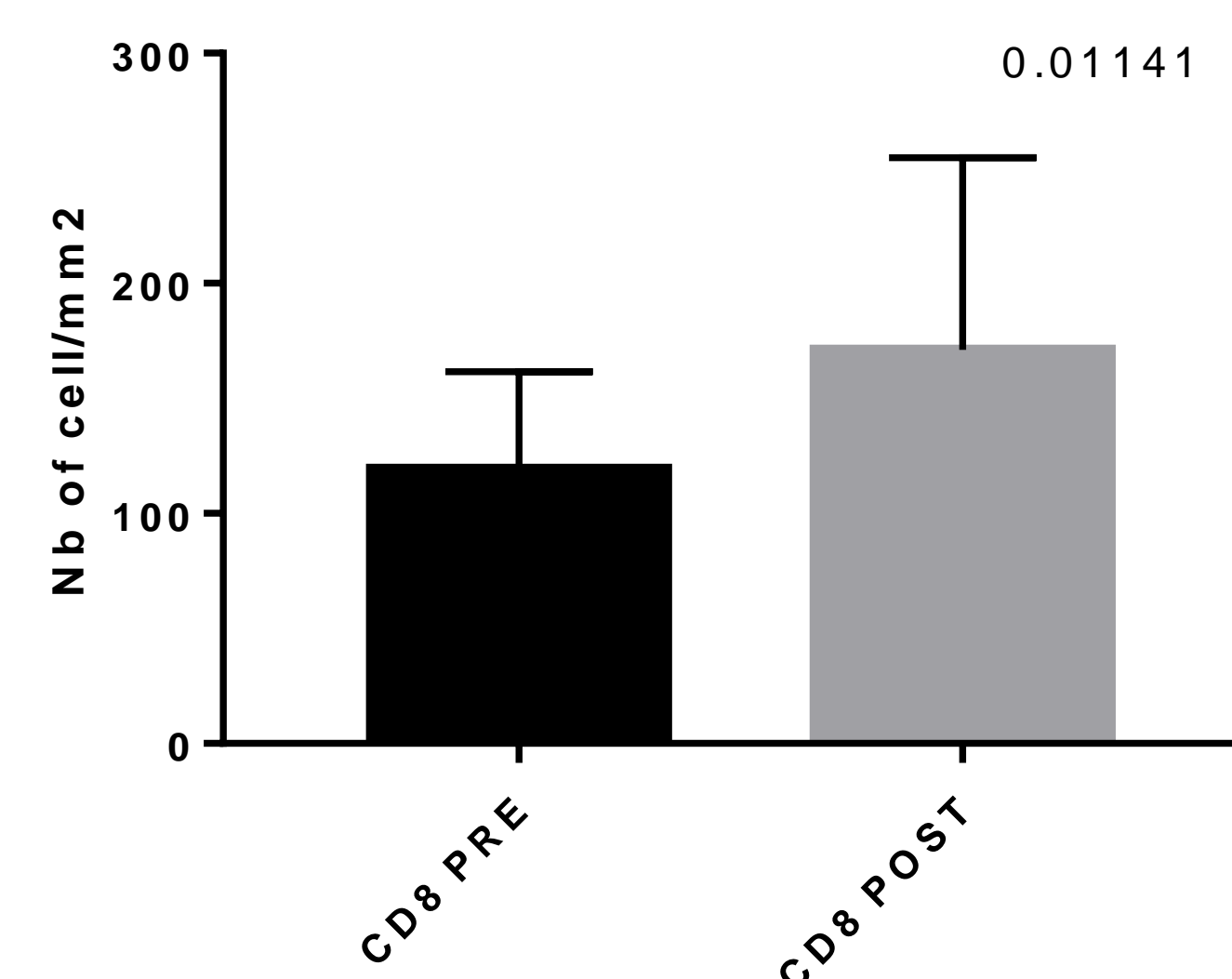
RESULTS

CD47 and CD8 expression in paired samples

