Black boxes in mUC: what to do upon progression to adjuvant CPI? The biology of sequential immunotherapy

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Conflicts of interest

- Advisory: Numab, Pieris, BMS
- Speaker's bureau: MSD, Replimune
- Grant travel: Roche, BMS, AZ
- Research grant: Roche, BMS

A New Black Box

Adjuvant CPI exposure \rightarrow relapse \rightarrow ???

CM 274 (Neoadj CT)→ Surgery→Adjuvant nivolumab NIAGARA
Neoadj CT+durvalumab-->
Surgery→Adjuvant durvalumab

Key question: Does it make sense to re-treat with PD-1 or PD-L1 blockade strategies?

Aspects to consider

Time to relapse

Type of (neo)adjuvant treatment

Immune TME at the time of recurrence

A black box shared by different tumor types

MELANOMA

Pembrolizumab (KN 054 and KN 716) and Nivolumab (CM76K and CM238)

NSCLC

Pembrolizumab (**PEARL**), Atezolizumab (**IMpower 010**) and Perioperative trials

RCC

Pembrolizumab (KN 564)

Esophageal/GEC

Nivolumab (CM 577)

cSCC

Cemiplimab (**C-POST**)

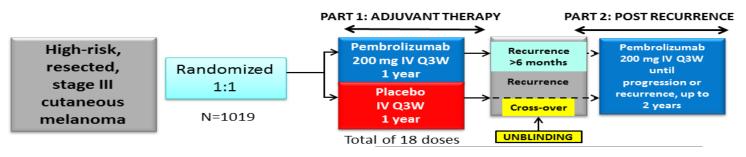
TNBC

Pembrolizumab (KN 522)

Melanoma previous experience

Eggermont AM, Cancer Research 2018

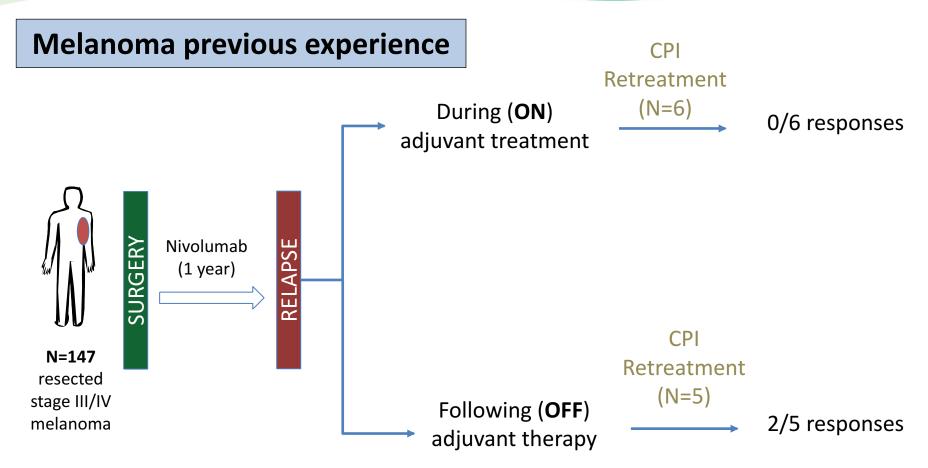
EORTC 1325/KEYNOTE-54: Study Design L. Eggermont AACR 2018



From 9 patients (1 CR, 3 SD, 5 PD)

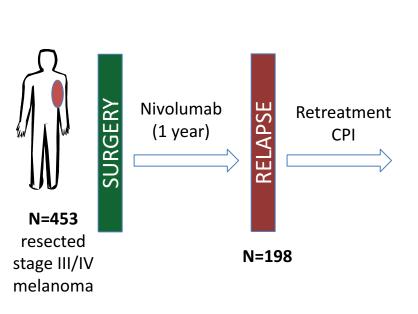
Median PFS: 4.1 months (Expected naive-CPI treated mPFS: 12 months)

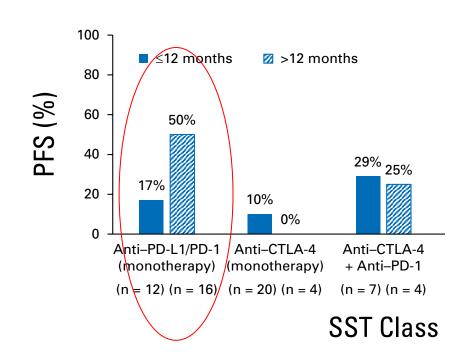
CPI retreatment in adjuvant CPI-experienced patients is less active than in CPI-naive patients



