

Initial results from a Phase II study (TACTI-002) in metastatic non-small cell lung or head and neck carcinoma patients receiving efitilagimod alpha (soluble LAG-3 protein) and pembrolizumab

34. Deutscher Krebskongress

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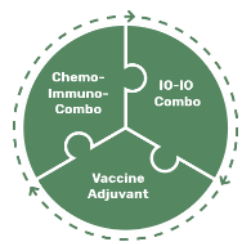
19 Feb 2020

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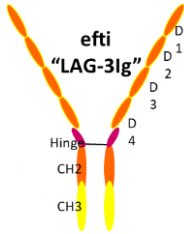
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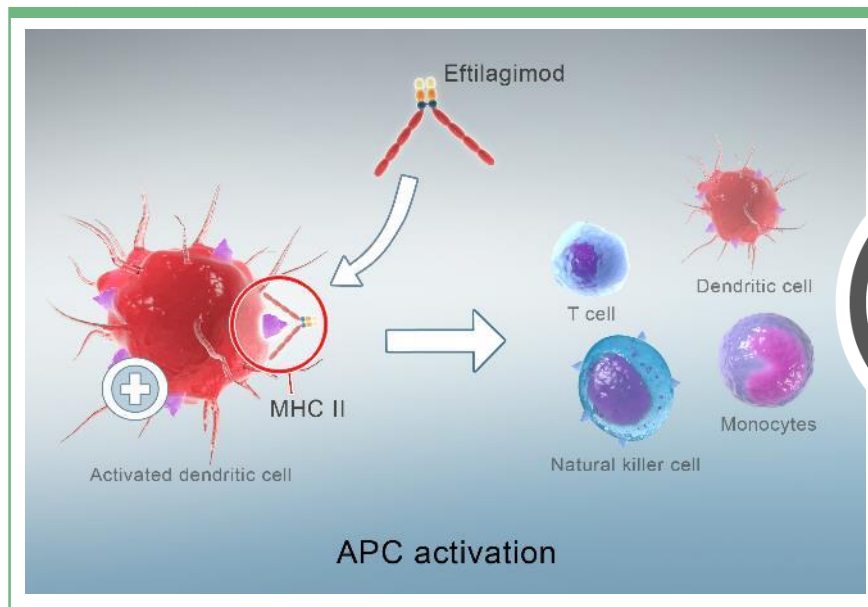
Eftilagimod alpha (efti)

Innovative LAG-3 I-O Product Candidate



- Efti is a soluble LAG-3 protein targeting a subset of MHC class II on APC
- Potentially synergistic with other therapeutic agents, e.g. I-O agents or chemotherapies

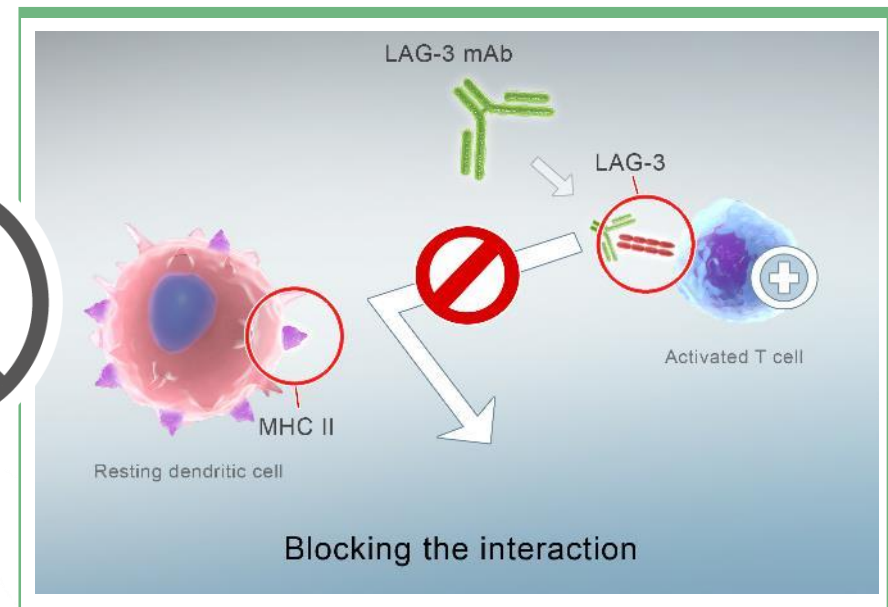
“PUSHING THE ACCELERATOR ON IMMUNE RESPONSES”



