



ACTIVATING THE PATIENT'S IMMUNE SYSTEM TO FIGHT CANCER

Company presentation

February 2021



targovax

OSE:
TRVX

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TARGOVAX AT A GLANCE



Lead product ONCOS-102 directed to the \$20+ billion market for checkpoint inhibitors

Class-leading clinical data in monotherapy and combinations with chemo and CPI

Powerful immune activation supporting IO-combinations

Pipeline with multiple additional value-creating opportunities

Strong patent position & robust leadership team

MEDICAL NEED FOR IMMUNE ACTIVATORS

CPIs are revolutionizing cancer therapy...

...but only a minority of patients respond...

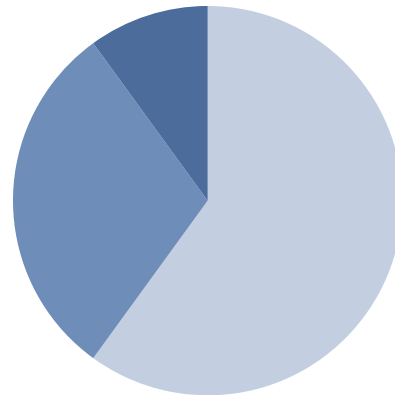
...leading to a high medical need for immune activators

\$20+ bn

Global CPI market¹

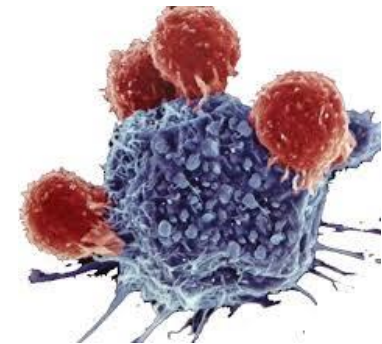
44%

Patients eligible for CPI²:



10 - 40%











Responders



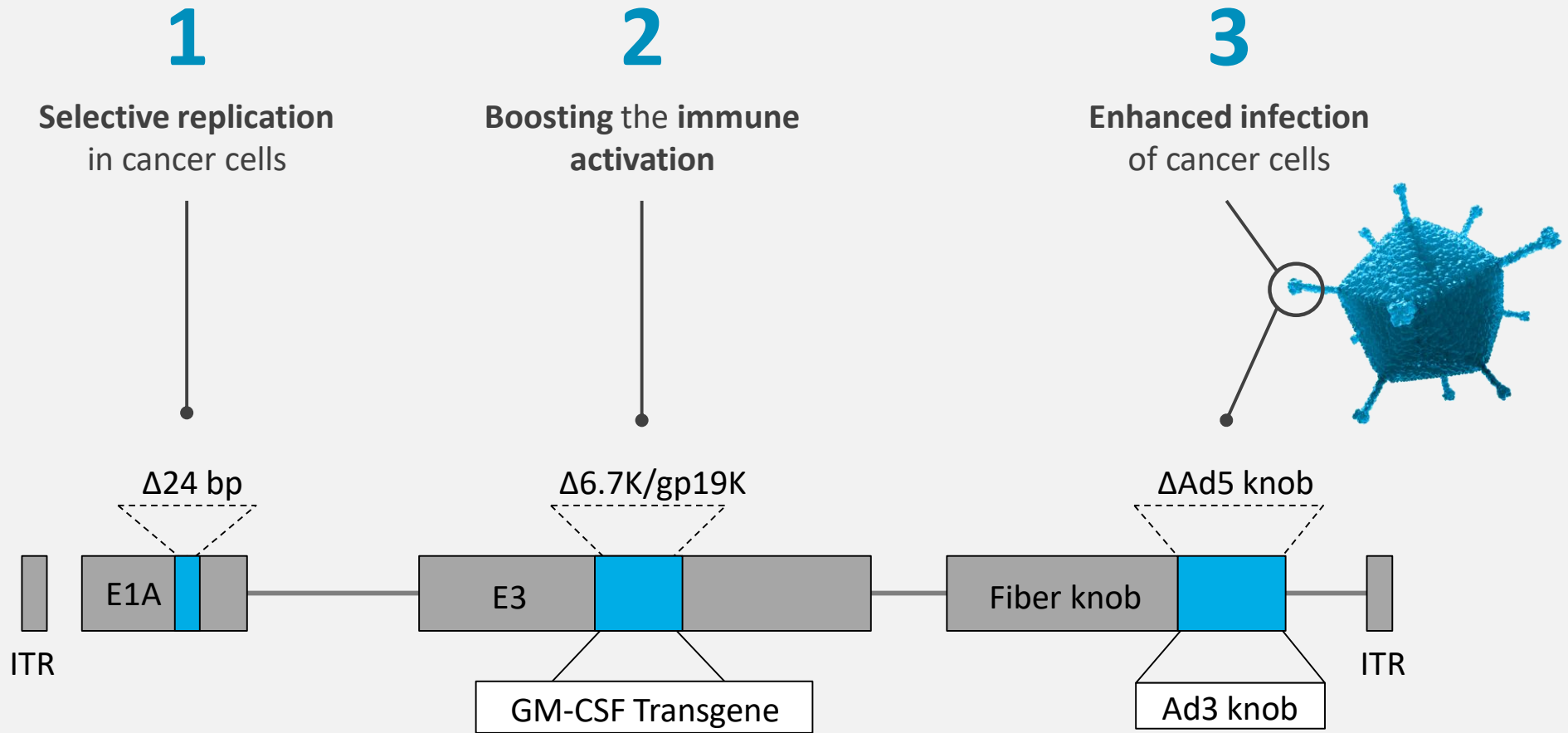
¹ Immune Checkpoint Inhibitors Markets Report, 2020 January, ResearchAndMarkets.com

² Estimation of the Percentage of U.S. Patients With Cancer Who Are Eligible for and Respond to Checkpoint Inhibitor Immunotherapy Drugs, JAMA Netw Open. 2019 May; 2(5), Haslam A., Prasad V.

SEVERAL SIGNIFICANT ONCOLYTIC VIRUS TRANSACTIONS

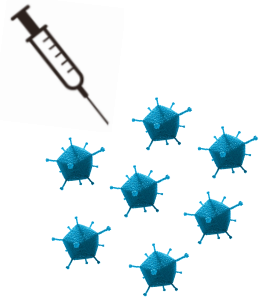
Acquirer	Target	Type of deal	Deal value
		Strategic collaboration Co-development of multiple vaccinia viruses, Pre-clinical	USD 120m near-term USD >900m total value
		M&A RNA virus, Phase II	USD 400m cash acquisition
		M&A Herpes virus, Pre-clinical	USD 140m up-front USD 1b total value
		M&A VSV virus, Pre-clinical	USD 250m cash acquisition
		R&D partnership Co-development of novel vaccinia viruses, Pre-clinical	USD 10m up-front Unknown total value

ONCOS-102 IS AN ONCOLYTIC ADENOVIRUS SEROTYPE 5 ARMED WITH AN IMMUNE ACTIVATING TRANSGENE



ONCOS-102 DRIVES A STRONG IMMUNE RESPONSE TRIGGERING ANTI-TUMOR IMMUNITY

1 Virus injection



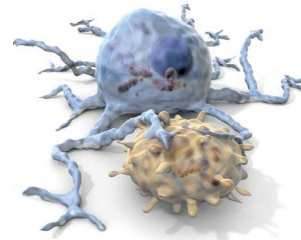
- Intratumoral or intra-peritoneal injection
- Tumor cell infection

