



# ACTIVATING THE PATIENT'S IMMUNE SYSTEM TO FIGHT CANCER

ABGSC Life Science Summit

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targovax

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# THE IMMUNO-ONCOLOGY REVOLUTION

- > **500,000** patients treated per year
- > **3,000** ongoing clinical trials
- > **40%** of US cancer patients eligible
- > **10** approved products





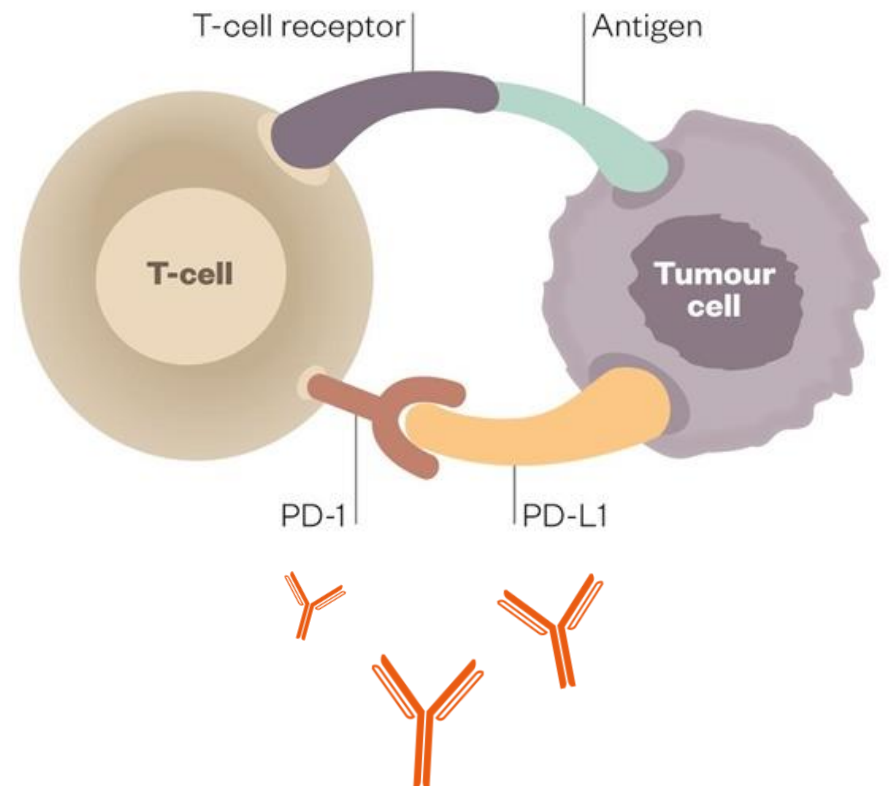
# FIRST GENERATION IMMUNO-ONCOLOGY: CHECKPOINT INHIBITORS

**Cornerstone** of current  
cancer treatment

**Deep and durable** responses

**\$25b** annual sales globally

**7 products** approved to date,  
many more in development



# THE CHALLENGE:

## MAKE PD1 CHECKPOINT INHIBITORS WORK FOR MORE PATIENTS

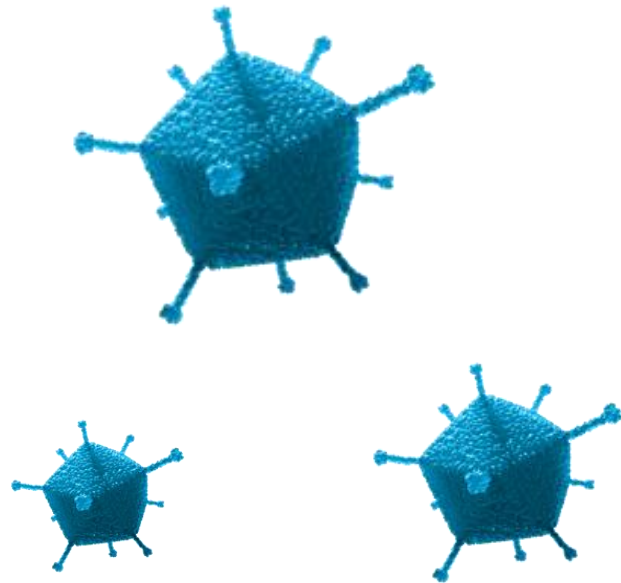


**0-40%** of treated patients respond

**>50%** of responding patients relapse

**1** PD1 checkpoint inhibitor monotherapy not sufficient

# THE SOLUTION: ONCOS-102 IMMUNE ACTIVATION

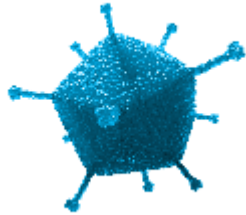


**Unblinds** the tumor to the immune system

**Activates** the body's own T-cells against the cancer

**Reverses** immunosuppressive defense mechanisms in the tumor

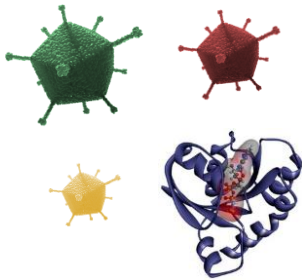
# TARGOVAX AT A GLANCE



**ONCOS-102**

## Lead product candidate

- Class-leading data in monotherapy and combinations with chemo and aPD1
- Powerful immune activation
- Ideal combination partner to aPD1
- Path to market



