



ACTIVATING THE PATIENT'S IMMUNE SYSTEM TO FIGHT CANCER

ONCOS-102 mesothelioma
phase I/II early data

21 January 2020



targovax

MALIGNANT PLEURAL MESOTHELIOMA

HIGH NEED FOR NEW TREATMENT APPROACHES



Surgery

Only 10% of patients suitable for resection

Technically challenging due to location

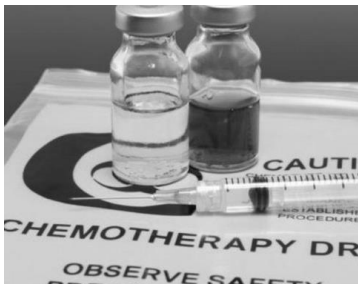
Diagnosis often too late for surgery

Radiotherapy

Rarely effective due to tumor shape

Shape of tumors make them hard to target

Mainly palliative care



Chemotherapy

Standard of care (SoC) has limited efficacy

Only approved SoC option is pemetrexed/cisplatin

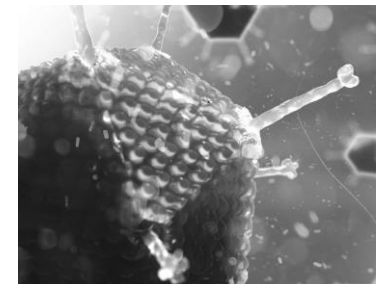
6 month PFS and 12 month median OS in 1st line

Immunotherapy

Mixed signals from early IO trials

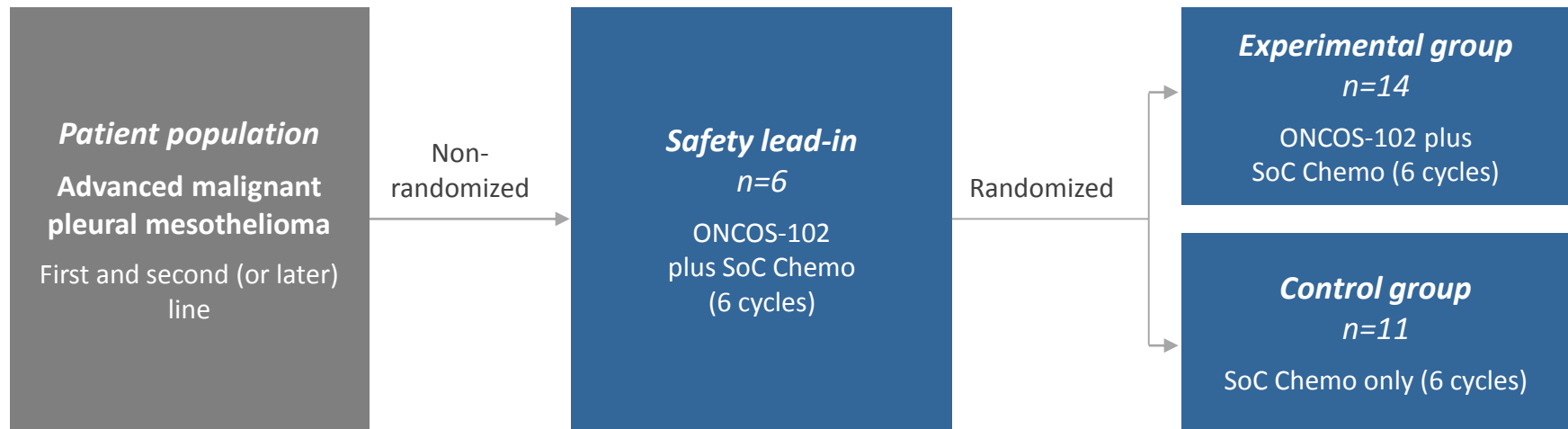
CPIs included in NCCN guidelines as 2nd line option

