

ACTIVATING THE IMMUNE SYSTEM TO FIGHT CANCER

Bryan Garnier Virtual European
Healthcare Conference 2020

November 17, 2020

targovax

OSE:
TRVX

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INVESTMENT HIGHLIGHTS



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

Encouraging clinical and immune data with ONCOS-102

Pipeline with multiple additional value-creating opportunities

Active near-term news flow includes significant trial data

Strong patent position & robust leadership team

MEDICAL NEED FOR IMMUNE ACTIVATORS

CPIs are revolutionizing cancer therapy...

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

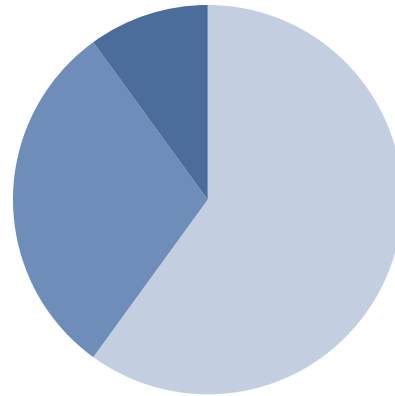
...leading to a high medical need for immune activators

\$20+ bn

Global CPI market¹

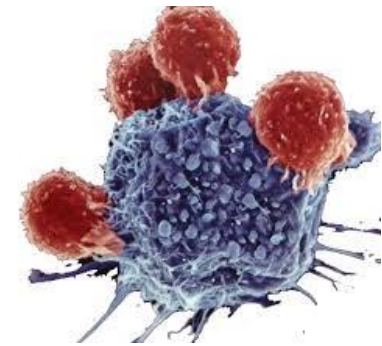
44%

Patients eligible for CPI²:



10 - 40%











Responders



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

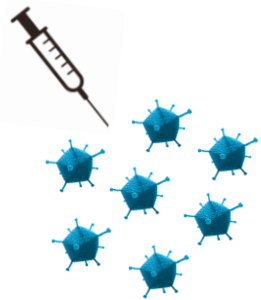
² Estimation of the Percentage of U.S. Patients With Cancer Who Are Eligible for and Respond to Checkpoint Inhibitor Immunotherapy Drugs, JAMA Netw Open. 2019 May; 2(5), Haslam A., Prasad V.

INDUSTRY SUPPORT FOR ONCOLYTIC VIRUS APPROACH

Acquirer	Target	Type of deal	Deal value
		Strategic collaboration Co-development of multiple vaccinia viruses, preclinical	USD 120m near term USD >900m total value
		M&A RNA virus, Phase 2	USD 400m cash acquisition
		M&A Herpes virus, preclinical	USD 140m up-front USD 1b total value
		M&A VSV virus, preclinical	USD 250m cash acquisition
		R&D partnership Co-development of novel vaccinia viruses, preclinical	USD 10m up-front Unknown total value

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

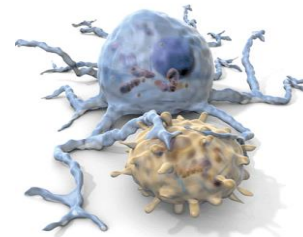
Virus injection



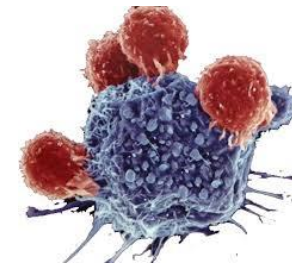
Immune activation



T-cell generation



Anti-tumor immunity










- Intra-tumoral or intra-peritoneal injection
- Tumor cell infection
- Armed with immune-activating transgene