## Pipeline

- Novel virus approaches
- Novel payloads and modes of action
- Mutant RAS cancer vaccine concepts

## Vision:

*Unlock greater clinical benefits in cancer patients by deploying multifunctional platforms to target key immune regulators and oncogenic drivers*

# CLINICAL AND PRECLINICAL PIPELINE

Product candidate	Preclinical	Phase 1	Phase 2	Collaborator
ONCOS-102	Melanoma Combination w/Keytruda			
	Colorectal cancer Combination w/Imfinzi			AstraZeneca CANCER RESEARCH INSTITUTE
	Mesothelioma Combination w/pemetrexed/cisplatin			MERCK
Next Gen viruses				leidos Papyrus
Novel mutRAS concepts				VALO THERAPEUTICS OBLIQUE THERAPEUTICS



# EARLY-STAGE DEVELOPMENT SUCCESSFULLY COMPLETED – ENTERING LATE-STAGE DEVELOPMENT

## Early-stage development

- ✓ Clinical efficacy
- ✓ Immune activation
- ✓ Well tolerated

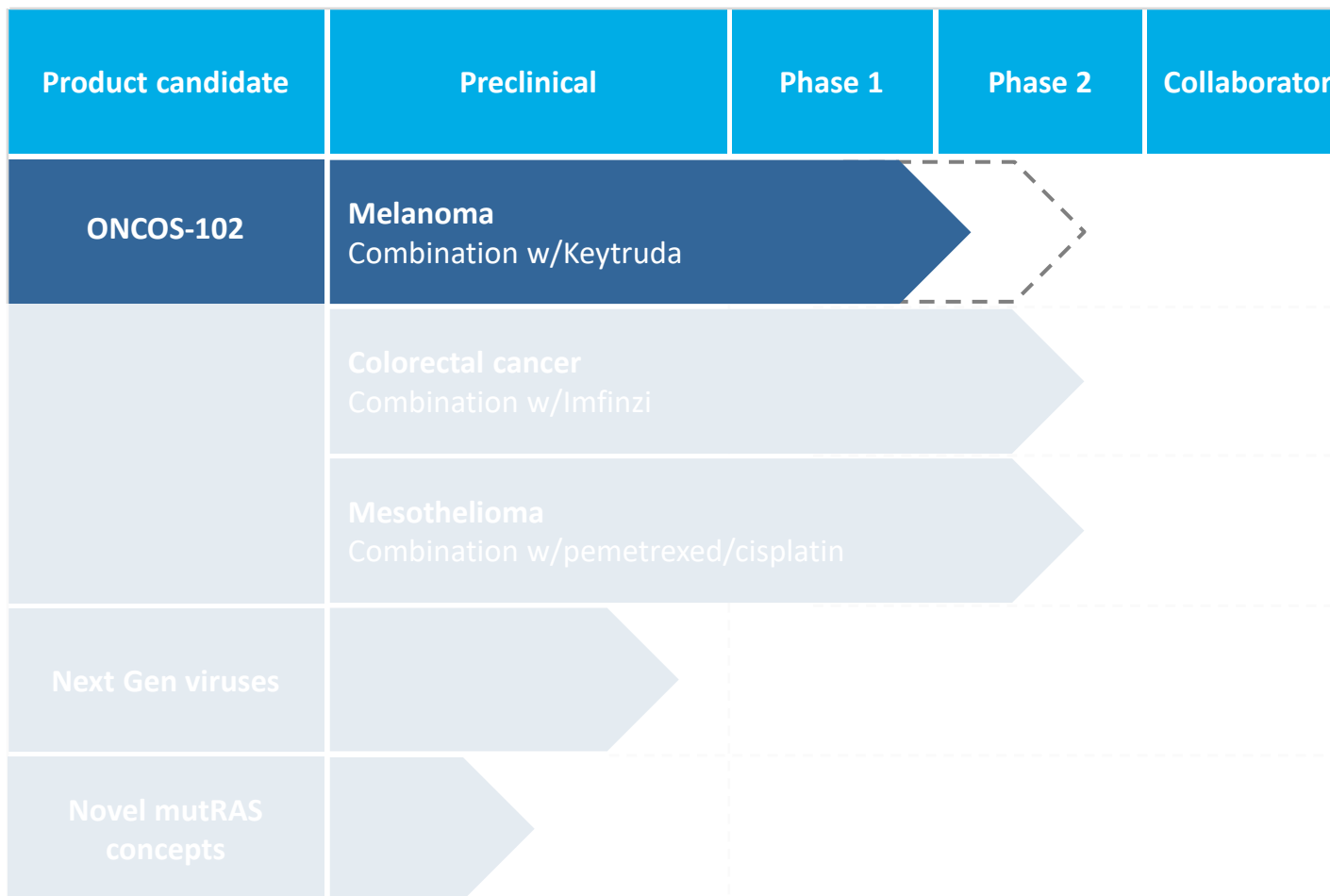
## Late-stage development

PD1 refractory melanoma



## Expansion opportunities

- Mesothelioma
- Colorectal cancer
- Other indications
- Other IO combinations
- Platform development