Owen CN et al, Ann Oncol 2020

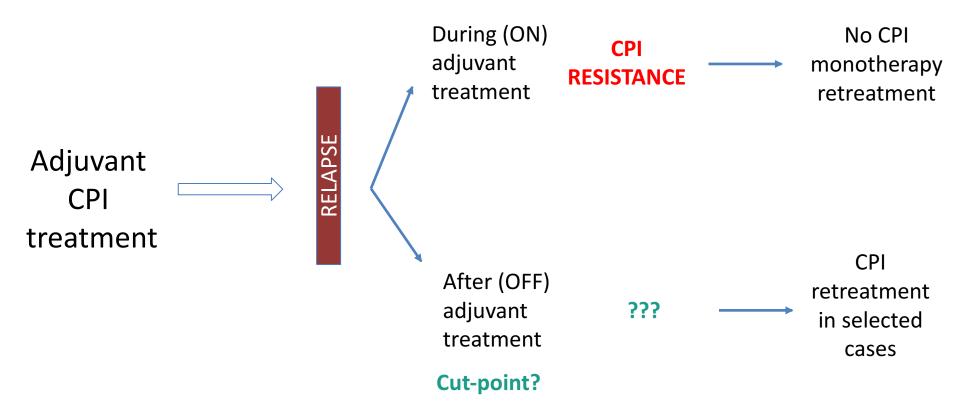
Melanoma previous experience





Weber J et al, J Clin Oncol 2024

Time to relapse



Aspects to consider

Time to relapse

Type of (neo)adjuvant treatment

Immune TME at the time of recurrence

Emerging landscape of immunotherapy in early stage UC

ADJUVANT

CM274



Nivolumab

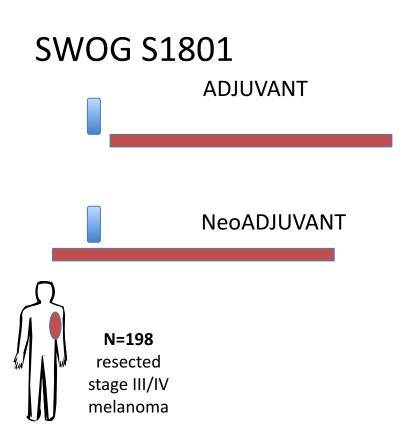
PERIOPERATIVE

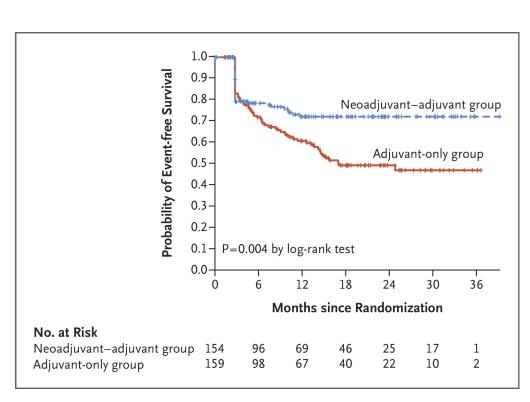
NIAGARA

Surgery

Durvalumab

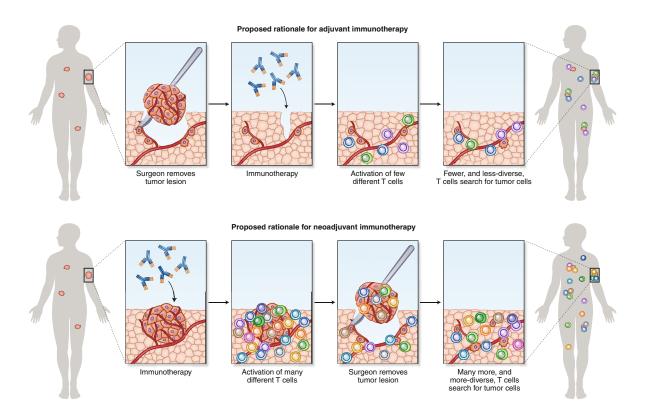
Melanoma previous experience: Benefit of neoadjuvant vs adjuvant