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

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

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

PIPELINE FEATURES COMBINATIONS & PARTNERSHIPS

Product candidate	Preclinical	Phase 1	Phase 2	Collaborator	Next expected event
ONCOS-102	Mesothelioma Combination w/ pemetrexed/cisplatin			 MERCK	2H 2020 Survival data
	Melanoma Combination w/Keytruda				2H 2020 Part 2 clinical data
	Colorectal Combination w/Imfinzi			 AstraZeneca  CANCER RESEARCH INSTITUTE	<i>Update by collaborator</i>
	Prostate Combination w/DCvac			 sotio	<i>Update by collaborator</i>
ONCOS-200 series	Next Gen viruses			 leidos	<i>Updates at conferences</i>
Novel mutRAS concepts				 VALO THERAPEUTICS  OBLIQUE THERAPEUTICS	

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	Colorectal Combination w/Imfinzi				
	Prostate Combination w/DCvac				
ONCOS-200 series	Next Gen viruses				
Novel mutRAS concepts					

PRESSING NEED FOR NEW TREATMENT APPROACHES IN MALIGNANT PLEURAL MESOTHELIOMA



Surgery

Only 10% of patients suitable for resection

Often diagnosed too late for surgery

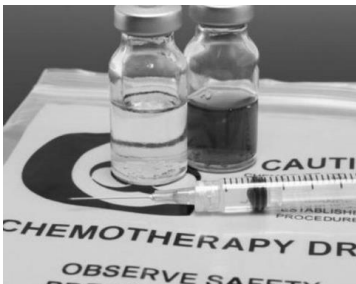
Technically challenging

Radiotherapy

Rarely effective due to tumor shape and location

Hard to focus radiation

Mainly palliative care



Chemotherapy

Standard of care (SoC) with limited efficacy

Only approved option is pemetrexed/cisplatin

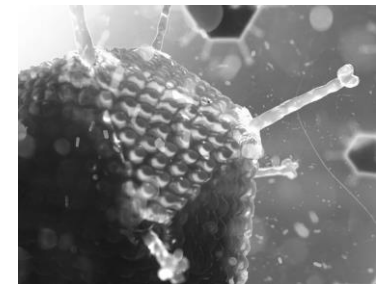
6-months mPFS and 12-months mOS in 1st line

Immunotherapy

Mixed signals from early CPI trials

CPIs included in NCCN guidelines as 2nd-line option

FDA approval of ipi/nivo in 1st line October 2020



ONCOS-102 MESOTHELIOMA PHASE 1/2 COMBINATION WITH SoC CHEMO

ENCOURAGING CLINICAL OUTCOMES IN 1ST LINE

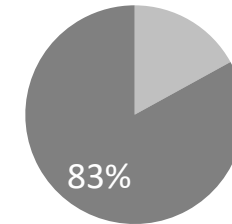
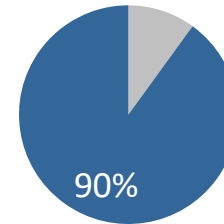
Trial design

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

	Experimental n=20	Control n=11
1 st line	11	6
2 nd (or later) line	9	5

Disease control rate

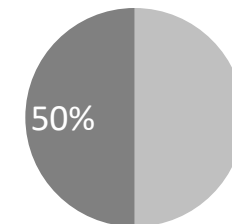
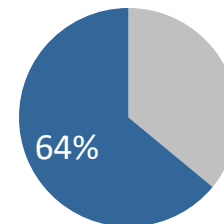
■ Experimental ■ Control