Efti is an **MHC II agonist**
APC activator

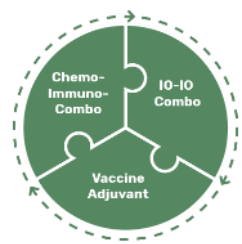
- boost and sustain the CD8⁺ T cell responses
- activate multiple immune cell subsets

“RELEASING THE BRAKE ON THE T CELL”



LAG-3 antagonist, or blocking, antibodies:
Immune checkpoint inhibitor

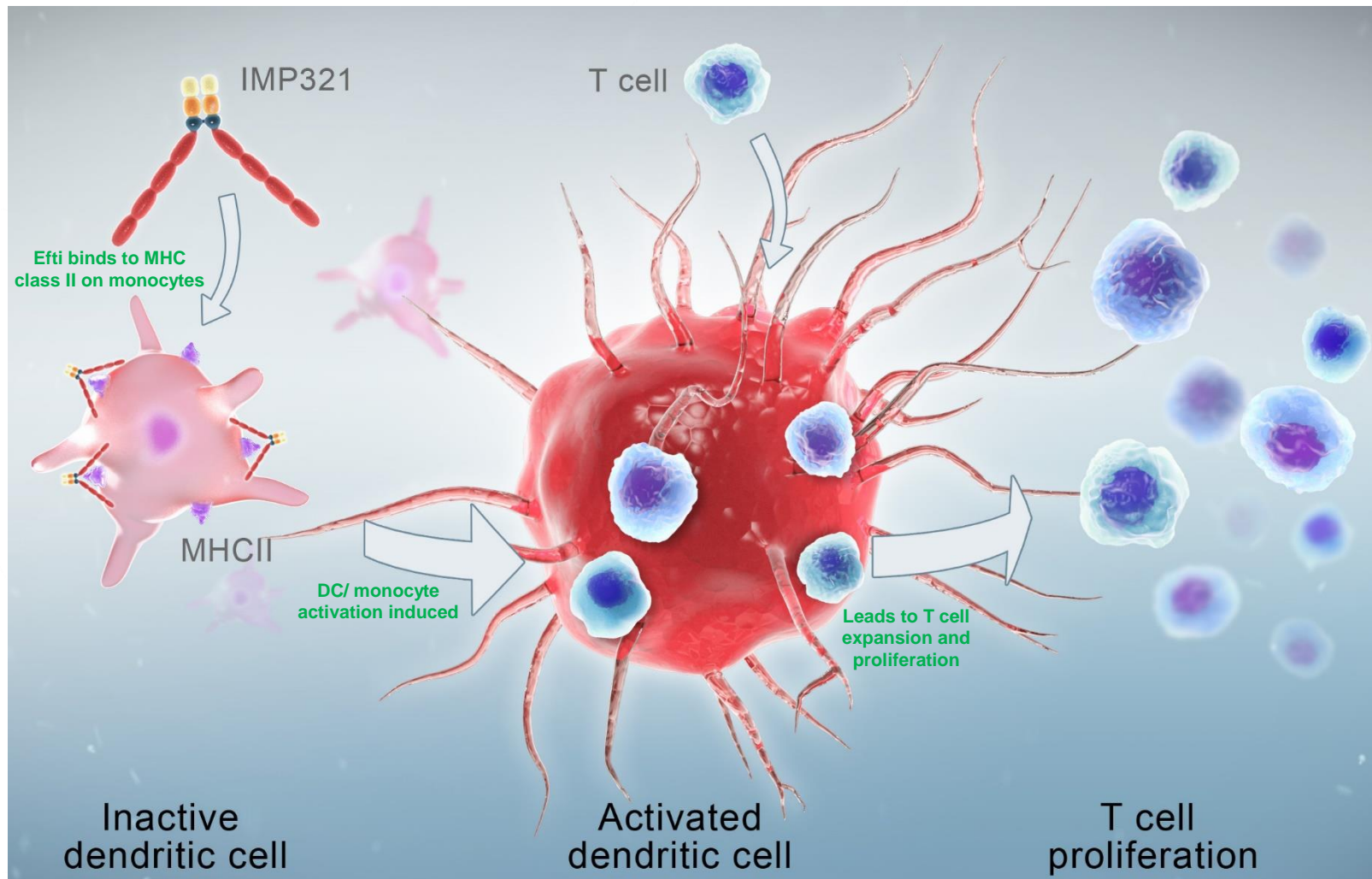
- increase cytotoxicity of the pre-existing CD8 T cell response