2 Immune activation



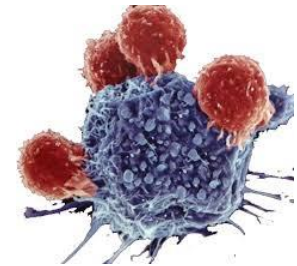
- Oncolysis of tumor cells
- Inflammatory response by TLR-9 and other pathways
- Tumor antigen release

3 T-cell generation










- Antigen processing stimulated by GM-CSF
- T-cell activation in lymph nodes

4 Anti-tumor immunity



- T-cell tumor infiltration
- Tumor cell killing
- Synergy with checkpoint inhibitors

SOLID CLINICAL AND PRECLINICAL PIPELINE

Product candidate	Preclinical	Phase 1	Phase 2	Collaborator	Next expected event
ONCOS-102	Mesothelioma Combination w/ pemetrexed/cisplatin			 MERCK	1H 2021 Survival updates Define next steps
	Melanoma Combination w/Keytruda				1H 2021 Define next steps
	Colorectal cancer Combination w/Imfinzi			 	<i>Update by collaborator</i>
	Prostate cancer Combination w/DCvac				<i>Update by collaborator</i>
ONCOS-200 series	Next Gen viruses				<i>Updates at conferences</i>
Novel mutRAS concepts					
					

Product candidate	Preclinical	Phase I	Phase II	Collaborator	Next expected event
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ONCOS-102	Melanoma Combination w/Keytruda				
	Colorectal Combination w/Imfinzi				
	Prostate Combination w/DCvac				
ONCOS-200 series	Next Gen viruses				
Novel mutRAS concepts					

ONCOS-102 ANTI-PD1 REFRACTORY MELANOMA

35% ORR AND SYSTEMIC EFFECT

Patient population

- Advanced, unresectable **melanoma**
- Disease **progression** despite prior treatment with anti-PD1
- Poor prognosis, with **few treatment alternatives**
- 20 patients, 11 stage III and 9 stage IV

Treatment regime

- **Part 1: 3 ONCOS-102 injections** followed by 5 months of Keytruda
- **Part 2: 12 ONCOS-102 injections** - priming and concomitantly

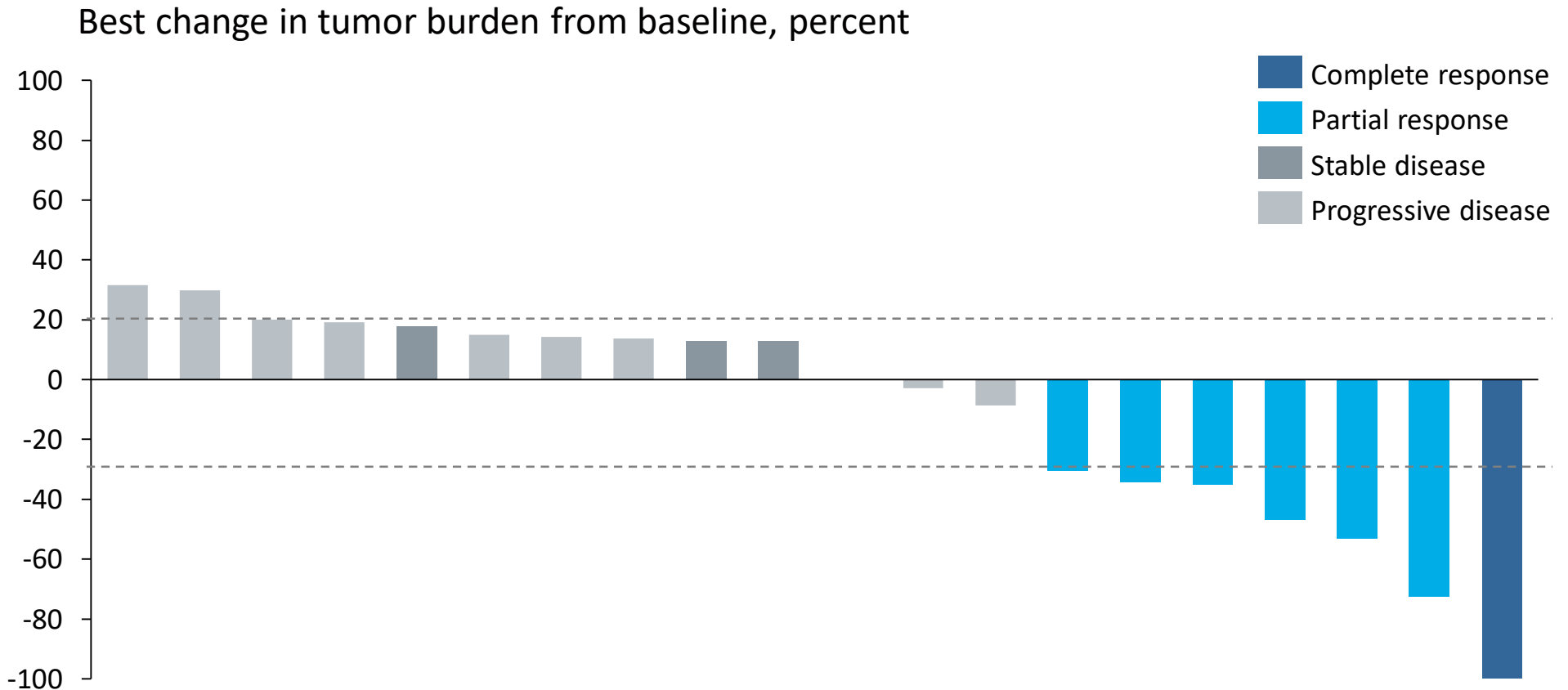
Clinical data

- **35% ORR** by RECIST 1.1 and irRECIST
 - 1 Complete Response (CR)
 - 6 Partial Responses (PR)
- Multiple examples of **systemic effect**
- Robust systemic and local **immune activation**
- Well tolerated, no safety concerns

PATIENT DEMOGRAPHICS – MORE ADVANCED DISEASE IN PART 2

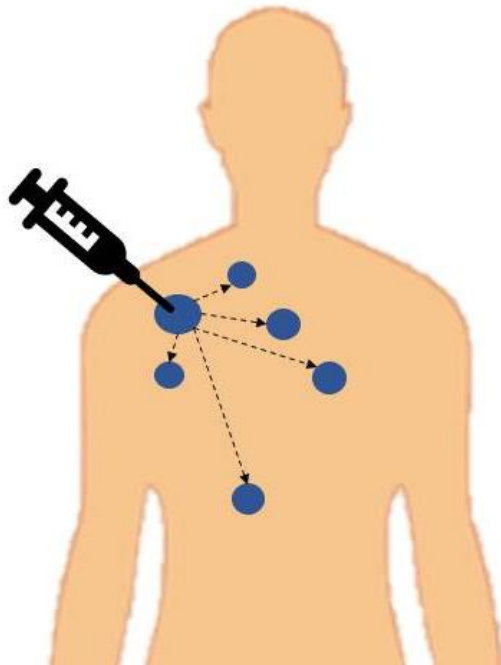
Parameters	Part 1 (n=8)	Part 2 (n=12)	Total (N=20)
Median time from diagnosis to start ONCOS-102 (years)	6.9	2.9	4.5
Average number of checkpoint inhibitor treatments prior to study	1.8	2.3	2.2
Average number of lesions at baseline	4.5	9.1	7.3
Average tumor burden targeted lesions at baseline (mm)	50.3	74.4	64.7
Stage of patients			
- III	6	5	11
- IV	2	7	9