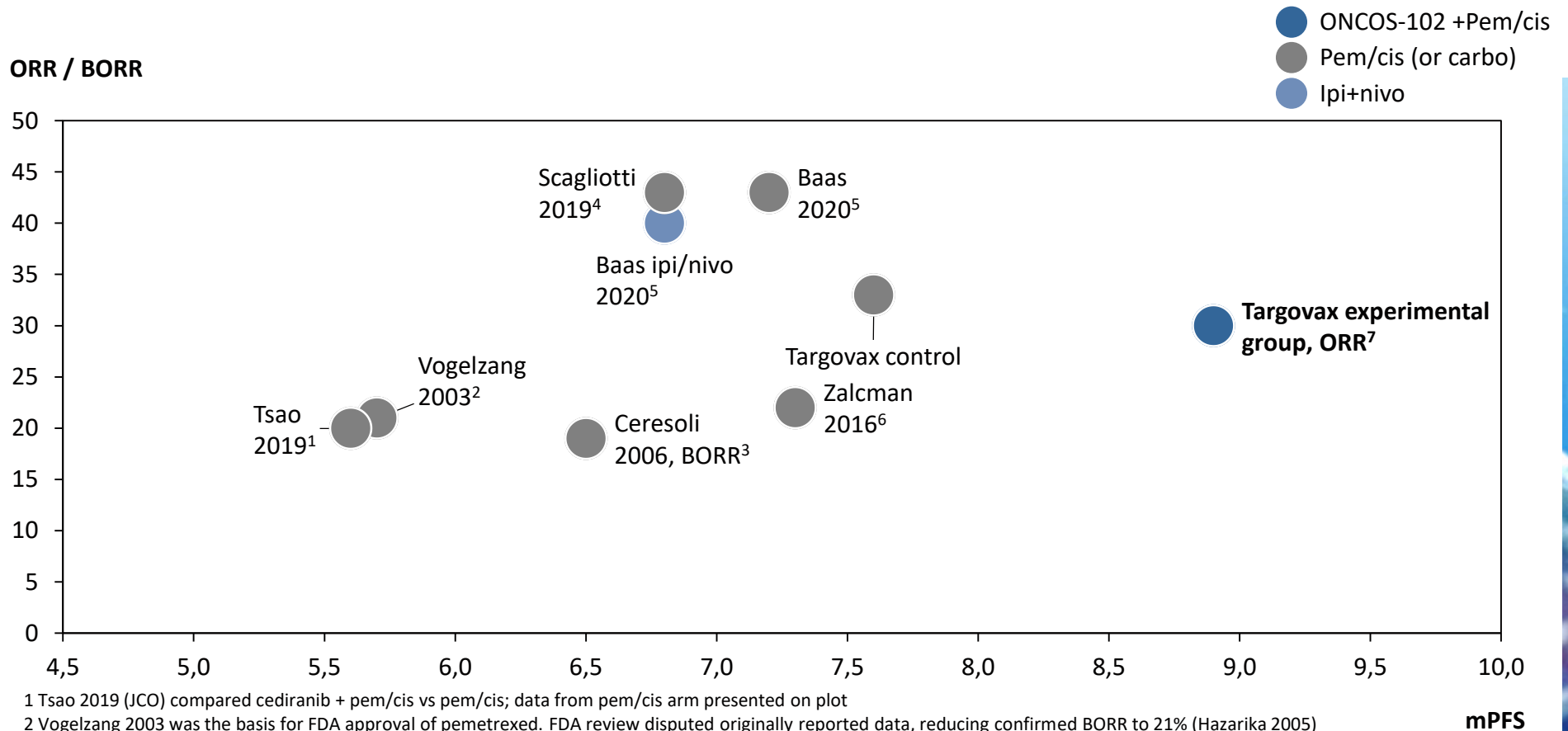
Median PFS, months



12-month survival rate



1ST LINE ORR & PFS DATA COMPARE FAVORABLY TO HISTORICAL CONTROL



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. FDA review disputed originally reported data, reducing confirmed BORR to 21% (Hazarika 2005)