# 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

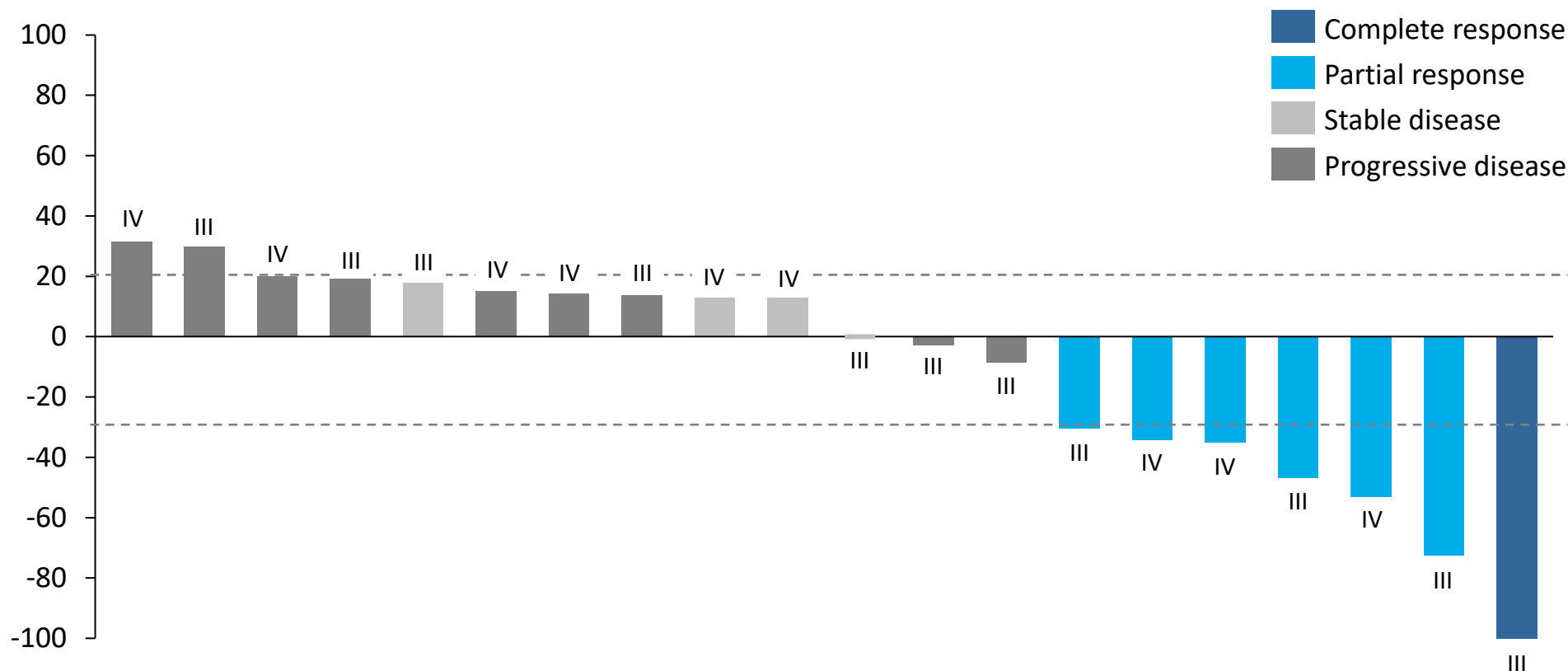
- **Part 1: 3 ONCOS-102 injections** followed by 5 months of Keytruda
- **Part 2: 12 ONCOS-102 injections** - priming and concomitantly

### Clinical data

- **35% ORR** by RECIST 1.1 and irRECIST
  - 1 Complete Response (CR) (Part 1)
  - 6 Partial Responses (PR) (2 in Part 1, 4 in Part 2)
- Multiple examples of **systemic effect**
- Robust systemic and local **immune activation**
- Well tolerated, no safety concerns

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

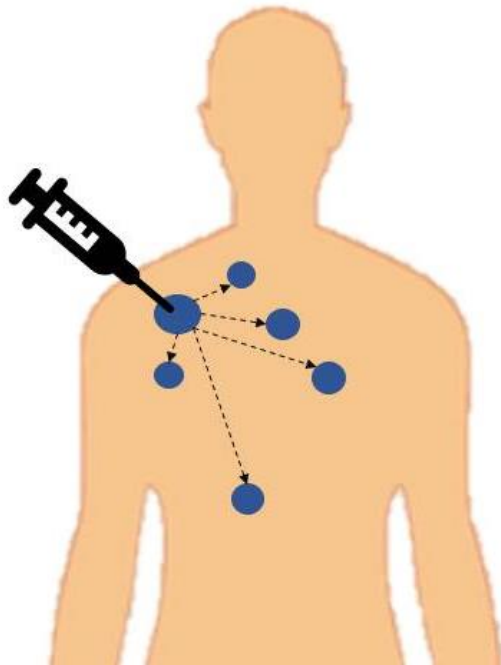
Relative change (percent) in tumor burden from baseline to best response