Evolution of CD47 expression under NACT



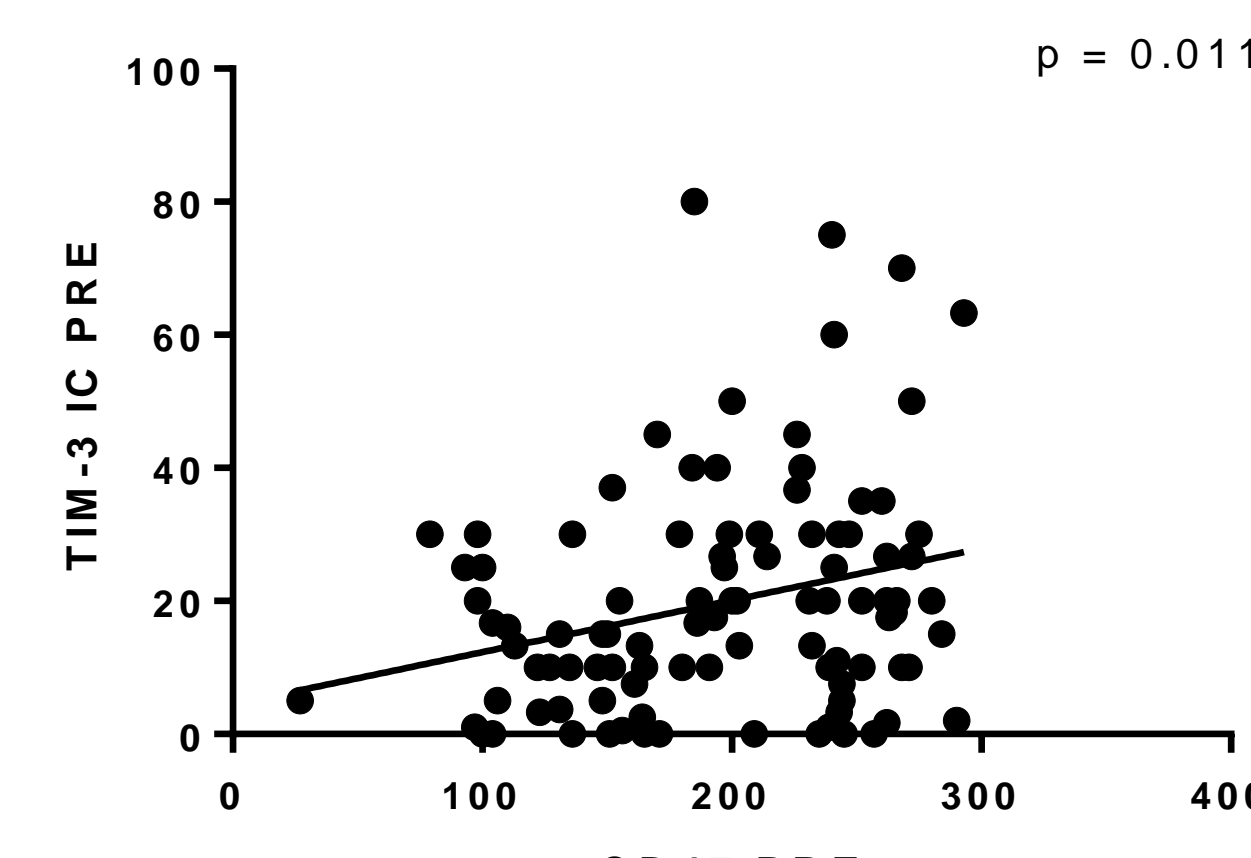