3 Pemetrexed plus carboplatin

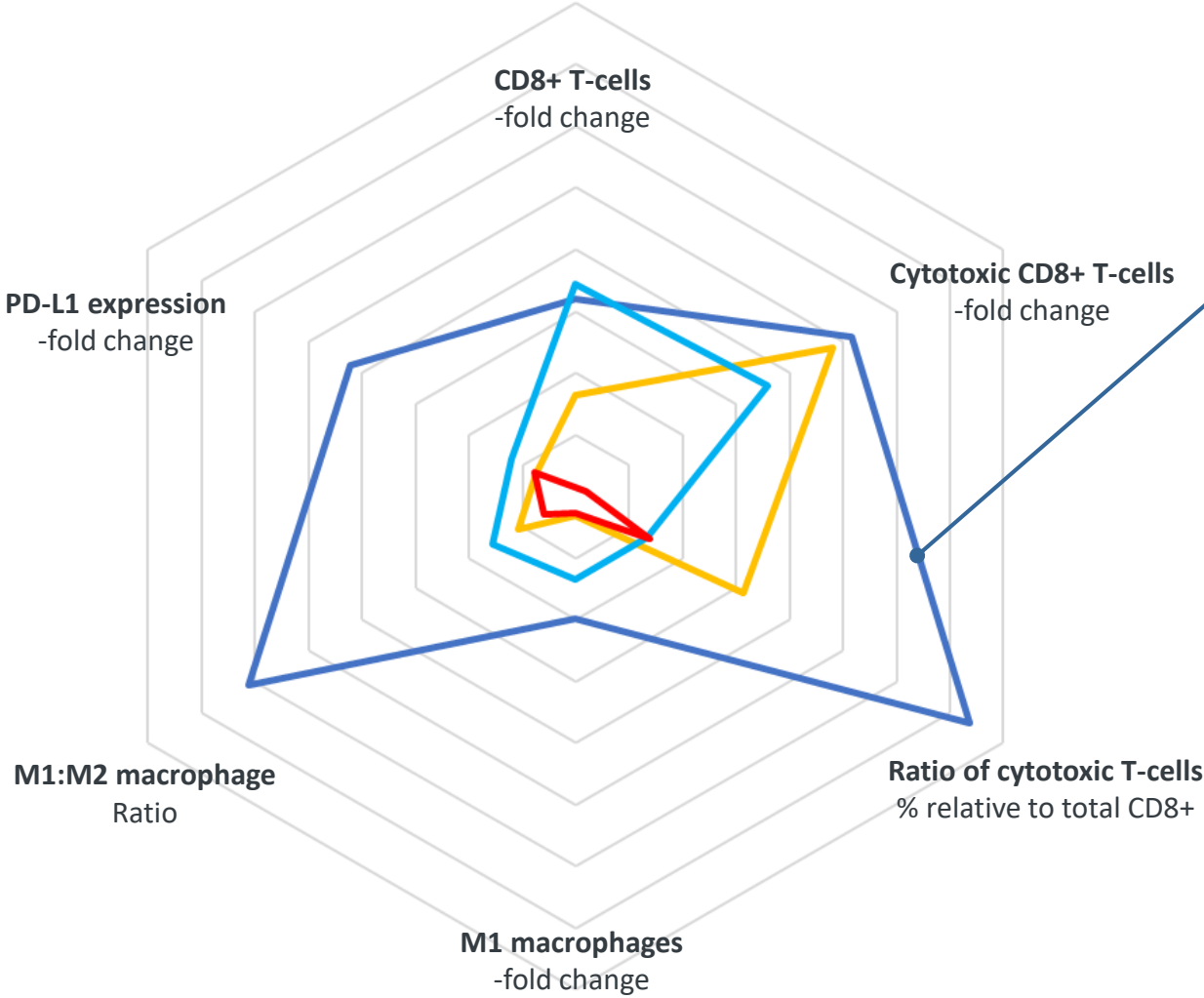
4 Scagliotti 2019 (Lancet) compared nintedanib + pem/cis vs pem/cis; data from pem/cis arm presented on plot

5 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.