Stage at enrollment  
Response evaluated by RECIST 1.1 in at least one CT scan

# MULTIPLE EXAMPLES OF SYSTEMIC (ABSCOPAL) EFFECT

TWO PATIENTS WHERE A NON-INJECTED LESION COMPLETELY DISAPPEARED



## **Conservative definition of abscopal effect per lesion:**

- $\geq 30\%$  tumor reduction from baseline
- $\geq 5\text{mm}$  absolute reduction

## **Abscopal effect observed in 4 / 20 patients (20%)**

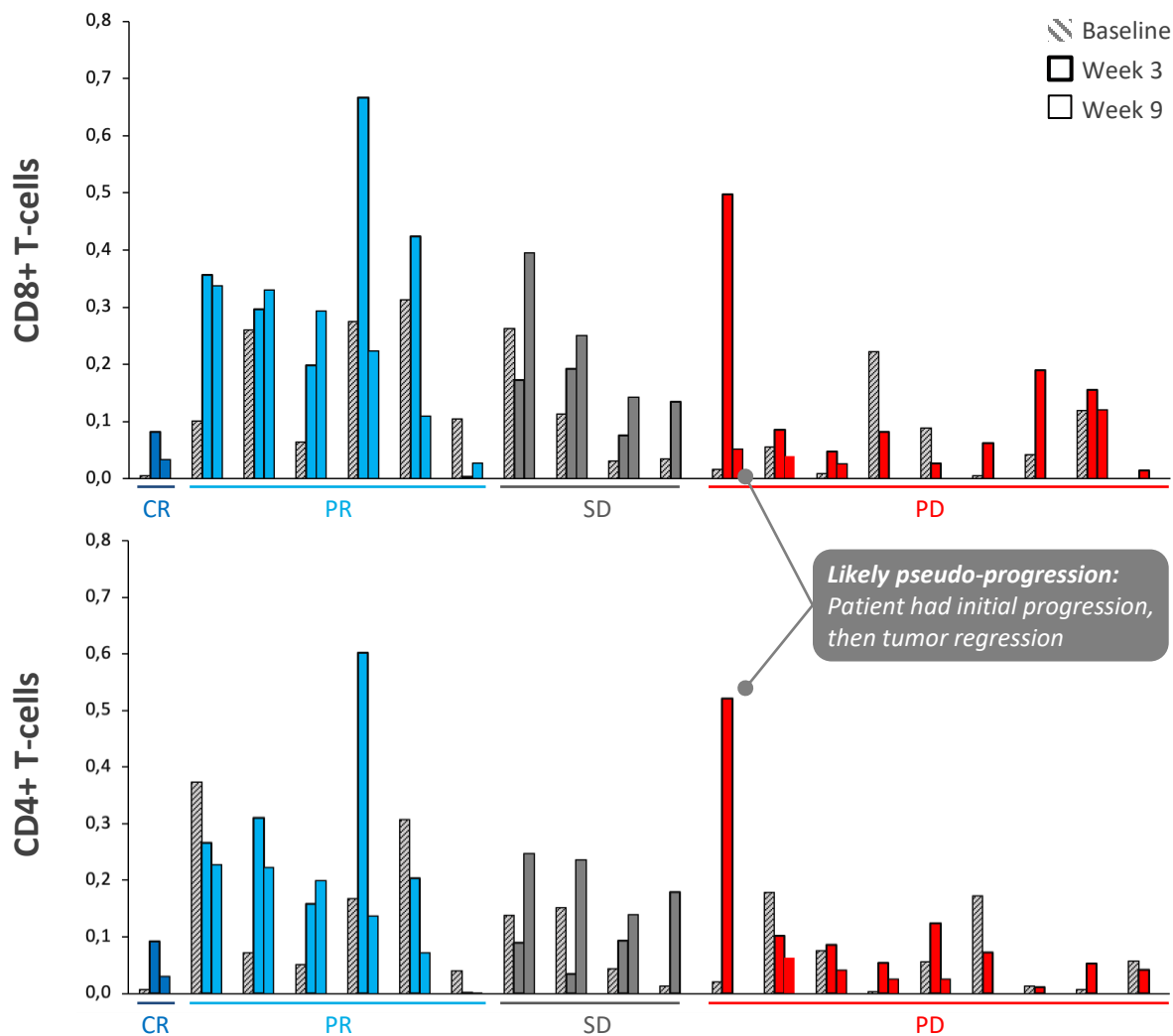
- 1 / 8 patients in Part 1 (12.5%)
- 3 / 12 patients in Part 2 (25%)