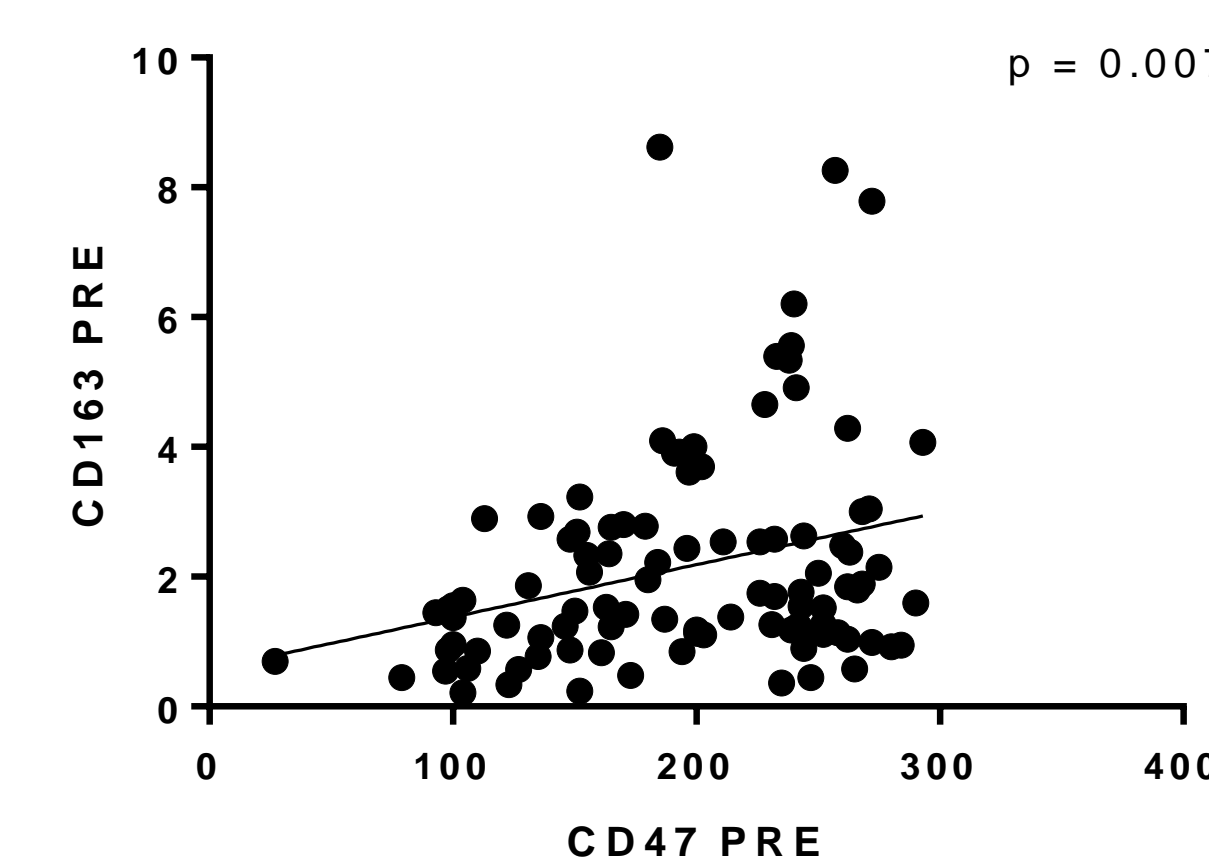
Evolution of CD8 expression under NACT