No/few other oncolytic viruses in development



ONCOS-102 MESOTHELIOMA PHASE I/II TRIAL IN COMBINATION WITH CHEMO

STUDY DESIGN

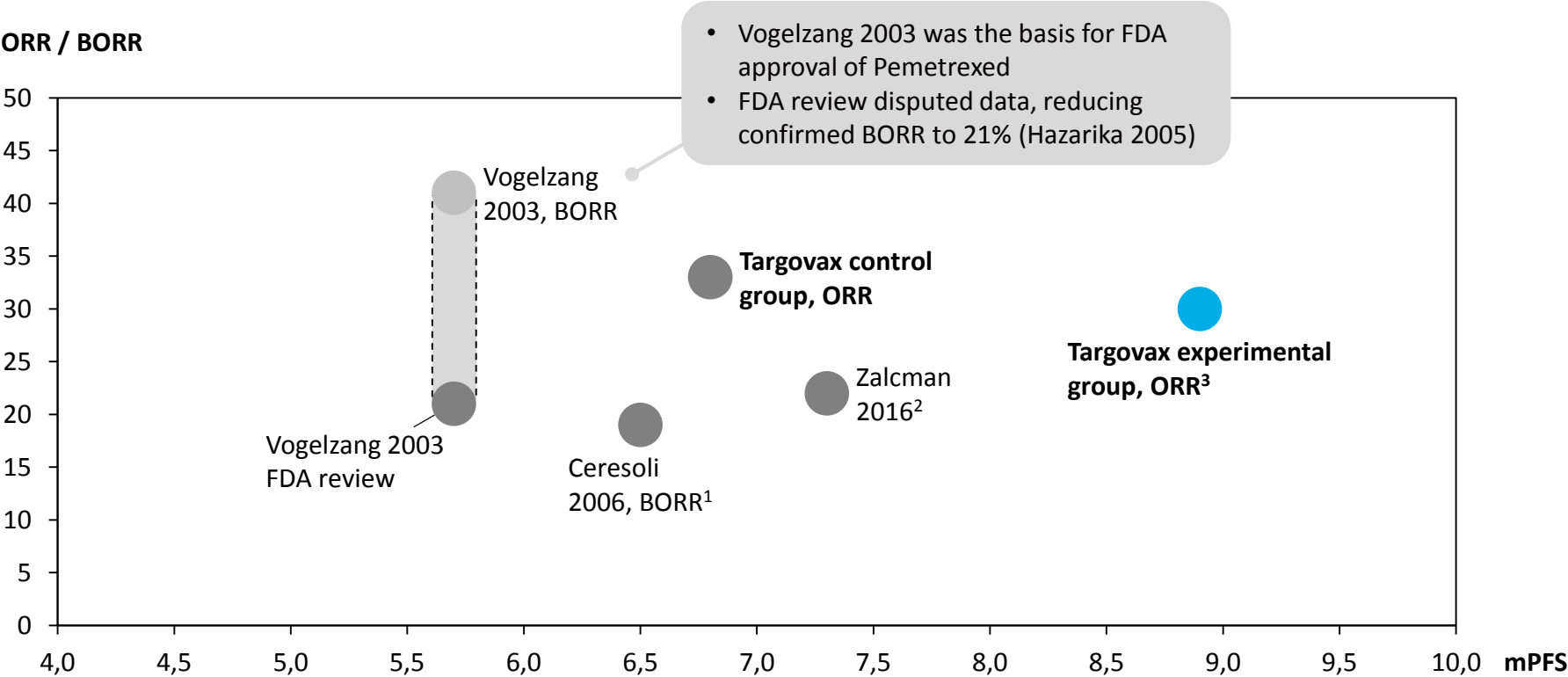


ONCOS-102 MESOTHELIOMA PHASE I/II COMBINATION WITH SOC

PATIENT CHARACTERISTICS AND OUTCOMES

ITT: N = 31 (20+11) PP: N = 30 (19+11)	Experimental n= 20	Control n= 11	Comments
Tumor and disease characteristics at enrollment			
- Number of lesions	4.3	3.5	<i>Generally more progressed disease in experimental group</i>
- Tumor burden mm (RECIST 1.1)	87	46	
- Stage III	30%	27%	
- Stage IV	60%	46%	
First line patients (number)	11 of 20	6 of 11	<i>No previous chemotherapy</i>
Median Progression Free Survival (mPFS)	8.9 months	6.8 months	<i>Early data, many patients censored</i>
Overall Response Rate (ORR, n=10 / n=6)	30%	33%	
Disease Control Rate (DCR, n= 10 / n=6)	90%	83%	
Second (or later) line patients (number)	9 of 20	5 of 11	<i>Received previous chemotherapy</i>
Median Progression Free Survival (mPFS)	4.5 months	ND	<i>Early data, many patients censored</i>
Overall Response Rate (ORR, n=9 / n=5)	11%	60%	
Disease Control Rate (DCR, n=9 / n=5)	67%	80%	