**Complete regression (100%) of a non-injected lesion observed in two patients**

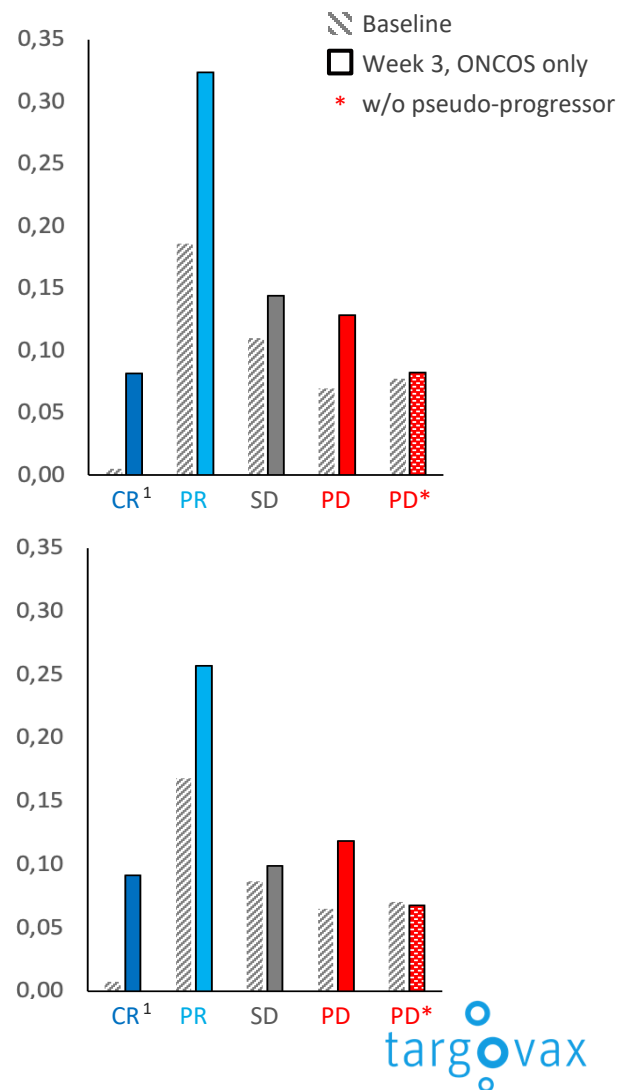


# CLINICAL EFFECT SUPPORTED BY IMMUNE DATA

T-cell infiltrate (TIL) for individual patients; tumor mIHC, relative level

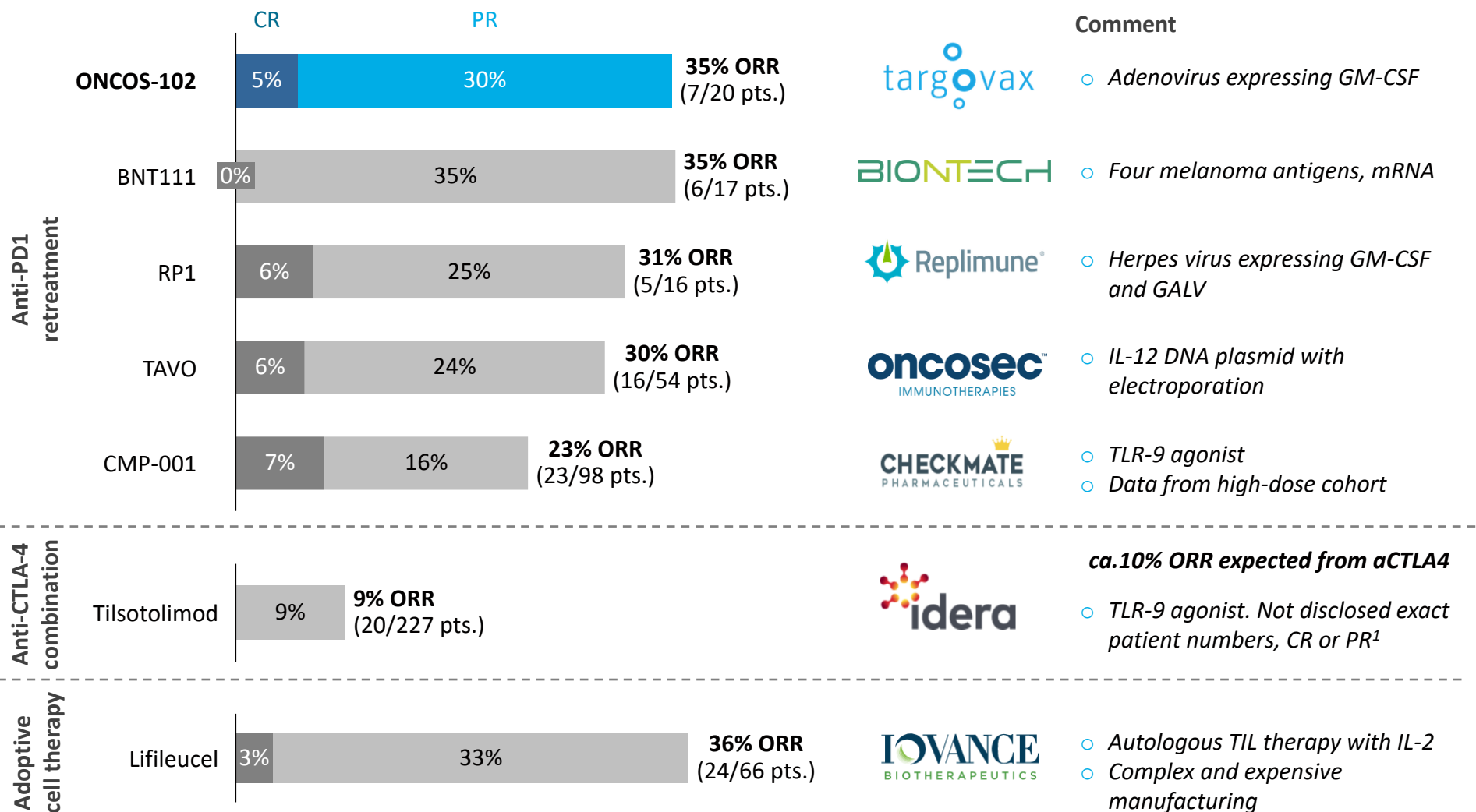


Average T-cell level per group



1: One CR patient only

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



# TARGETING ACCELERATED APPROVAL IN PD1 REFRACTORY MELANOMA

## Rationale

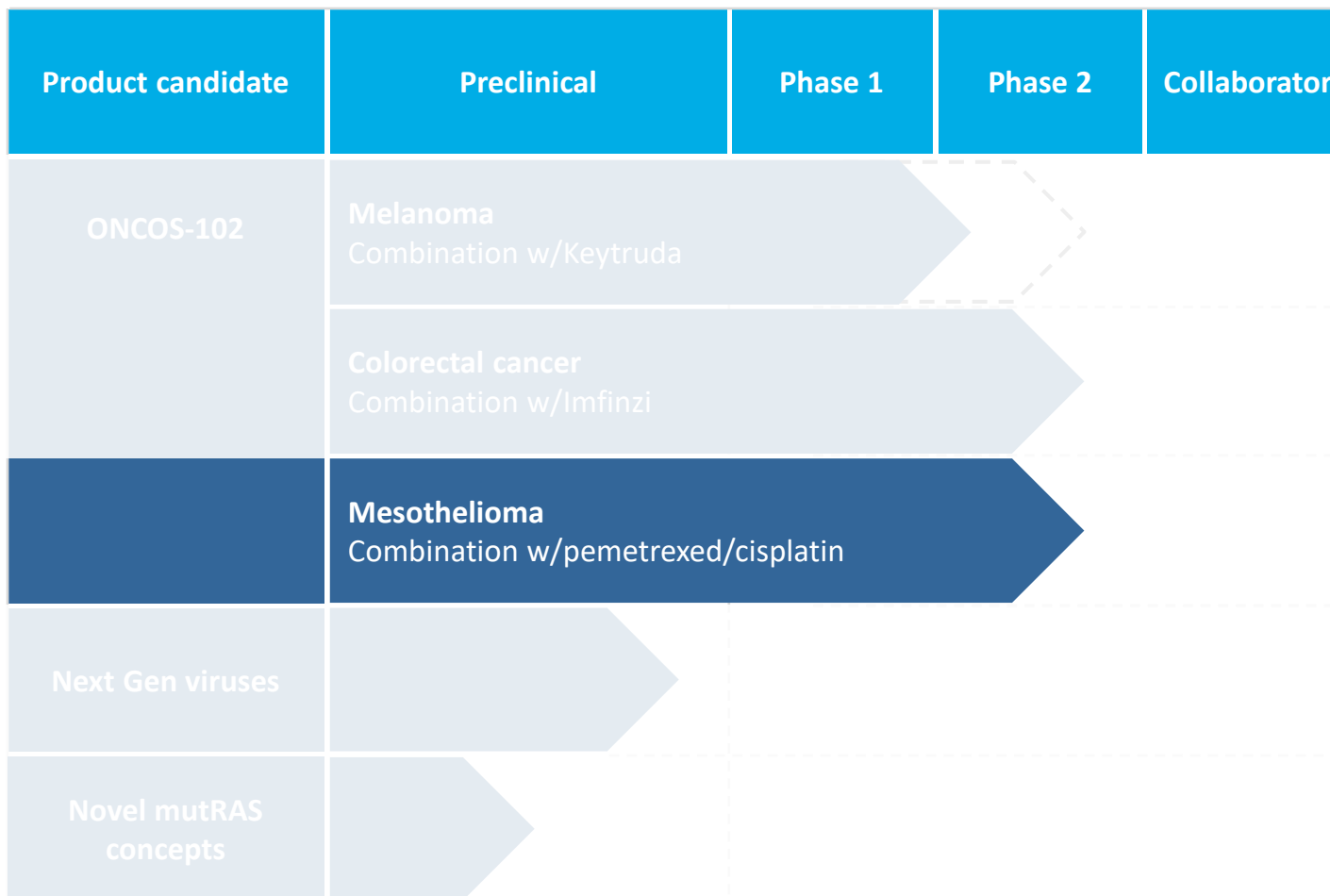
- Highly **competitive clinical data**
- **No standard of care**
- **Fast route to market**
- **KOL endorsement**

## Study design – current thinking

- **ONCOS-102 + aPD1**
- **Single arm, ca. 100 patients**
- **Primary endpoint: ORR**
- Additional focus: **systemic effect and durability**

## Next steps

- Finalize **study design** and enrolment criteria
- **Scientific advice** with the FDA
- **Select** anti-PD1 collaboration partner
- Start enrollment 1H 2022