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

7 mPFS may change: Experimental group 11 patients (3 censored)

ONCOS-102 DRIVES BROAD & POWERFUL IMMUNE ACTIVATION ASSOCIATED WITH CLINICAL OUTCOME



Key Findings

- **Powerful immune activation vs control** across all 6 parameters analysed in mesothelioma
- Immune activation pattern suggests **ONCOS-102 induces sensitivity to CPI treatment**

- ONCOS-102 treated - Alive
- ONCOS-102 treated - Deceased
- Control - Alive
- Control - Deceased



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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 PART 1

33% ORR & ROBUST IMMUNE ACTIVATION

Patient population

- Advanced, unresectable **melanoma**
- Disease **progression** despite prior treatment with anti-PD1
- Poor prognosis, with **few treatment alternatives**
- Part 1: 9 patients. Part 2: 12 patients (fully recruited)

Treatment regime

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

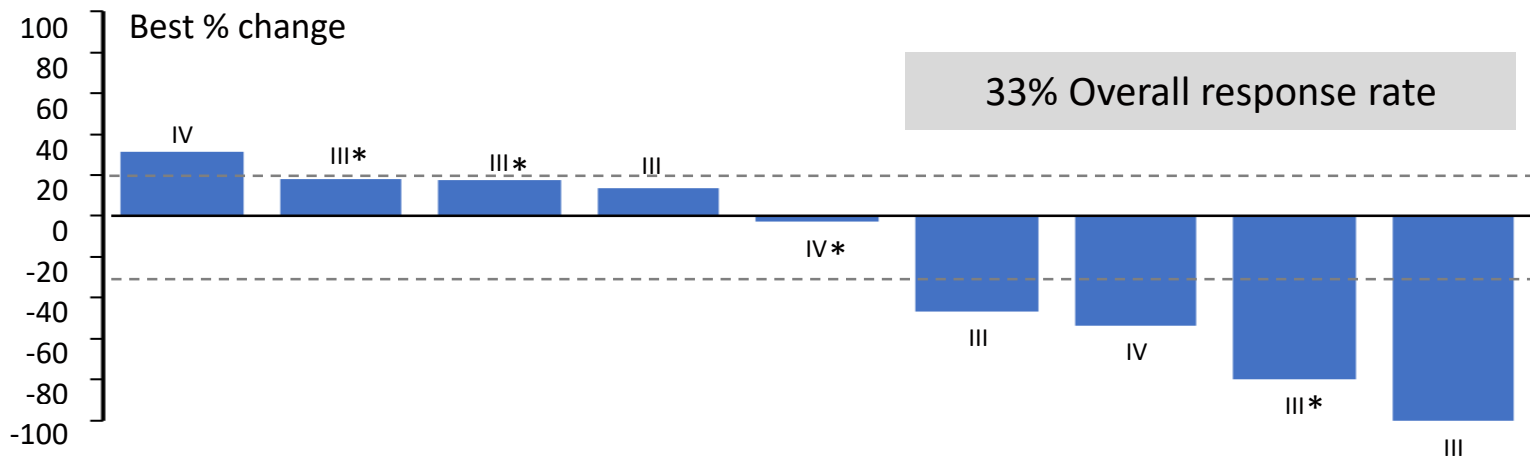
Clinical findings

- Well tolerated, no safety concerns
- **33% ORR** by RECIST 1.1 and irRECIST
 - 1 complete response (CR)
 - 2 partial responses (PR)
- Robust systemic and local **immune activation**

ONCOS-102 + KEYTRUDA IN ANTI-PD1 REFRACTORY MELANOMA

PROMISING OUTCOME IN FIRST NINE PATIENTS

Tumor size change in target lesions



Case example:
Early and durable complete response (CR)