BEST-IN-CLASS RESPONSE RATE WITH ORR OF 35%



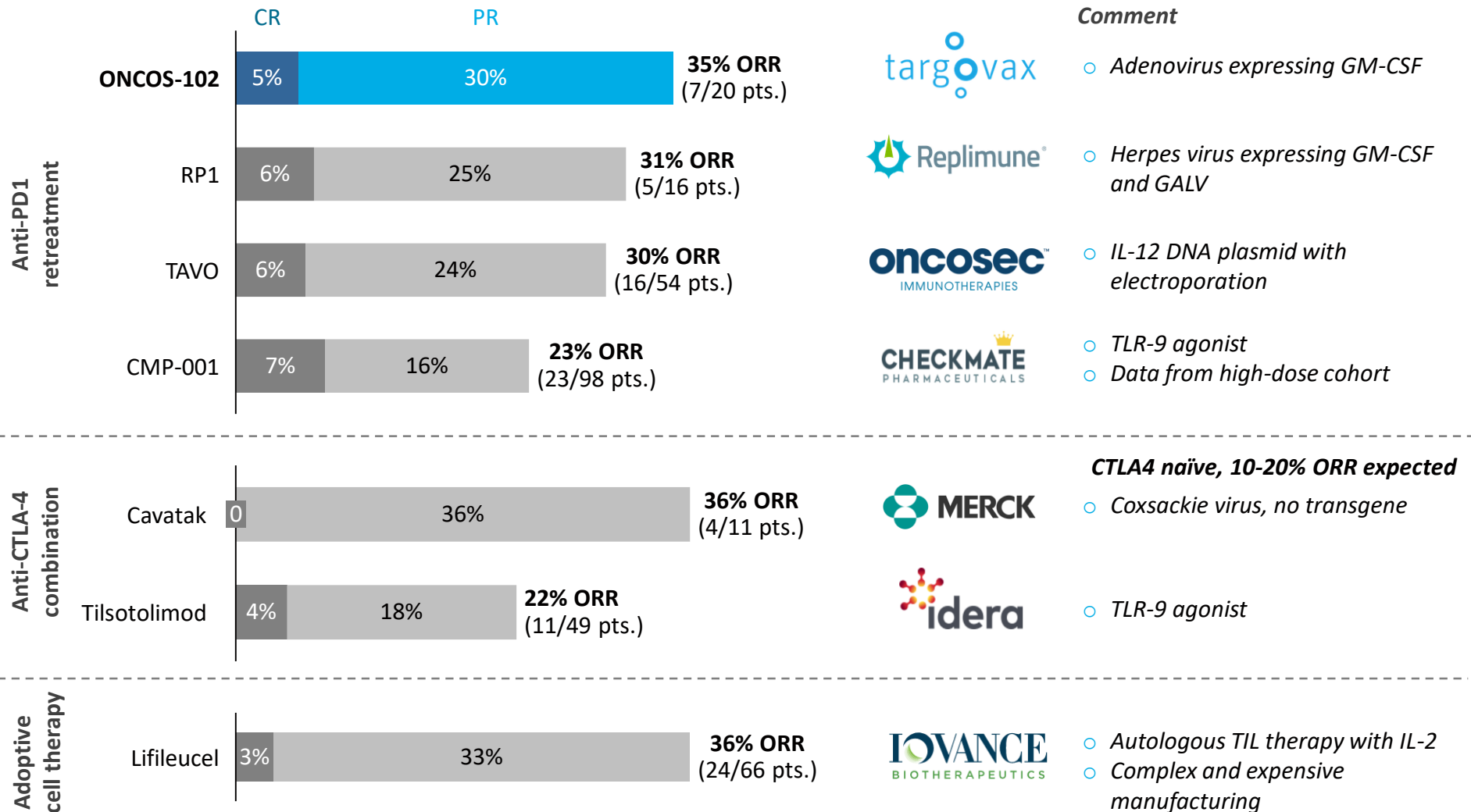
MULTIPLE EXAMPLES OF SYSTEMIC (ABSCOPAL) EFFECT

TWO PATIENTS WHERE A NON-INJECTED LESION COMPLETELY DISAPPEARED



- Findings are based on **early data** assessment, systemic effects will be further assessed
- Used threshold of **tumor reduction of 30%¹** or more in a lesion
- Observed in patients in both Part 1 and 2
- **Complete remission** of non-injected lesion seen in two patients

ONCOS-102 EFFICACY IS COMPETITIVE TO LEADING DRUG CANDIDATES IN ANTI-PD1 REFRACTORY MELANOMA



SUMMARY: EXCELLENT OUTCOME SUPPORT CONTINUED DEVELOPMENT IN ANTI-PD1 REFRACTORY MELANOMA



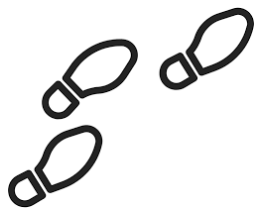
Excellent safety profile confirmed

- ONCOS-102 and Keytruda **combination is well-tolerated**



Excellent clinical outcome

- **35% ORR:** Tumor responses were observed in 7 out of 20 evaluable patients
- **Systemic effect:** Tumor regression in non-injected lesions observed in multiple patients, including two lesions that regressed completely
- Confirmed ONCOS-102 ability to **reactivate CPI refractory tumors**



Next steps

- Planning for a **confirmatory melanoma trial** in combination with anti-PD1 checkpoint inhibitor
- Analyze more **immunological data**

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ONCOS-200 series	Next Gen viruses				
Novel mutRAS concepts					

HIGH NEED FOR NEW TREATMENT APPROACHES IN MALIGNANT PLEURAL MESOTHELIOMA



Surgery

Only 10% of patients suitable for resection

Often diagnosed too late for surgery

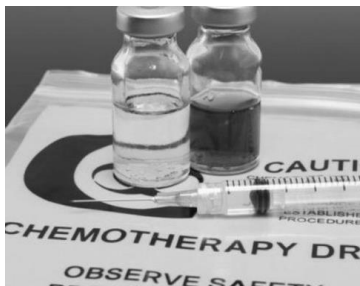
Technically challenging

Radiotherapy

Rarely effective due to tumor shape

Hard to focus radiation

Mainly palliative care



Chemotherapy

Standard of care (SoC) with limited efficacy

Only approved option is pemetrexed/cisplatin

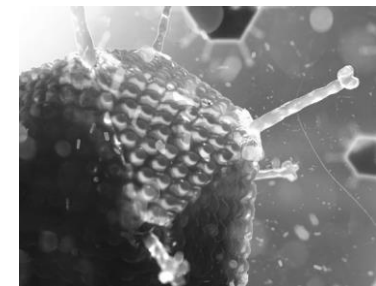
6 months mPFS and 12 months mOS in 1st line

Immunotherapy

Ipi/nivo approved in 1st line disease (US only)