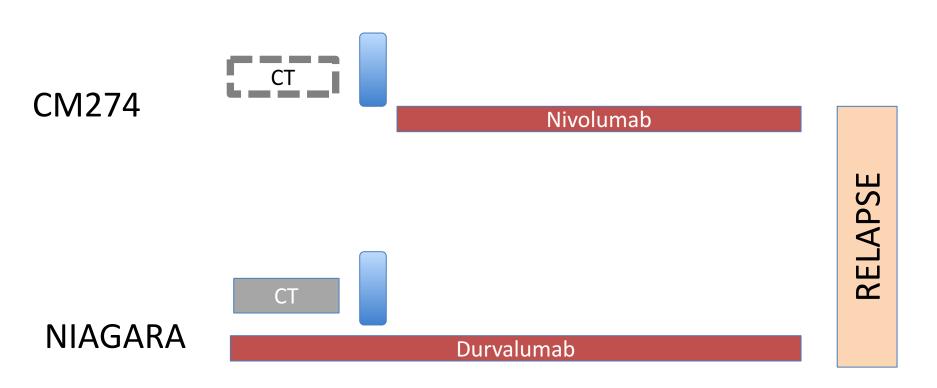


Sapna P Patel et al, NEJM 2023

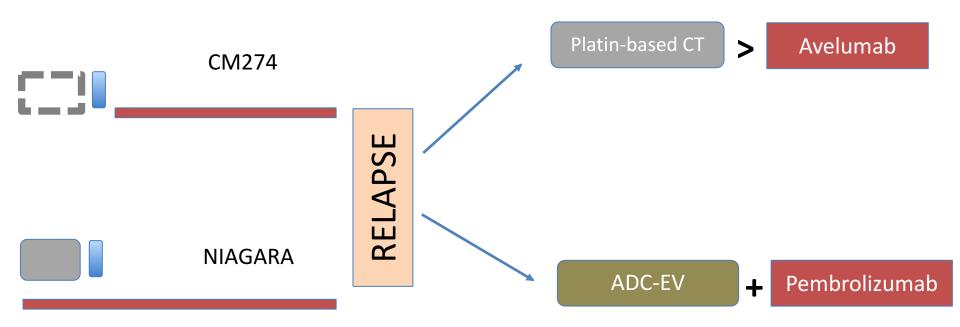
Rationale for prioritizing neoadjuvant treatment over adjuvant



CPI failure may be biologically different in adjuvant vs perioperative

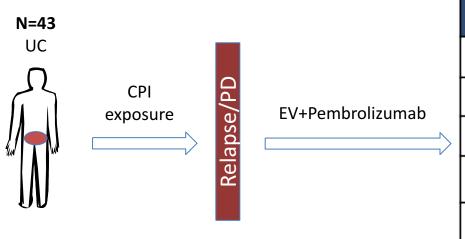


Recurrence after (OFF) CPI adjuvant treatment



Recurrence during (ON) CPI adjuvant treatment Platin-based CT **Avelumab** CM274 RELAPSE **NIAGARA** ADC-EV Pembrolizumab

UNITE STUDY (ASCO 2025)



Treatment and Survival Outcomes (n=43)	
Median Follow Up	14 months
Median Overall Survival	15.4 mos (95% CI: 8.7 – NR)
Median Progression-Free Survival	6.9 mos (95% CI: 3.91 – 12.2)
Observed Response Rate	48% (95% CI: 31 - 66) [16/33]
Disease Control Rate (CR/PR/SD)	79% (95% CI: 65 - 93) [26/33]

Expected CPI-naive mUC response and survival to EV+Pembrolizumab:

mOS: **36.5** mo (95% CI 32.2-NE)

mPFS: **12.5** mo (95% CI 10.4-16.6)

ORR: **67.7**% (95% CI 63.6-71.6)

DCR: **86.5**%

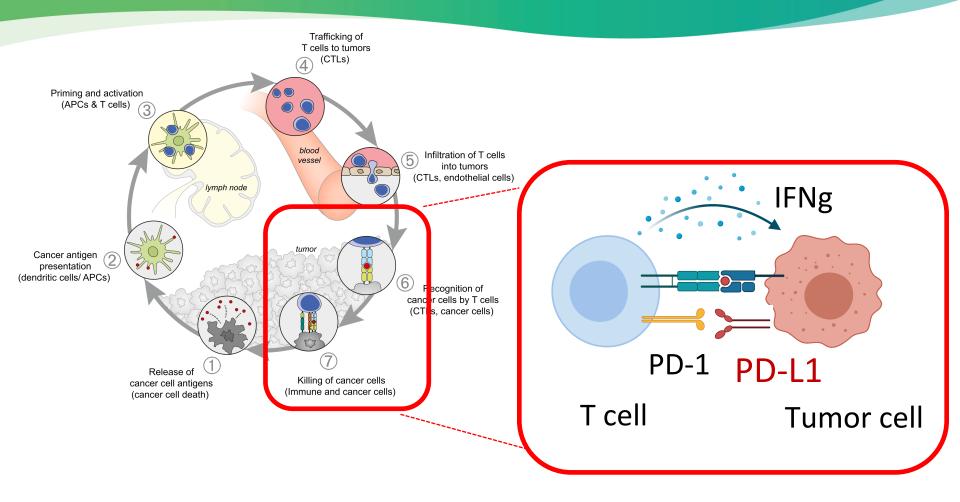
Recurrence during (ON) CPI adjuvant treatment **Avelumab** Platin-based CT CM274 +10 RELAPSE **NIAGARA** Pembrolizumab ADC-EV +10