Stage IIIb, prior therapies

- Surgery
- Yervoy
- Dabrafenib + Trametinib
- Keytruda



Baseline: Progression on Keytruda



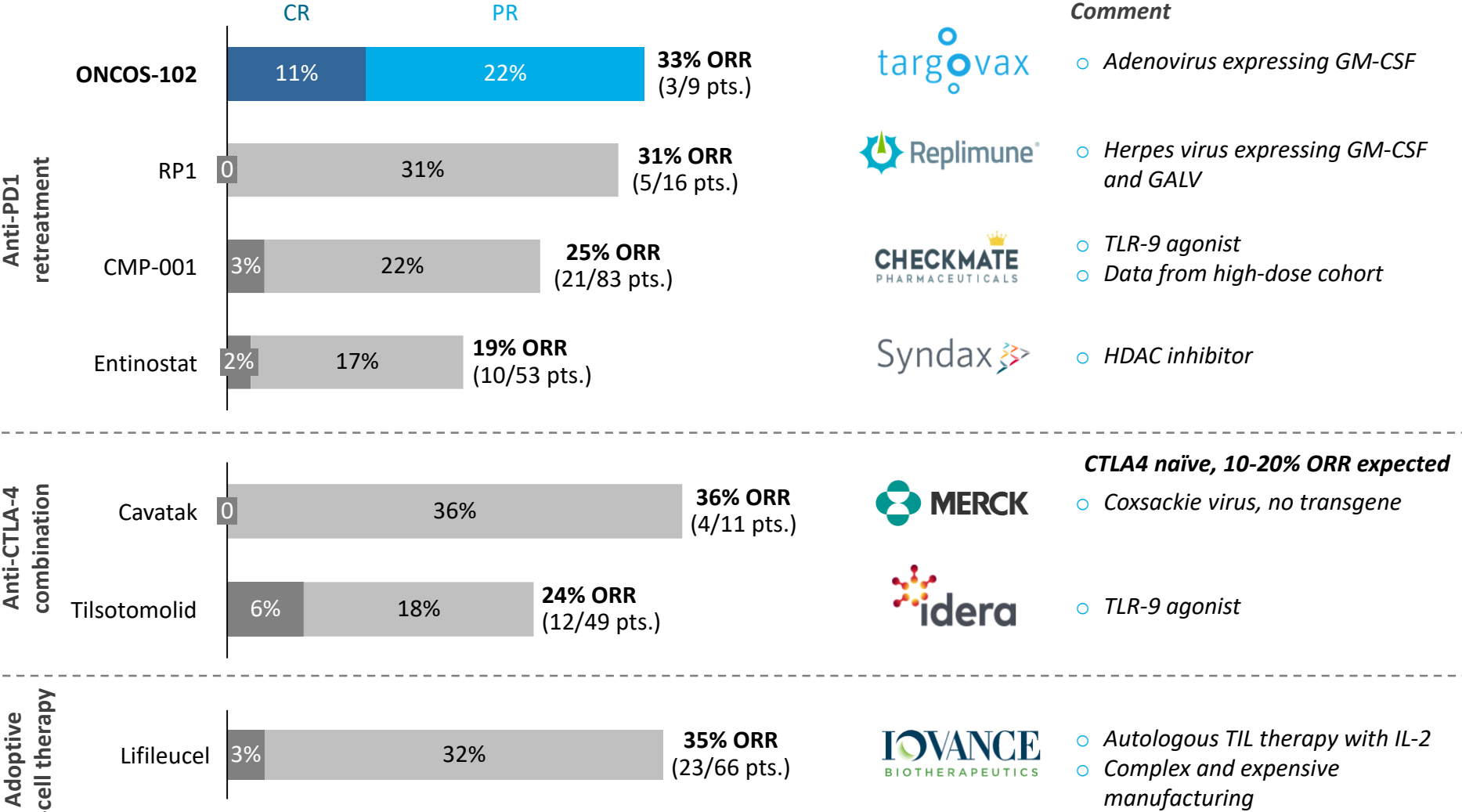
Week 3: 3x ONCOS-102 only



Week 9: 3x ONCOS-102 and 2x Keytruda

* Non-target progression / new lesion (PD)
Letters and numbers indicating disease stage
Preliminary data

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



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	Mesothelioma Combination w/ pemetrexed/cisplatin				
	Melanoma Combination w/Keytruda				
ONCOS-102	Colorectal Combination w/Imfinzi				
	Prostate Combination w/DCvac				
ONCOS-200 series	Next Gen viruses				
Novel mutRAS concepts					