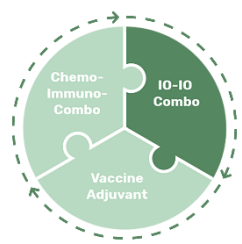


Eftilagimod alpha (efti): a soluble LAG-3 protein

Mechanism of Action (MoA)

*Efti's unique agonistic MoA leads to T cell expansion and proliferation
→ pushing the gas on the immune response*



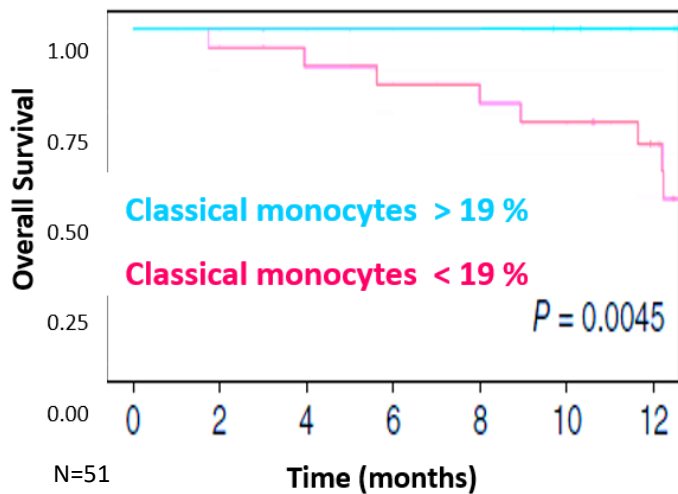


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Rationale combination eftilagimod alpha plus PD-1 antagonist (e.g. pembrolizumab)

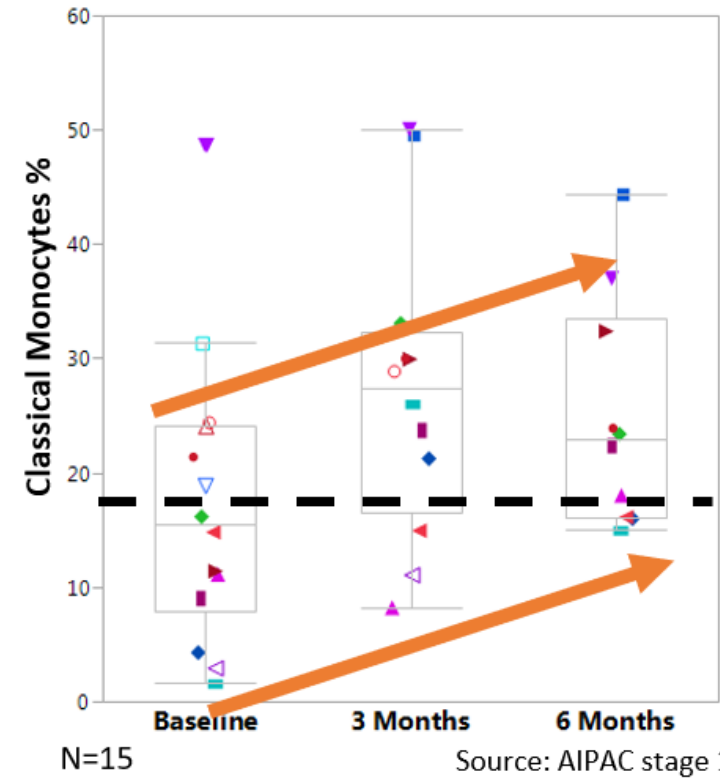
→ *Efti increases peripheral monocyte counts in cancer patients*

Melanoma

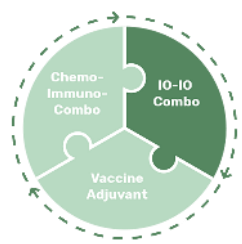


Source: Krieg et al., Nat. Med. 24, 2018.