Aspects to consider

Time to relapse

Adjuvant vs perioperative immunotherapy

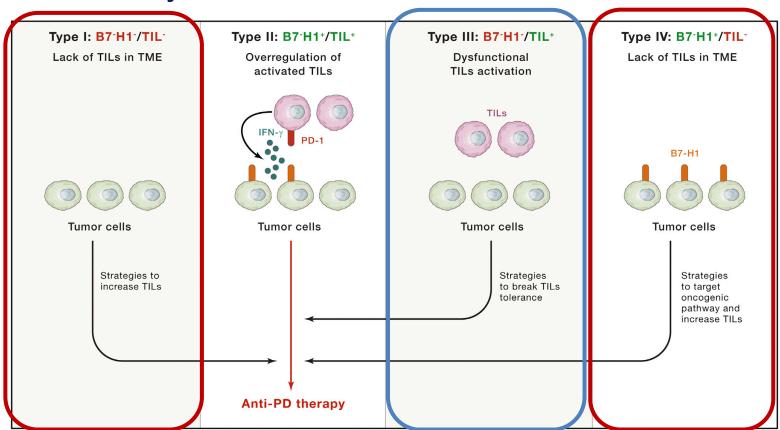
Immune TME at the time of recurrence



Chen and Mellman, Immunity 2013

Frame-work to analyze immune TME

B7-H1=PD-L1



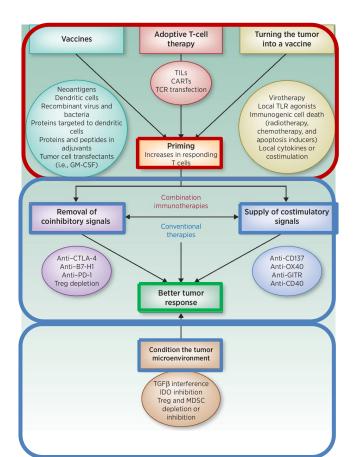
Sanmamed MF and Chen L, Cell 2018

Many complementary strategies to CPI to enhance antitumor immune response

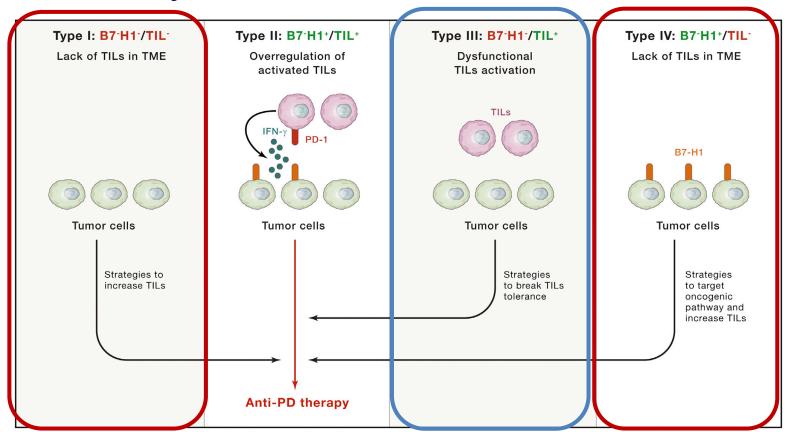
1. Expand tumour-specific T cells

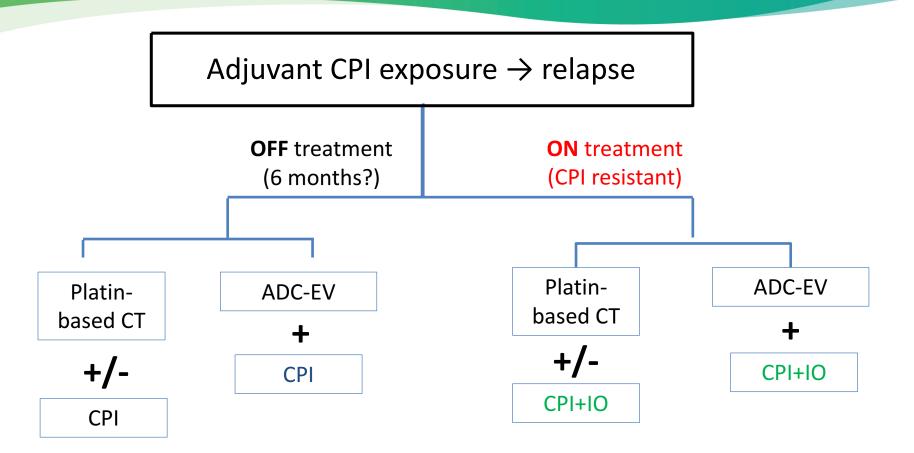
2. T-cell co-stimulatory strategies

3. Targeting immunosuppressive TME



Frame-work to analyze immune TME





IO: Combinations driven by biomarker selection

Thanks