CPIs included in NCCN guidelines as 2nd line option

CPI + SoC trials ongoing

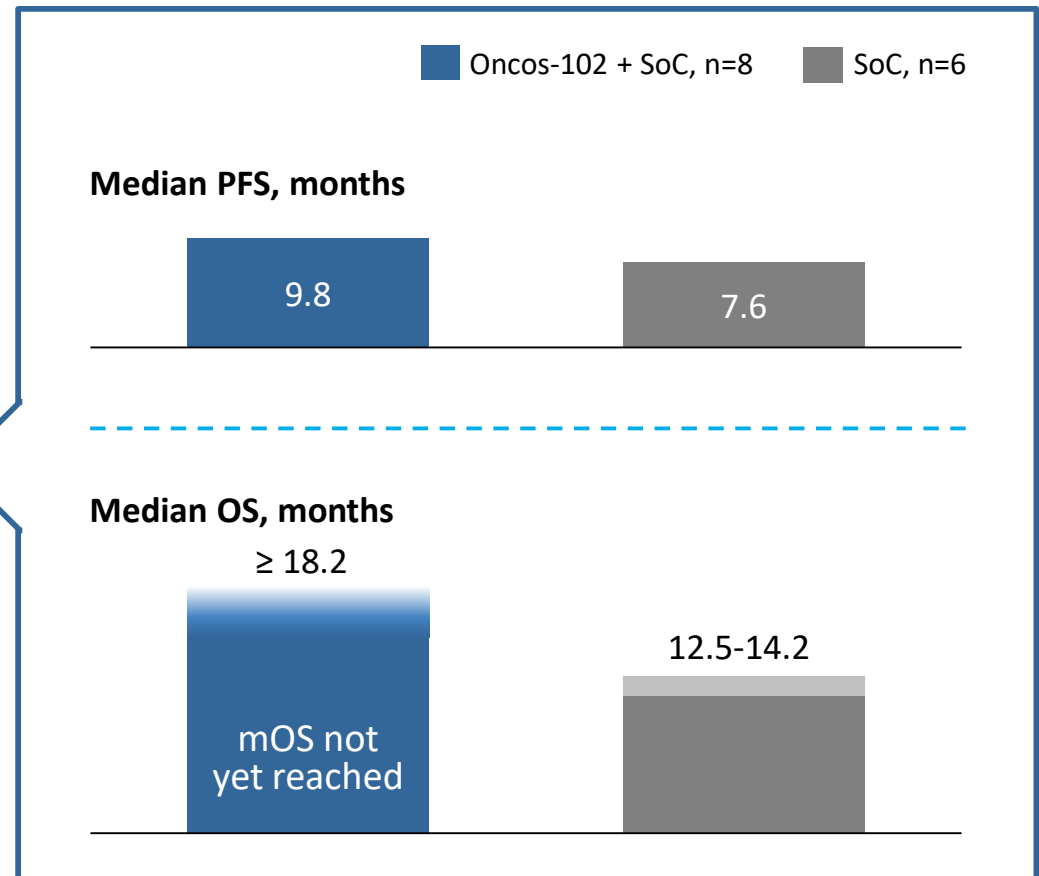


ONCOS-102 MESOTHELIOMA PHASE 1/2 COMBINATION WITH SoC CHEMO ENCOURAGING CLINICAL OUTCOMES IN 1ST LINE

Trial design

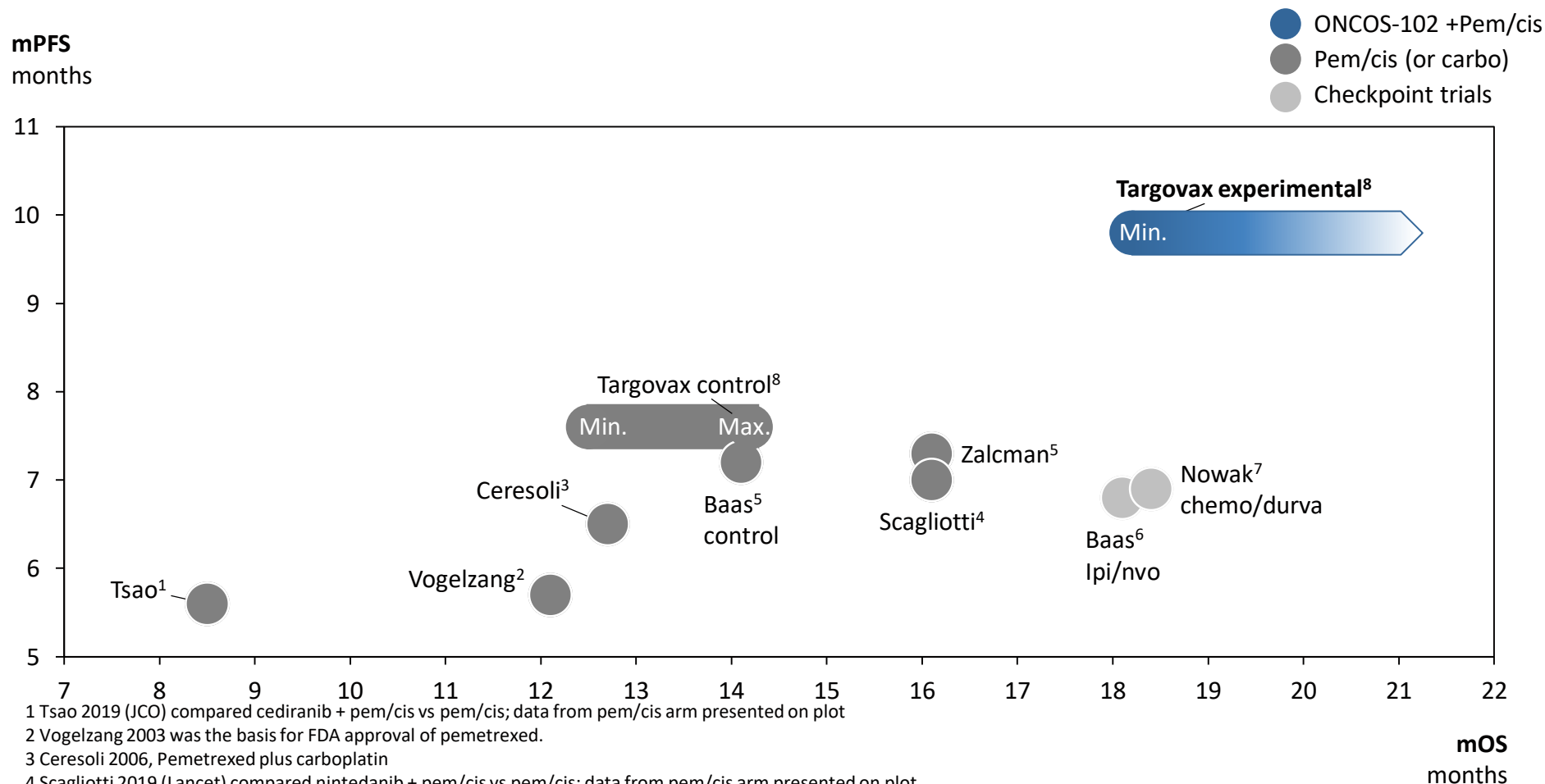
- 1st and 2nd (or later) line
- ONCOS-102: 6 intra-tumoral injections
- SoC chemo: pemetrexed and cisplatin, 6 cycles