- Baseline innate immunity status seems to be important for the response (OS) to pembrolizumab
- Data suggests that low monocyte numbers at baseline are associated with poor efficacy of anti-PD-1 therapy in melanoma patients
- Data shows that the APC activator eftilagimod alpha boosts innate immunity



Source: AIPAC stage 1



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Trial Design + Introduction

- Phase II, multi-national, open label, Simon`s 2 stage design; PD-L1 all comer
- In collaboration with Merck Sharp & Dohme (MSD)



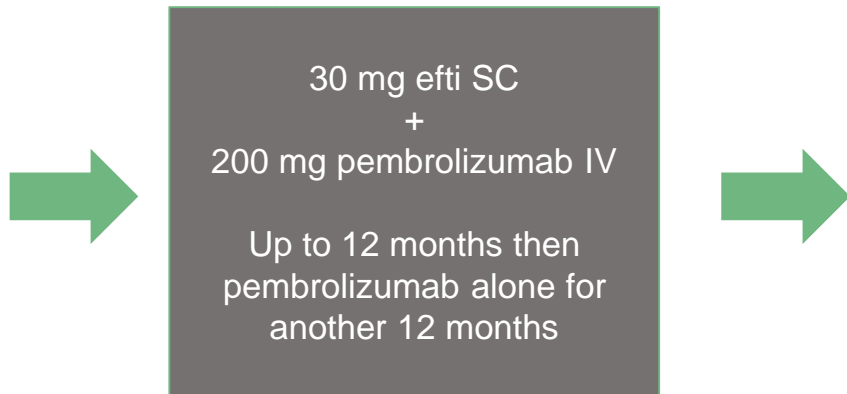
Eligibility

- Available tumor tissue
- ECOG 0-1
- Adequate organ functions
- **PD-L1 all comer**

Part A:
1st line met. NSCLC

Part B:
2nd line met. NSCLC, refractory for PD-1/PD-L1

Part C:
2nd line met. HNSCC after platinum

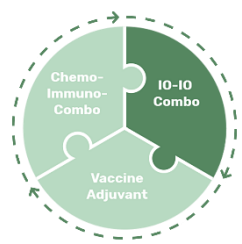


Primary: ORR (iRECIST)

Secondary: PFS, OS, PK, biomarker, PD, safety and tolerability

Study – Part	Stage 1 (N) Actual/target	Stage 2 (N) target
Part A	17/17	19 (opened)
Part B	13/23	13
Part C	18/18	19 (opened)

Results from stage 1 are reported today



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Results¹ – all parts stage 1

Exposure and Safety

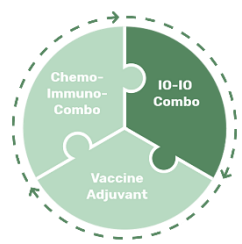
Summary

- 48 pts were enrolled between Mar 2019 and Jan 2020⁽¹⁾. Pts received median 7 (range 1-20) efti injections and median of 5 (range 1-16) pembrolizumab (Keytruda[®]) infusions.
- 16 pts (33.3%) had ≥ 1 treatment emergent SAE
- 2 fatal TEAE (hemoptysis; respiratory failure) unrelated to therapy
- 2 TEARs leading to permanent discontinuation:
 - Hepatitis grade 4 – both study drugs discontinued
 - Diarrhea grade 3 – pembro discontinued

TEAEs occurred in > 10 % of pts (N=48 in total)

Adverse event (PT)	Any Grade N (%)	Grade 2 N (%)	Grade 3 N (%)
Cough	15 (31.3)	5 (10.4)	-
Asthenia	11 (22.9)	4 (8.3)	-
Decreased appetite	9 (18.8)	5 (10.4)	-
Fatigue	9 (18.8)	2 (4.2)	1 (2.1)
Dyspnoea	8 (16.7)	2 (4.2)	3 (6.3)
Diarrhea	7 (14.6)	2 (4.2)	1 (2.1)
Constipation	6 (12.5)	1 (2.1)	1 (2.1)