FIRST LINE ONCOS-102 ORR AND EARLY PFS DATA COMPARE FAVORABLY TO HISTORICAL CONTROL



1 Pemetrexed plus carboplatin

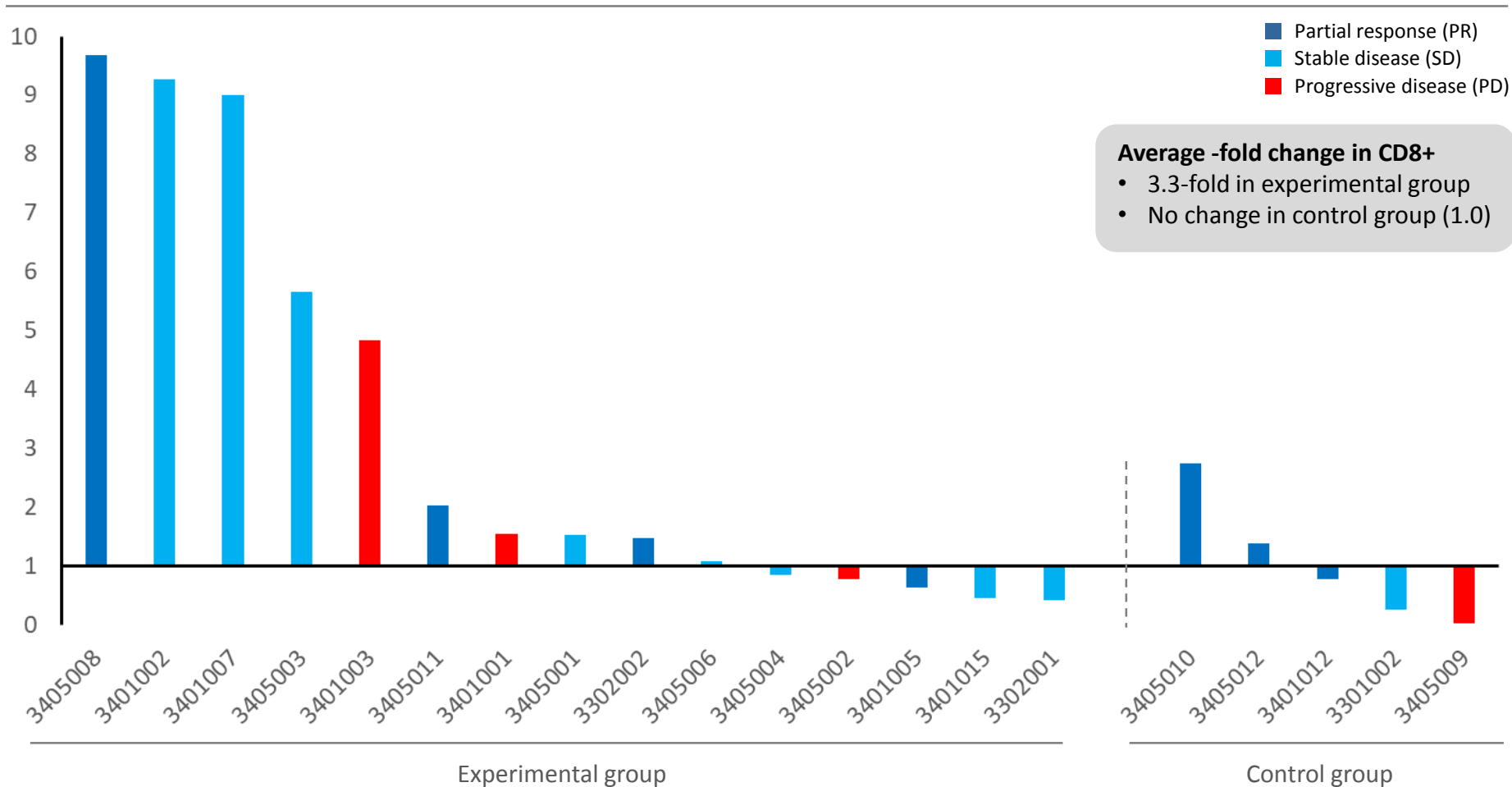
2 Zalcman 2016 (Lancet) compared bevacizumab + pem/cis vs pem/cis; data from pem/cis arm only presented on plot. Not specified if ORR or BORR.