	Safety lead-in n=6	Experi- mental n=14	Control n=11
1 st line	3	8	6
2 nd (or later) line	3	6	5



mOS: median Overall Survival. mPFS: median Progression Free Survival

FIRST LINE DATA ARE MATURING AND ALREADY COMPETITIVE - MOS WILL BE 18.2 MONTHS OR MORE



1 Tsao 2019 (JCO) compared cediranib + pem/cis vs pem/cis; data from pem/cis arm presented on plot

2 Vogelzang 2003 was the basis for FDA approval of pemetrexed.

3 Ceresoli 2006, Pemetrexed plus carboplatin

4 Scagliotti 2019 (Lancet) compared nintedanib + pem/cis vs pem/cis; data from pem/cis arm presented on plot

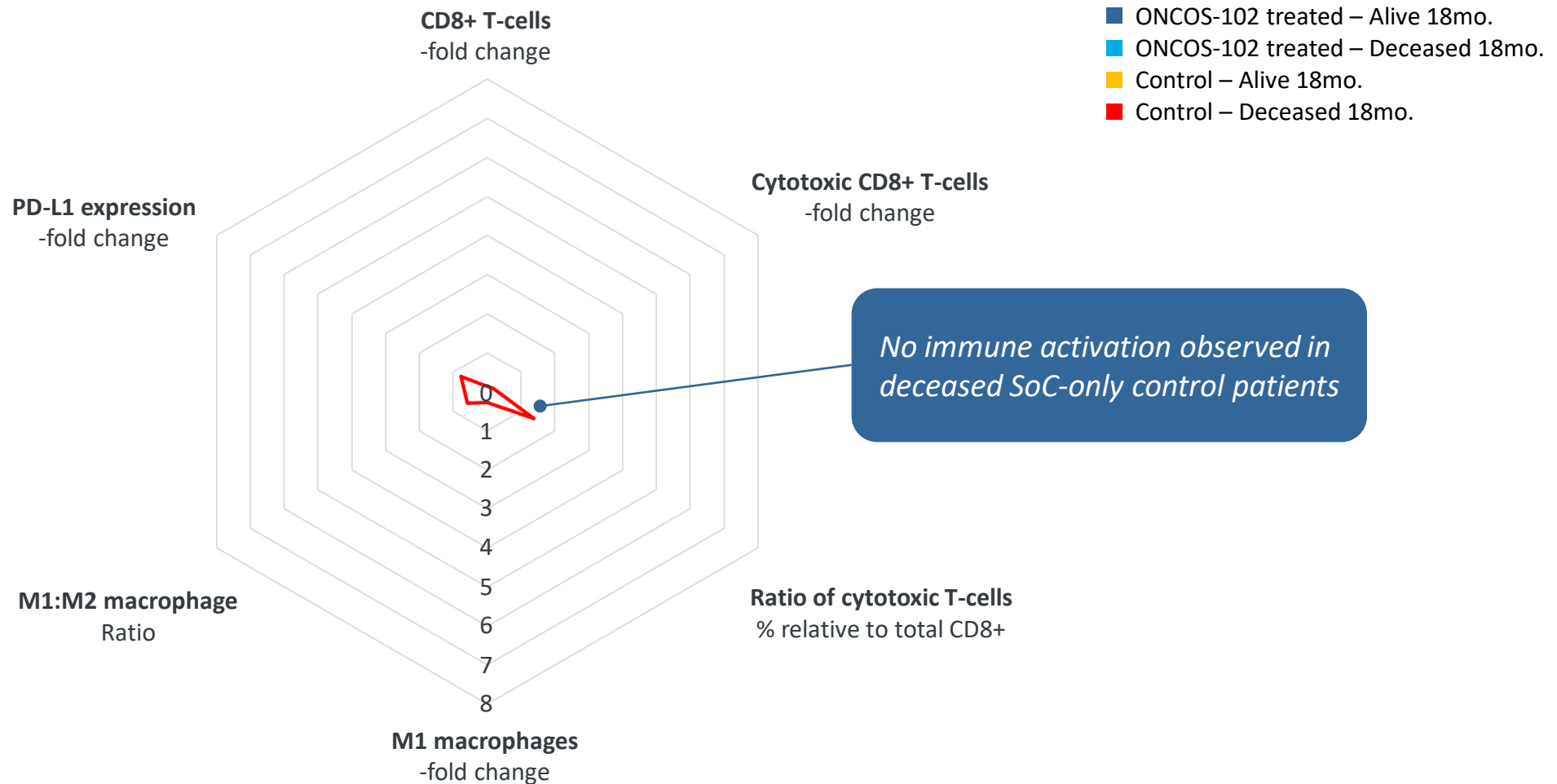
5 Zalcman 2016 (Lancet) compared bevacizumab + pem/cis vs pem/cis; data from pem/cis arm presented on plot.

6 Baas 2020 CheckMate 743. Nivolumab + ipilimumab for two years vs pem/cis (or carboplatin). Ipi/nivo was approved in first line by FDA on October 2, 2020.

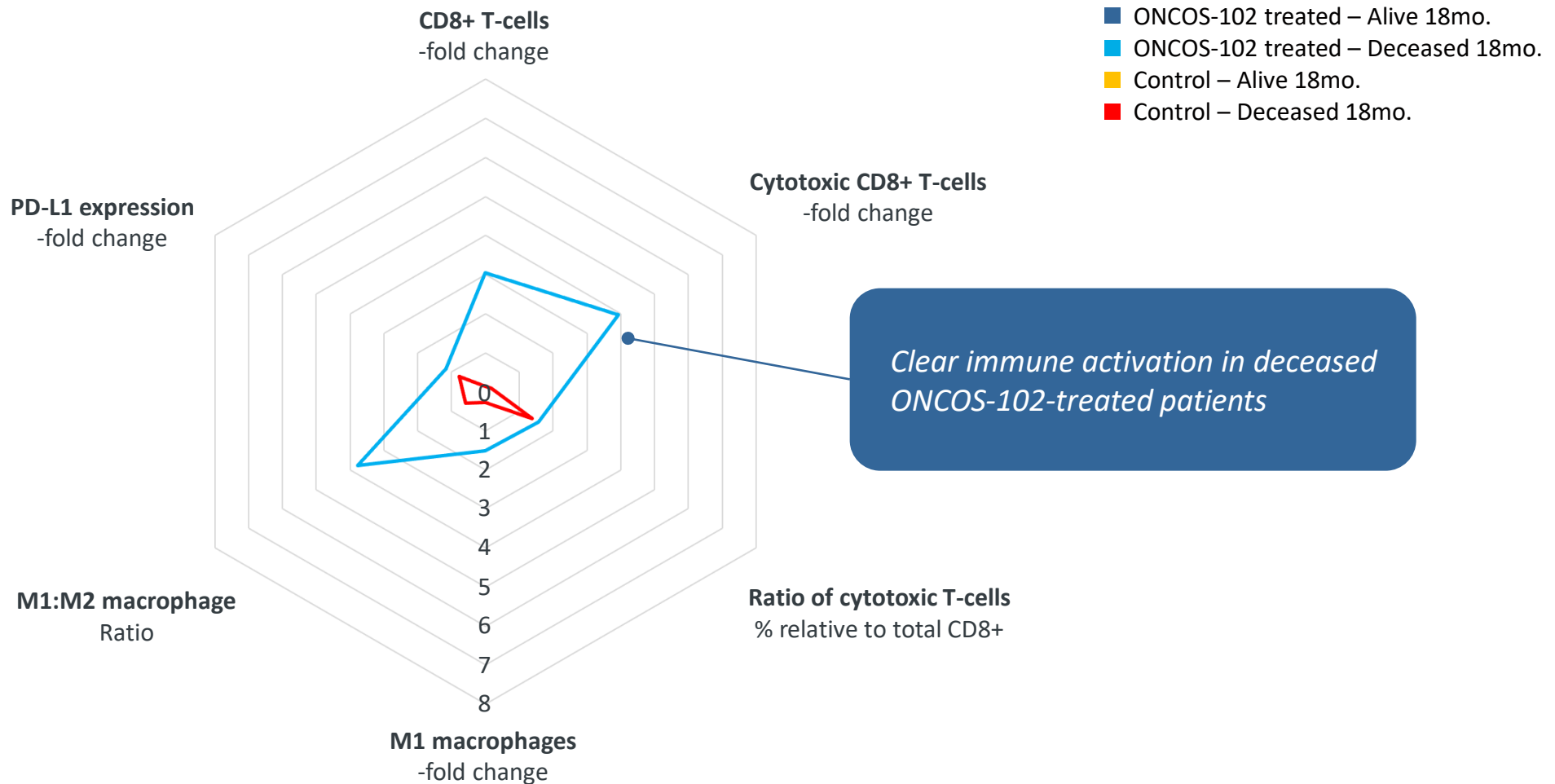
7 Nowak 2020 (Lancet Oncology) Pem / cis (6 cycles) + durvalumab (12 months)