- No grade 4 or 5 for the TEAEs described in the table
- Injection site reactions (n=18 events in 10 subjects) all grade 1 severity were reported for efti
- No new safety signals observed thus far



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Results¹ - 1st line NSCLC (part A, stage 1)

Baseline Characteristics

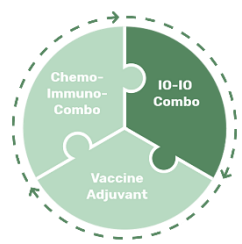
- *PD-L1 distribution as expected* → *PD-L1 all comer trial*
- *Patients are typical NSCLC 1st line pts*

Baseline Parameters (n=17)	N (%)
Median age, yrs (range)	65 (53 – 76)
Sex	
Female	6 (35.3)
Male	11 (64.7)
ECOG	
0	12 (70.6)
1	5 (29.4)
Smoking status	
Never	1 (5.9)
Current / former	16 (94.1)
Histology	
Squamous	10 (58.8)
Non-squamous	7 (41.2)
Location of disease at study entry	
Lung	8 (47.1)
Bone	5 (29.4)

Central assessment of tumor cell PD-L1 expression done post enrollment		
PD-L1 (n=13) ²	N (%)	Historical ³ Distribution
< 1 %	3 (23%)	35%
1-49 %	6 (46%)	35%
≥ 50 %	4 (31%)	30%

Notes:

- (1) Preliminary data, cut-off January 31 2020
- (2) % in reference to evaluable samples; 4 specimens not evaluable by central lab using standard IHC kit
- (3) Garon et al N Engl J Med 2015;372:2018-28



eftilagimod alpha - TACTI-002

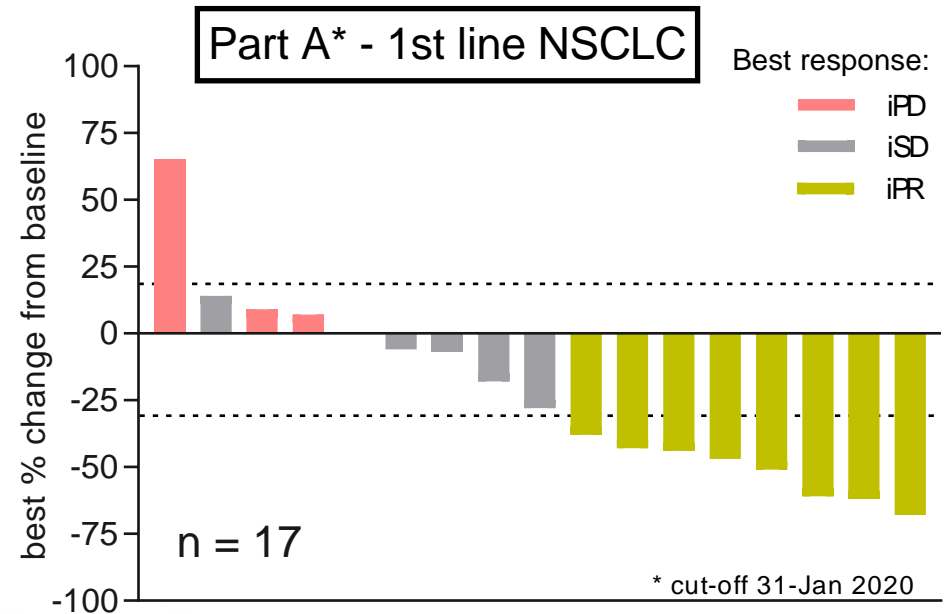
Results¹ - 1st line NSCLC (part A, stage 1)

Responses and Waterfall plot

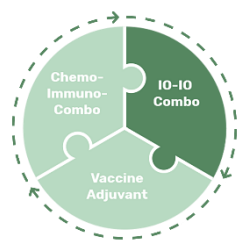
- 47.1 % iORR acc. to iRECIST in this PD-L1 all comer trial
- Responses in all PD-L1 subgroups