STRONG COLLABORATION IN COLORECTAL CANCER PHASE I/II TRIAL COMBINING ONCOS-102 & IMFINZI

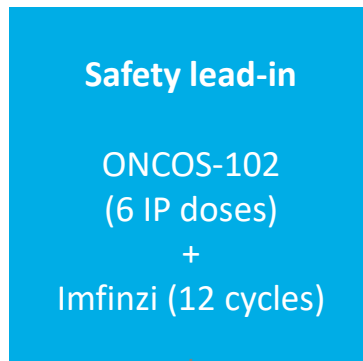
Collaboration



Patient population

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

Dose escalation



Expansion

*DCR met in
1 of 13*

*Simon's
two-stage
design*



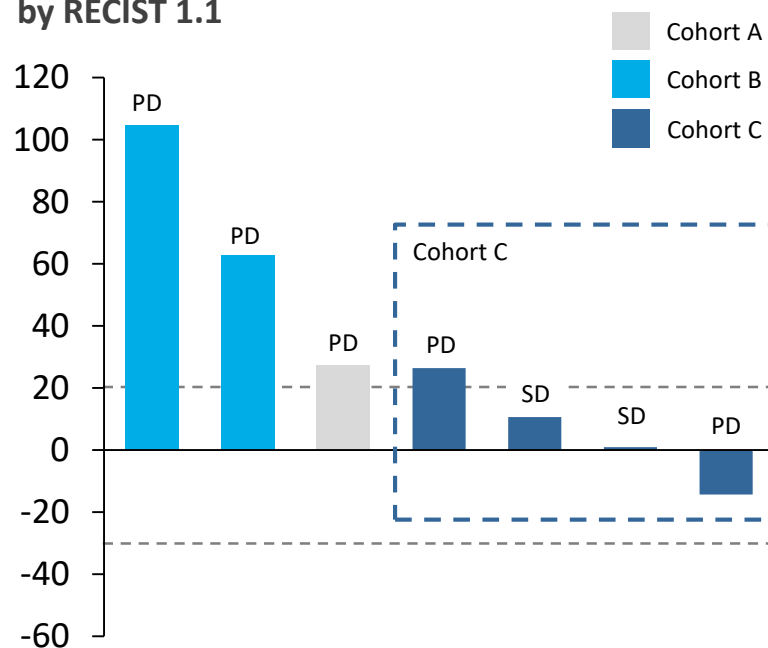
ASCO 2020: Dose Escalation part presented showing clinical activity as well as immune activation, and acceptable safety profile with no DLTs observed