8 1L randomized patients mOS will change: Experimental group, 8 patients (5 censored). Control group, 6 patients (2 censored)

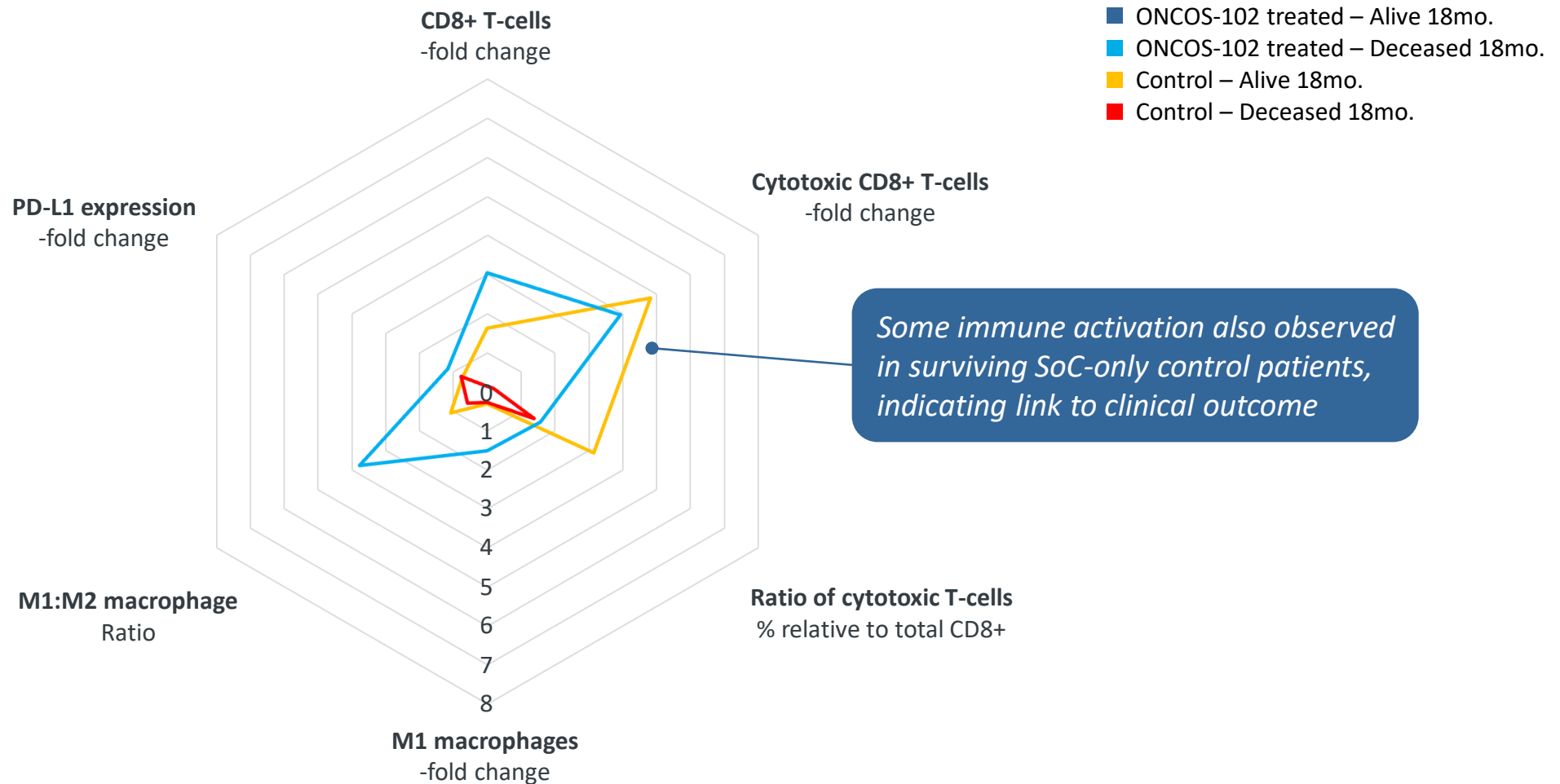
LEVEL OF IMMUNE ACTIVATION PREDICTIVE OF CLINICAL OUTCOME (1 OF 4)



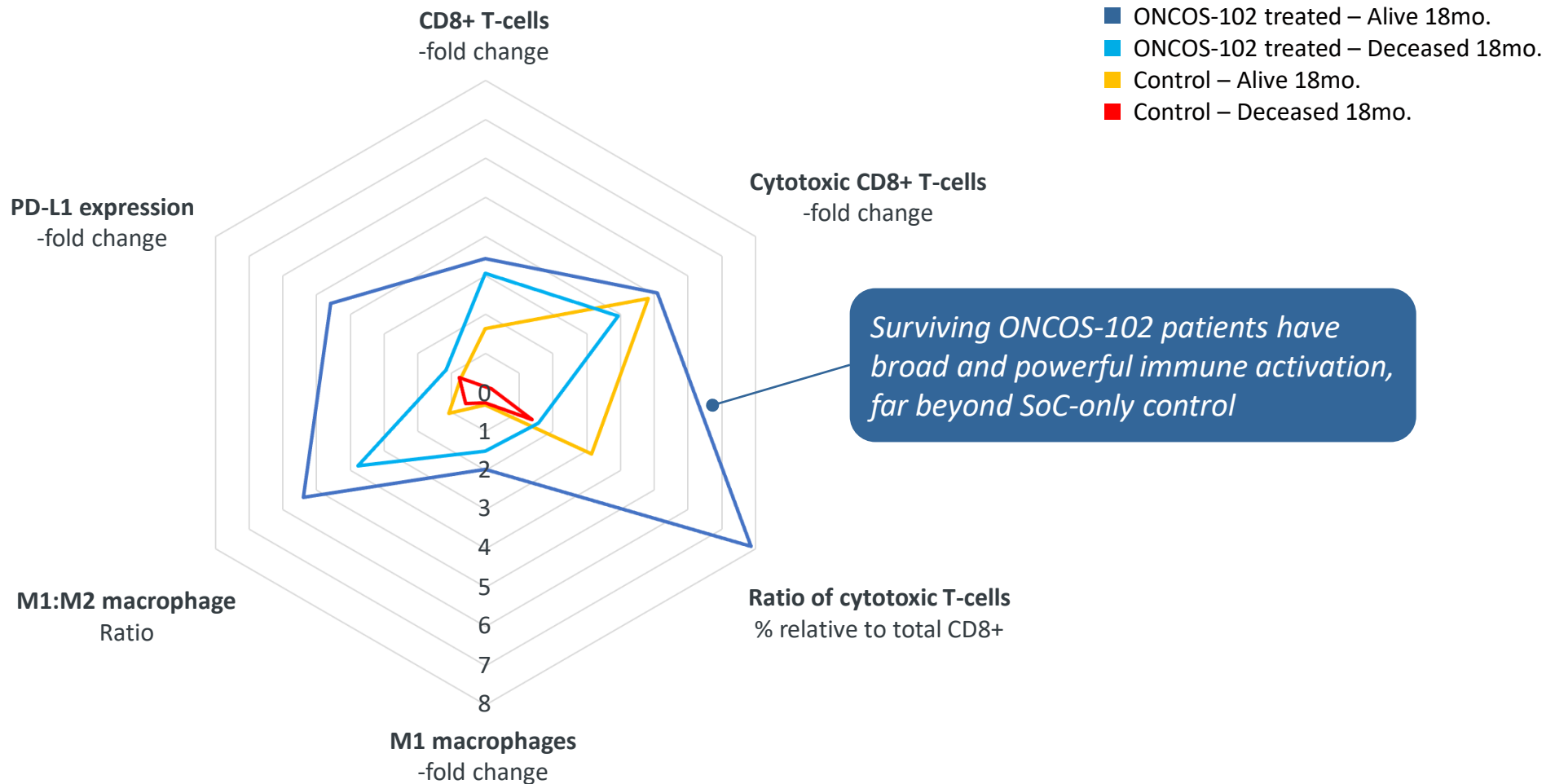
LEVEL OF IMMUNE ACTIVATION PREDICTIVE OF CLINICAL OUTCOME (2 OF 4)