Tumor response - BOR as per iRECIST	N (%) Total (N=17)
Complete Response (iCR)	0 (0.0)
Partial Response (iPR)	8 (47.1)
Stable Disease (iSD)	6 (35.3)
Progressive Disease (iPD)	3 (17.7)
Objective Response Rate (iORR)	8 (47.1)
Disease Control Rate (iDCR)	14 (82.4)

- Responses in all PD-L1 subgroups
- 6/8 iPR confirmed already → 7/8 pts with iPR still under therapy (none discontinued due to PD)
- 12/17 (71 %) patients with target lesion decrease



Patients by PD-L1 category	No. of Responses
Low (< 1 %)	1
Medium (1-49 %)	3
High (≥ 50 %)	3
Not evaluable	1
Overall	8

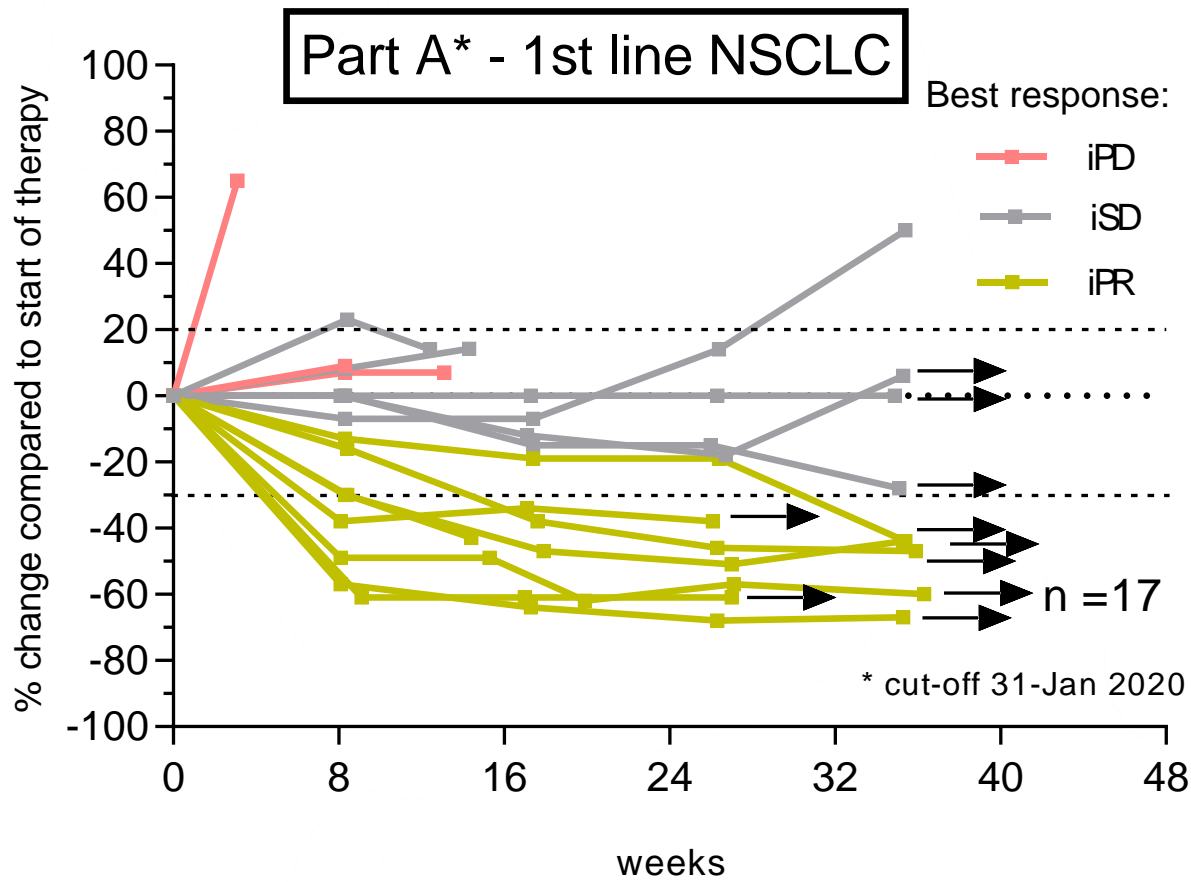


eftilagimod alpha - TACTI-002

Results¹ - 1st line NSCLC (part A, stage 1)