# HIGH NEED FOR NEW TREATMENT APPROACHES

## IN MALIGNANT PLEURAL MESOTHELIOMA



### Surgery

**Only 10% of patients suitable for resection**

Often diagnosed too late for surgery

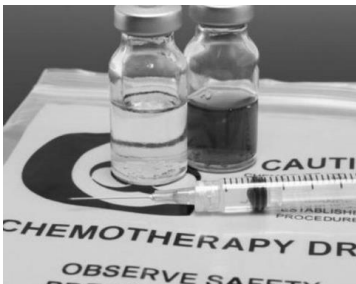
Technically challenging

### 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

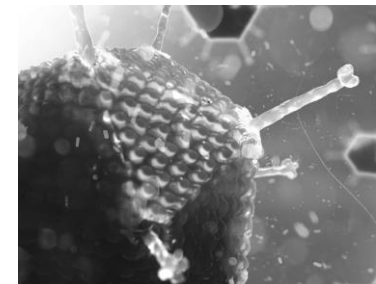
6 months mPFS and 12 months mOS in 1<sup>st</sup> line

### Immunotherapy

**Ipi/nivo approved in 1<sup>st</sup> line disease (US only)**

CPIs included in NCCN guidelines as 2<sup>nd</sup> line option

CPI + SoC trials ongoing





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

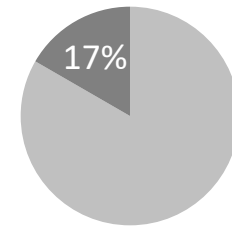
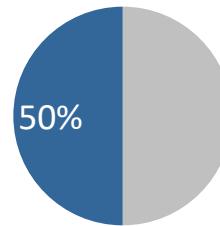
## ENCOURAGING CLINICAL OUTCOMES IN 1<sup>ST</sup> LINE

### Trial design

- 1<sup>st</sup> and 2<sup>nd</sup> (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 <sup>st</sup> line	3	8	6
2 <sup>nd</sup> line <sup>1</sup>	3	6	5