SIGNS OF EFFICACY AND DOSE RESPONSE IN SAFETY LEAD-IN

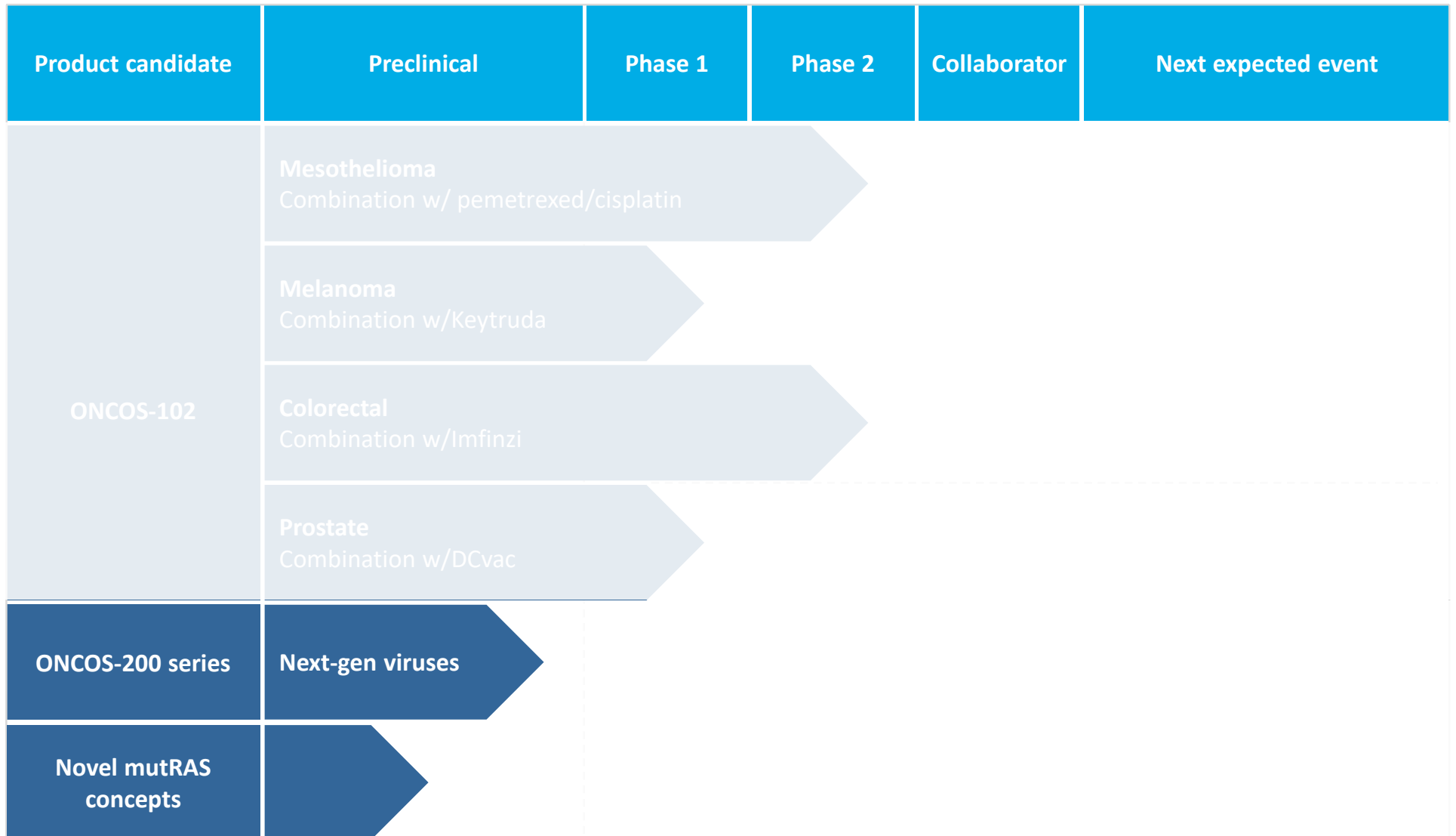
Dosing cohorts	Disease control (best response)
A: Low-dose ONCOS-102 then Imfinzi	0 of 2
B: Low-dose ONCOS-102 + Imfinzi	0 of 2
C: Standard dose ONCOS-102 + Imfinzi	2 of 5

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.



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



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

530 / 55

NOK million

USD million

Analyst coverage

DNB, H.C. Wainwright, Edison

The shareholders¹

Shareholder

Estimated ownership

	<i>Shares m</i>	<i>Relative</i>
HealthCap	12.4	14.3 %
RadForsk	4.4	5.1 %
Nordea	4.3	4.9 %
AP-4	4.0	4.6 %
Thorendahl Invest	1.7	1.9 %
Bækkelaget Holding	1.5	1.8 %
Morgan Stanley & Co. Int.	1.4	1.6 %
State Street Bank (nom.)	1.4	1.6 %
Danske Bank (nom.)	1.3	1.5 %
MP Pensjon	1.2	1.4 %
Top 10	33.5	38.8 %
<i>Other shareholders (5469)</i>	<i>53.0</i>	<i>61.2 %</i>
Total	86.5	100.0 %

TRACK RECORD OF STRONG EXECUTION WITH MULTIPLE UPCOMING VALUE INFLECTION POINTS