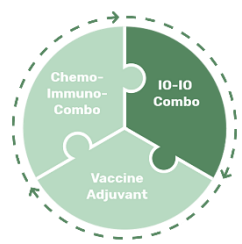
Spiderplot

→ At data cut-off 10 pts (59 %) still under treatment at 7+ months → median PFS not yet reached



Main reason for discontinuation

- Progressive disease (n=4)
- Clinical deterioration (n=1)
- Adverse events (n=2):
 - G4 hepatitis (treatment related)
 - G5 hemoptysis (disease related)



eftilagimod alpha - TACTI-002

Results¹ – 2nd line HNSCC (part C, stage 1)

Responses and Waterfall plot

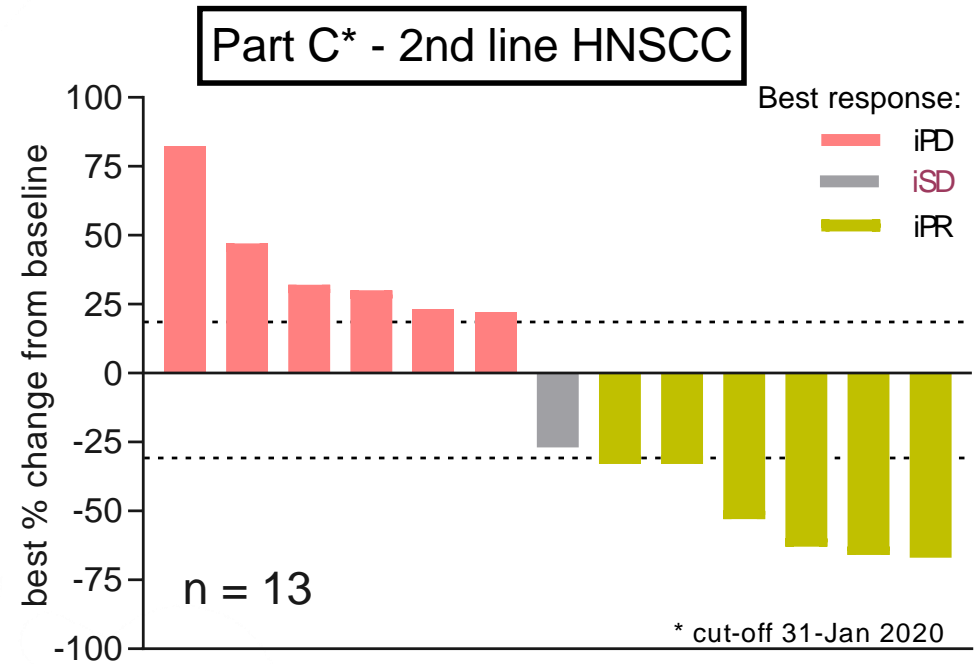
→ Initial iORR of 33.3 % in this PD-L1 all comer HNSCC 2nd line patients

- Median Age of 66, mostly male (94 %)
- ECOG 1 in 47 %
- Different subtypes

Tumor response - BOR as per iRECIST	N (%) Total (N=18)
Complete Response (iCR)	0 (0.0)
Partial Response (iPR)	6 (33.3)
Stable Disease (iSD)	1 (5.6)
Progressive Disease (iPD)	6 (33.3)
Not evaluable*	2 (11.1)
Not yet evaluated**	3 (16.7)
Objective Response Rate (iORR)	6 (33.3)
Disease Control Rate (iDCR)	7 (38.9)

* - dropped out prior to first restaging

** - not yet staged (on therapy < 9 weeks)



- LPI - Dec 2019 → 3 pts with outstanding imaging
- 7 pts (39 %) had a target lesions decrease
- All pts with iSD or iPR are still under treatment (median 6.4 months)

Note:

⁽¹⁾ Preliminary data, cut-off 31 Jan 2020



Thank you!