3 mPFS in Targovax trial is early and will change: Control group 6 patients (3 censored), Experimental group 11 patients (7 censored)

ONCOS-102 MESOTHELIOMA IMMUNE ACTIVATION

INCREASED T-CELL INFILTRATION IN EXPERIMENTAL GROUP

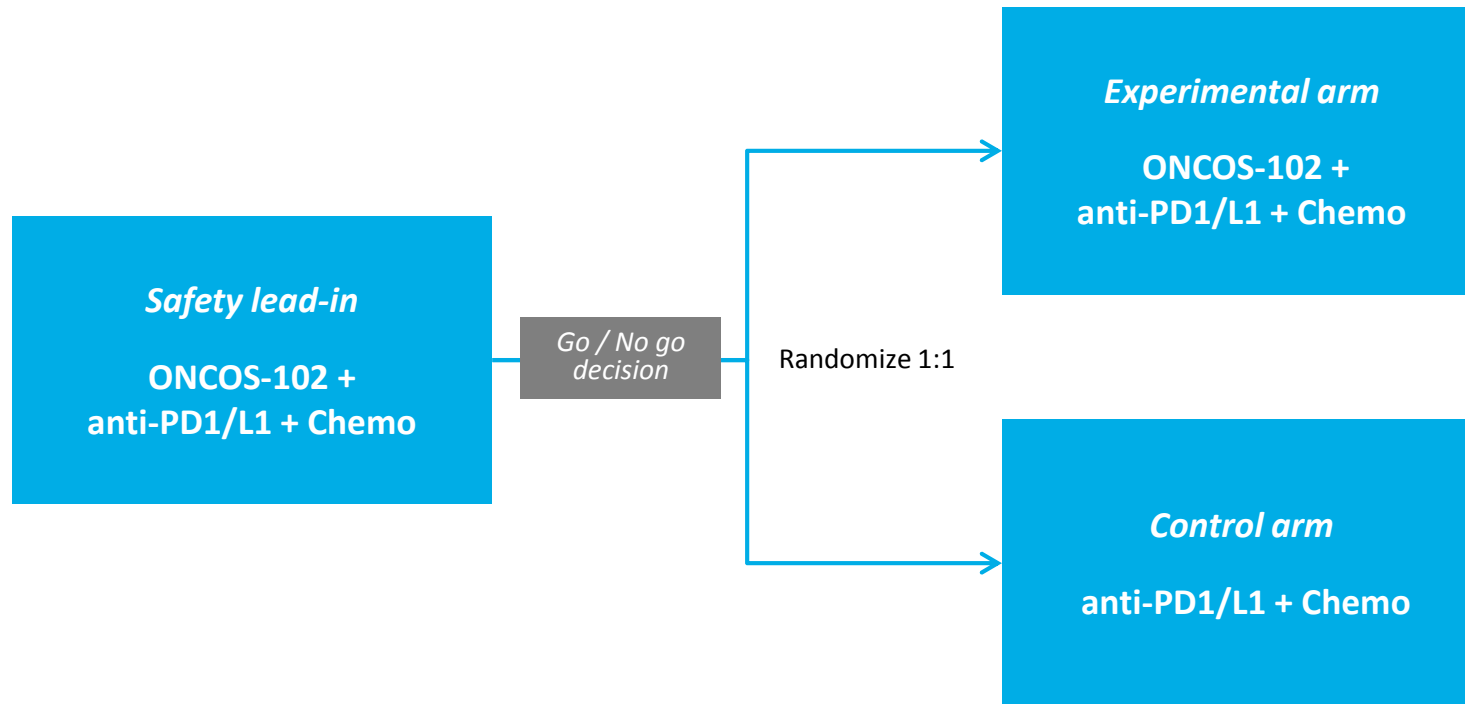
CD8+ T-cell infiltration -fold change from baseline to day 36 (n=20¹)



NEXT STEP: ONCOS-102 + ANTI-PD1/L1 + CHEMO TRIPLE COMBINATION IN FIRST LINE MESOTHELIOMA

Study population – malignant pleural mesothelioma:

First line, unresectable, advanced and/or metastatic disease
ca. 100 patients



ONCOS-102 MESOTHELIOMA PHASE I/II TRIAL

SUMMARY AND NEXT STEPS



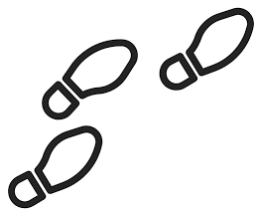
Excellent safety profile

- ONCOS-102 and SoC chemotherapy **combination is well-tolerated**



Clinical activity observed

- Emerging data suggest **benefit for ONCOS-102 treated patients** and **compare favorably** to historical control
- Increased **T-cell infiltration** and **PD-L1 expression**
- Robust immune activation **associated with clinical benefit**



Next steps defined

- **First line** identified as **target population** for follow-up trial
- **Strong rationale** for combination with anti-PD1/L1 CPI
- **Discussion ongoing with pharma partner** for trial collaboration