LEVEL OF IMMUNE ACTIVATION PREDICTIVE OF CLINICAL OUTCOME (3 OF 4)



LEVEL OF IMMUNE ACTIVATION PREDICTIVE OF CLINICAL OUTCOME (4 OF 4)



CLINICAL AND IMMUNE DATA SUPPORT TRIPLE COMBINATION WITH CHECKPOINT INHIBITOR



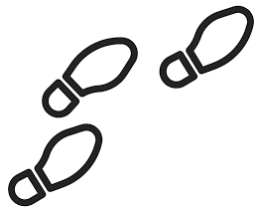
Excellent safety profile confirmed

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



Clear clinical activity

- **mOS not yet reached** but at least 18.2 months
- **mPFS of 9.8 months** in first line randomized ONCOS-102 treated patients
- Broad and powerful **immune activation** associated with **clinical benefit**



Next steps

- **First line** identified as **target population** for further development
- Strong rationale for **combination with anti-PD1/L1 checkpoint inhibitor and SoC chemotherapy** - Collaboration established with **Merck**

Product candidate	Preclinical	Phase I	Phase II	Collaborator	Next expected event
	Mesothelioma Combination w/ pemetrexed/cisplatin				
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ONCOS-102	Colorectal cancer Combination w/Imfinzi				
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ONCOS-200 series	Next Gen viruses				
Novel mutRAS concepts					

STRONG COLLABORATION IN COLORECTAL CANCER WITH PHASE 1/2 TRIAL COMBINING ONCOS-102 AND IMFINZI

Collaboration



Patient population

- Colorectal cancer with peritoneal metastases
- Refractory to standard-of-care platinum chemotherapy
- Intraperitoneal admin of ONCOS-102

Dose escalation

Safety lead-in

ONCOS-102
(6 IP doses)
+
Imfinzi (12 cycles)

Part 1
13 patients

Expansion

*DCR
criterion
met*

*Simon's
two-stage
design*

Part 2
14 patients

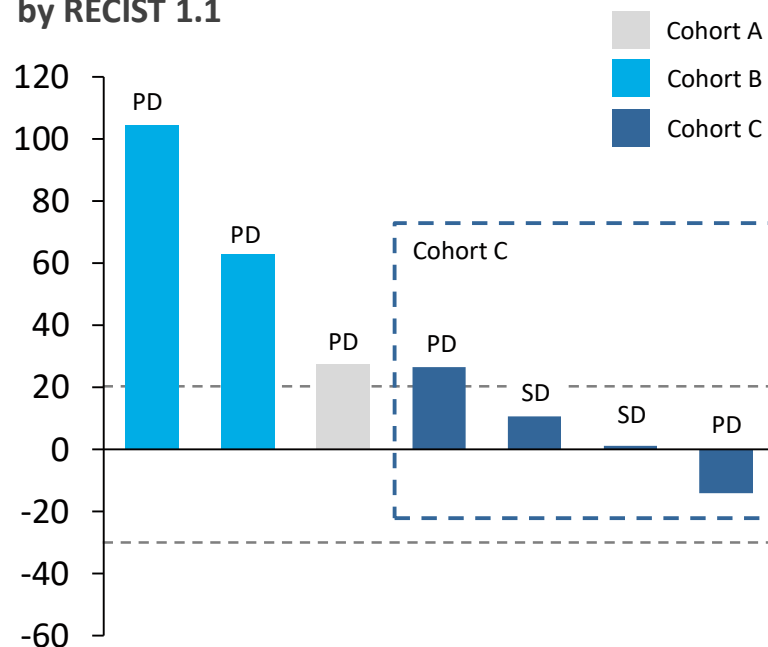
ASCO 2020: Dose Escalation part presented showing clinical activity as well as immune activation, and acceptable safety profile with no DLTs observed

SIGNS OF EFFICACY AND DOSE RESPONSE IN SAFETY LEAD-IN

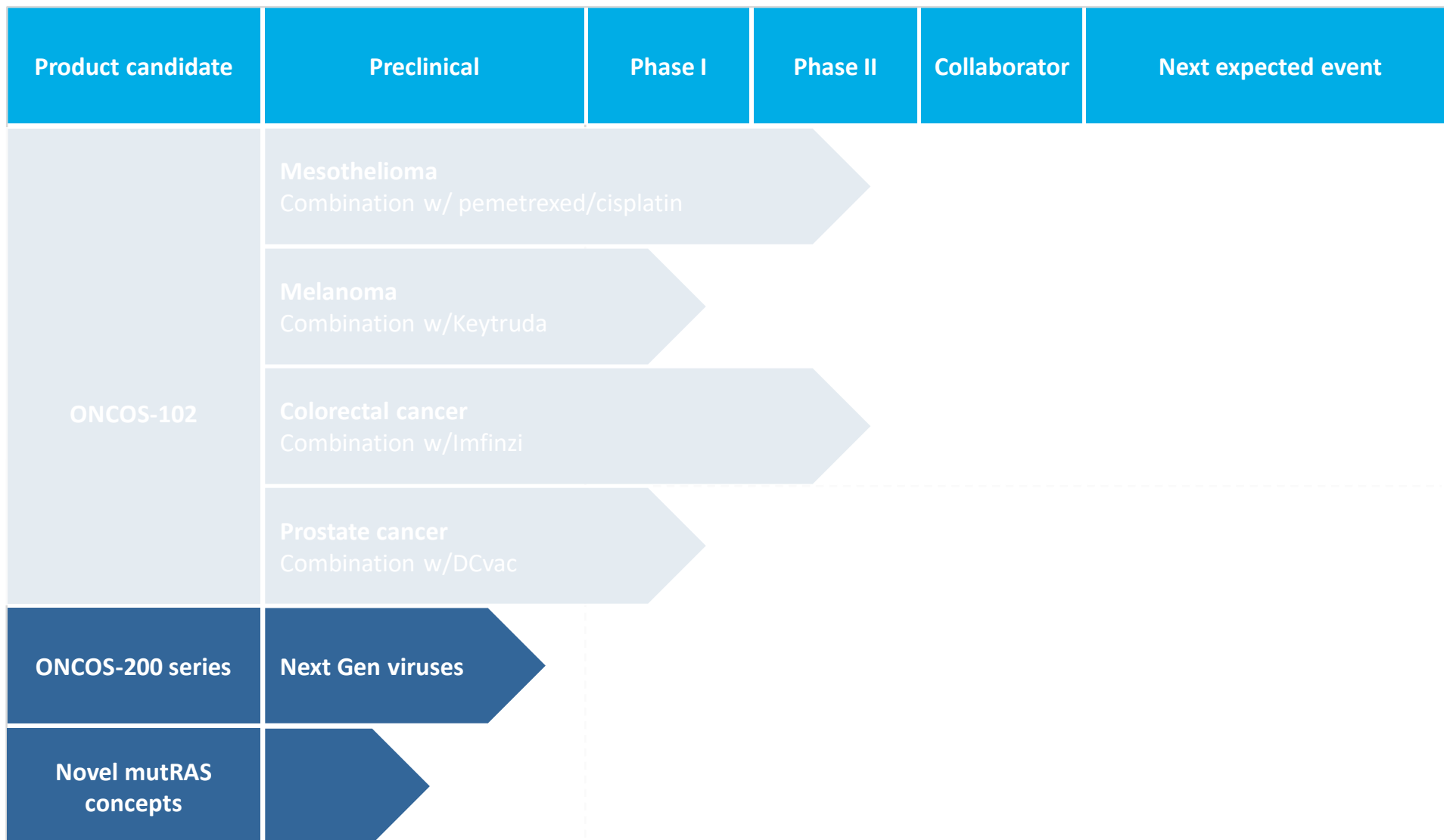
Dosing cohorts	Disease control (best response)
A: Low-dose ONCOS-102 then Imfinzi	0 of 2
B: Low-dose ONCOS-102 + Imfinzi	0 of 2
C: Standard dose ONCOS-102 + Imfinzi	2 of 5