- CD47 expression at diagnosis was high** (median = 200) with 0% completely negative
- Evaluation of CD47 expression in paired samples demonstrated a **significant decrease after NACT** (paired Wilcoxon ranked test)
- CD8 infiltration increased after NACT**

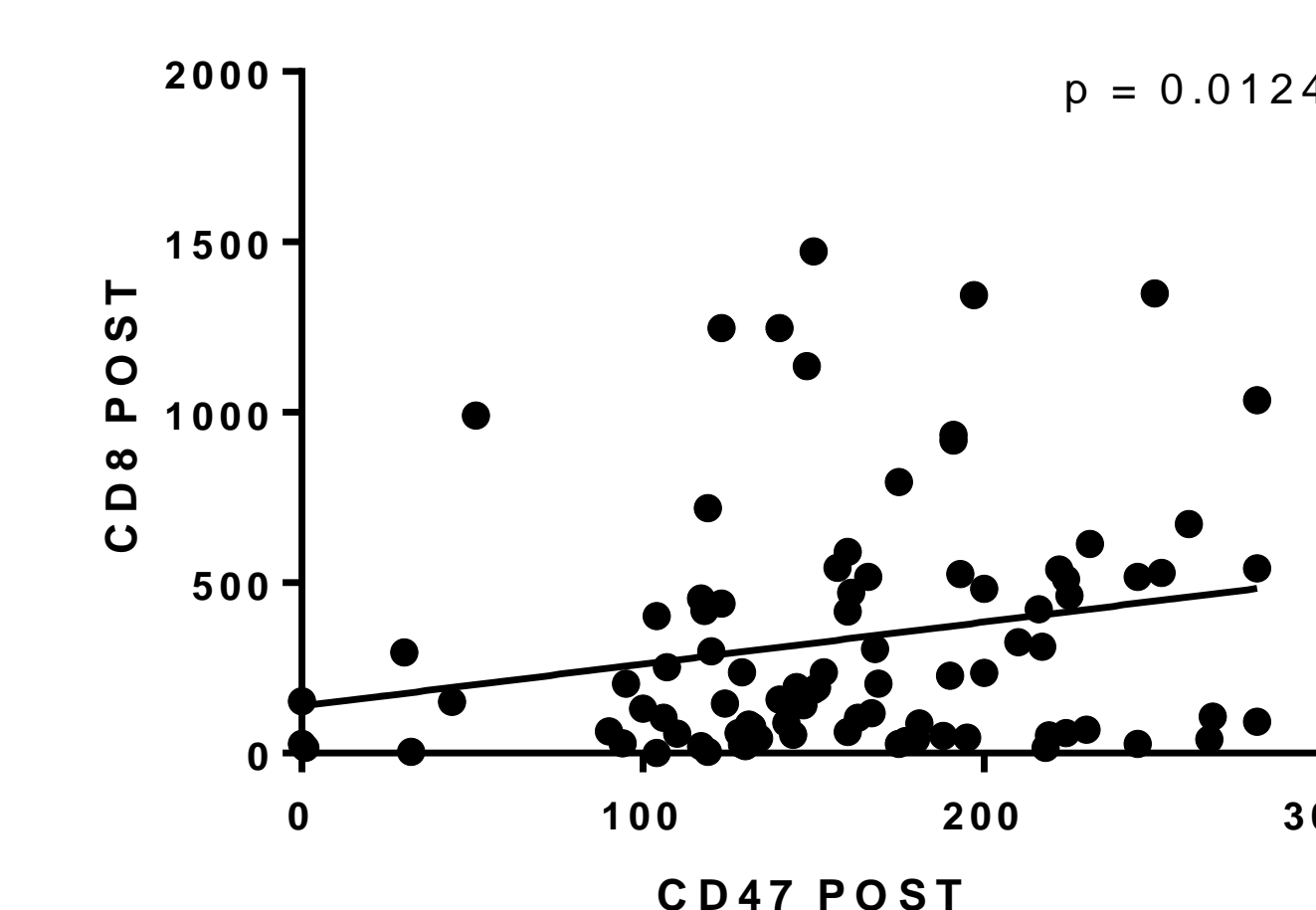
RESULTS

Correlation of CD47 expression with immune features at diagnosis



CD47 expression at **diagnosis was positively correlated** with other mediators of immune tolerance such as the **M2 macrophages markers CD163** or **T cell exhaustion markers** such as TIM-3 (same results for LAG-3 (p**=0.003))

Correlation of CD47 expression with immune features after NACT



CD47 expression **was positively correlated** with the presence of **CD8+ T cells** after NACT

CONCLUSIONS

- We show that **NACT increases CD8+ T cell infiltration and decreased CD47 expression** in support of favorable immunomodulatory effects on the iTME in OC
- In addition, our data suggest that immune escape in OC could be the result of **concerted overexpression of multiple immune suppressor molecules**
- Inhibiting both CD47 and other features from the iTME could represent an attractive strategy to enhance anti-tumor immunity in OC

ACKNOWLEDGEMENTS

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First author conflicts of interest

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Corresponding author : laure.chardin@gustaveroussy.fr