Cohort C did not raise safety concerns, and was the dosing selected for Part 1 and Part 2 expansion

Tumor change¹ and best overall response by RECIST 1.1



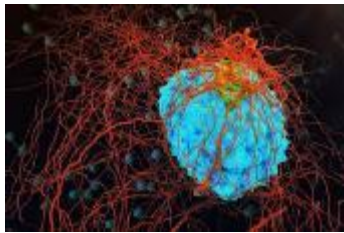
¹ Tumor change is based on the patient's best overall response or first indication of progression (if PD was the best response). % change = $\frac{[(\text{Sum of diameters at best response or first indication of PD} - \text{Sum of diameters at baseline}) \div \text{sum of diameters at baseline}] \times 100}{1}$. One patient in Cohort C is not in waterfall plot, as RECIST data are not available; clinical PD was documented.



NEXT GENERATION ONCOS VIRUSES HAVE DOUBLE TRANSGENES AND DISTINCT MODES OF ACTION

Mode of action

Target tumors

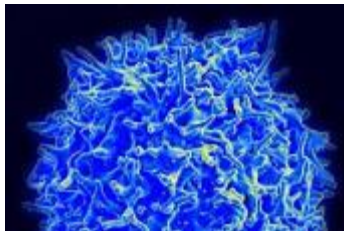


ONCOS-210 & -212

Inhibition of tumor growth and vascularization

- Interfere with tumor's ability to break down surrounding tissue
- Induce cell cycle arrest
- Inhibit angiogenesis

- Highly invasive or metabolic tumors

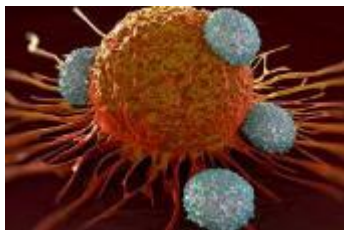


ONCOS-211

Counteract immune-suppressive tumor microenvironment

- Remove inhibitory molecules from tumor microenvironment
- Activate T-cells

- "Cold" uninflamed tumors



ONCOS-214

Enhanced cell killing properties

- Induce immunogenic cell death
- Extend cell killing ability to neighboring non-infected cells

- High-stroma tumors

EXPANDING MUTANT RAS PLATFORM THROUGH STRATEGIC PARTNERSHIPS

Targovax mutRAS immunotherapy strategy

Expand mutRAS clinical use
Clinical stage

- Test new indications
- Test new combinations
- Test new adjuvant
- Clinical out-licensing and collaborations

Ongoing mutRAS initiatives



IOVAXIS THERAPEUTICS

Option to license TG vaccines for Greater China and Singapore



Possible investigator sponsored trials - Novel therapeutic combination strategies

Next generation mutRAS concepts
Pre-clinical discovery

- Innovative, first-in-class mutRAS IO concepts
- Leverage ONCOS platform
- Strategic R&D partnerships



Oncolytic virus w/ mutRAS vaccine coating - Coat ONCOS-102 with mutant RAS neoantigen PeptiCRad peptides



Oncolytic virus w/ mutRAS antibody payload - Express AbiProt mutant RAS targeting antibodies from ONCOS backbone

FUNDED WELL BEYOND IMPORTANT VALUE INFLECTION POINTS

The company

Cash at end of 3Q

78 / 8

NOK million

USD million

Raised NOK
75m in
Oct 2020

Net cash flow - total 3Q

-24 / -2.5

NOK million

USD million

Market cap

730 / 85

NOK million

USD million

Analyst coverage

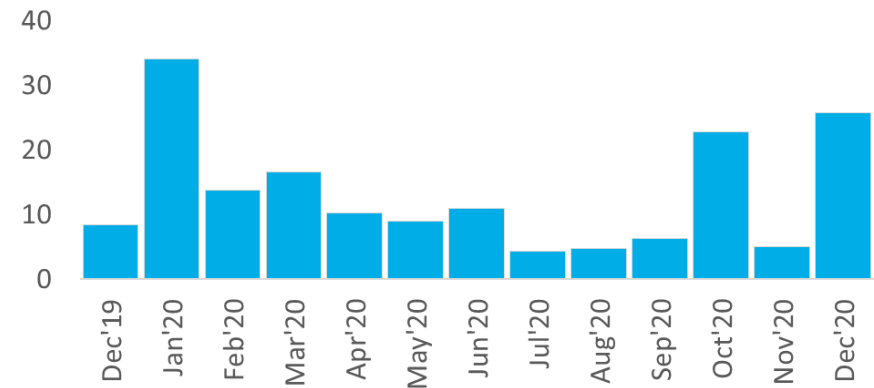
Carnegie, DNB, H.C. Wainwright

Share liquidity

~200% of shares traded last 12 months

Share turnover per month¹

Million shares



Daily value traded

Average last 12 months

3.6 / 0.42

NOK million

USD million

IN SUMMARY



Lead product ONCOS-102 directed to the \$20+ billion market for checkpoint inhibitors

- Poised to lead and grow the global market for checkpoint inhibitors (CPIs) with lead product, ONCOS-102
- By activating the immune system, ONCOS-102 may enhance CPI sensitivity and expand the market

Class-leading clinical data in monotherapy & combinations w/ chemo & CPI

- Clinical and immune data in >200 patients as monotherapy, plus in combo with chemo and CPIs
- 35% ORR in advanced anti-PD1 refractory melanoma
- Promising survival data in mesothelioma

Powerful immune activation supporting IO-combinations

- Documented broad and deep activation of key immune cells and mechanisms
- Potential to enter registrational program in anti-PD1 refractory melanoma
- Potential registrational program in mesothelioma in collaboration with Merck

Pipeline with multiple additional value-creating opportunities

- Several collaborations established
- Exploring novel assets with ONCOS as a payload vehicle for delivering other drugs
- Next-generation mutant RAS targeting compounds with both company- and investigator-sponsored trials

Strong patent position & robust leadership team

- Patent protection on ONCOS-102 through 2036; recently issued European CPI combo patent
- Talented, experienced management team committed to driving success