### Alive after 21 months



### Median OS, months

≥ 20.5

mOS not  
yet reached

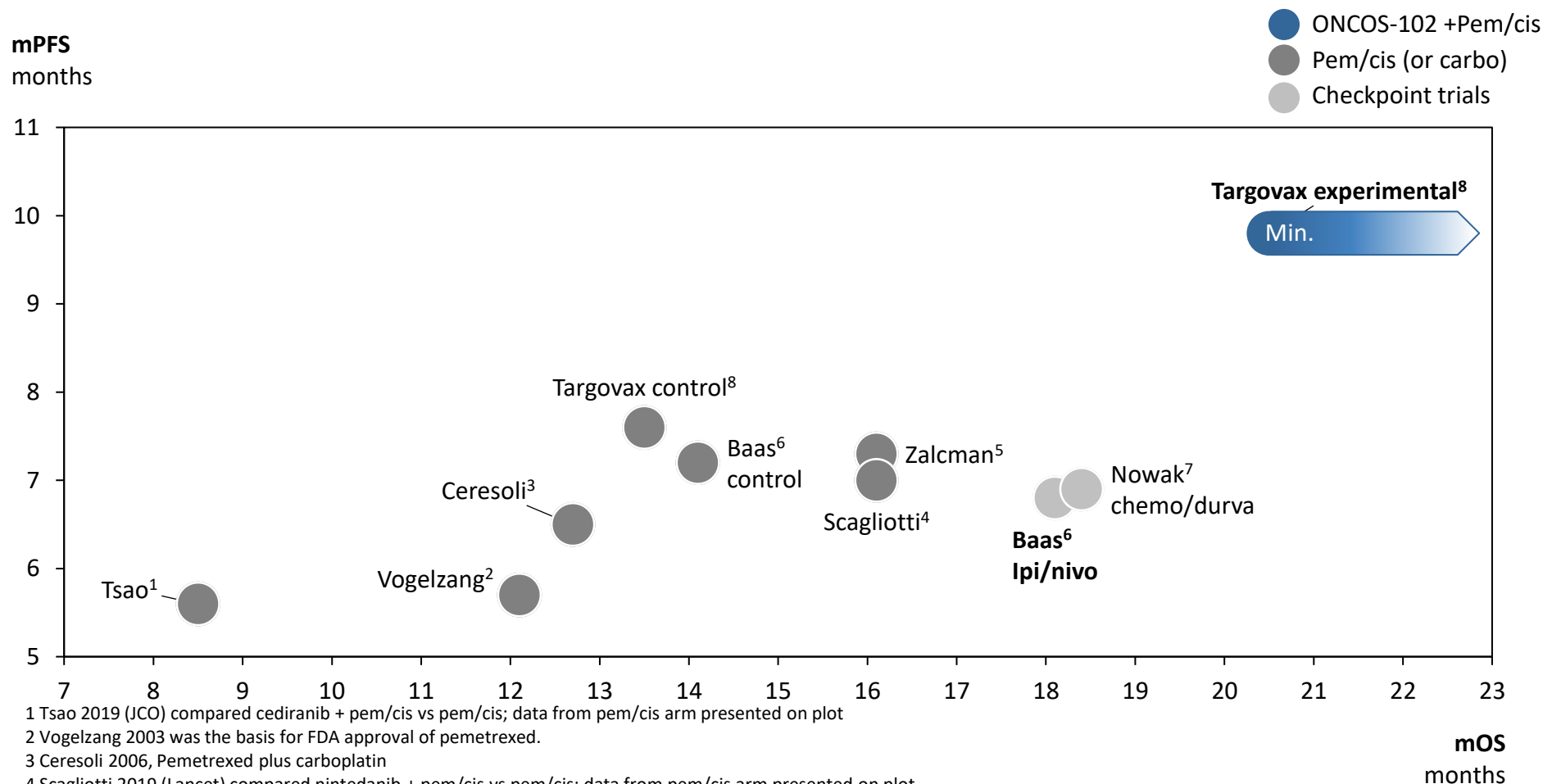
13.5

<sup>1</sup> Also including later lines

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

mPFS when combining safety lead-in and randomized part in first line is 8.9 months

# FIRST LINE DATA ARE MATURING AND ALREADY COMPETITIVE - MOS WILL BE 20.5 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

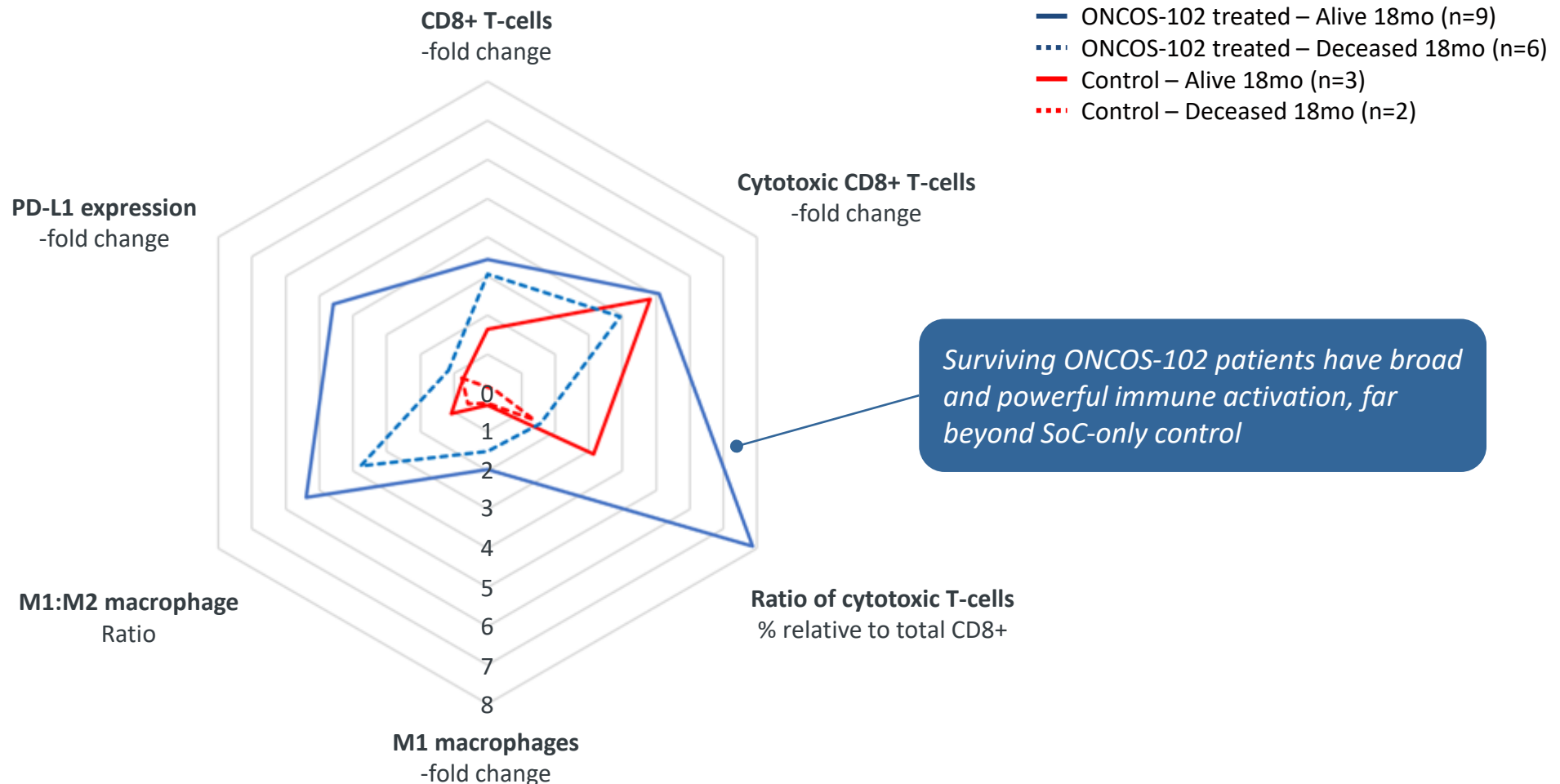
5 Zalcman 2016 (Lancet) compared bevacizumab + pem/cis vs pem/cis; data from pem/cis arm presented on plot.

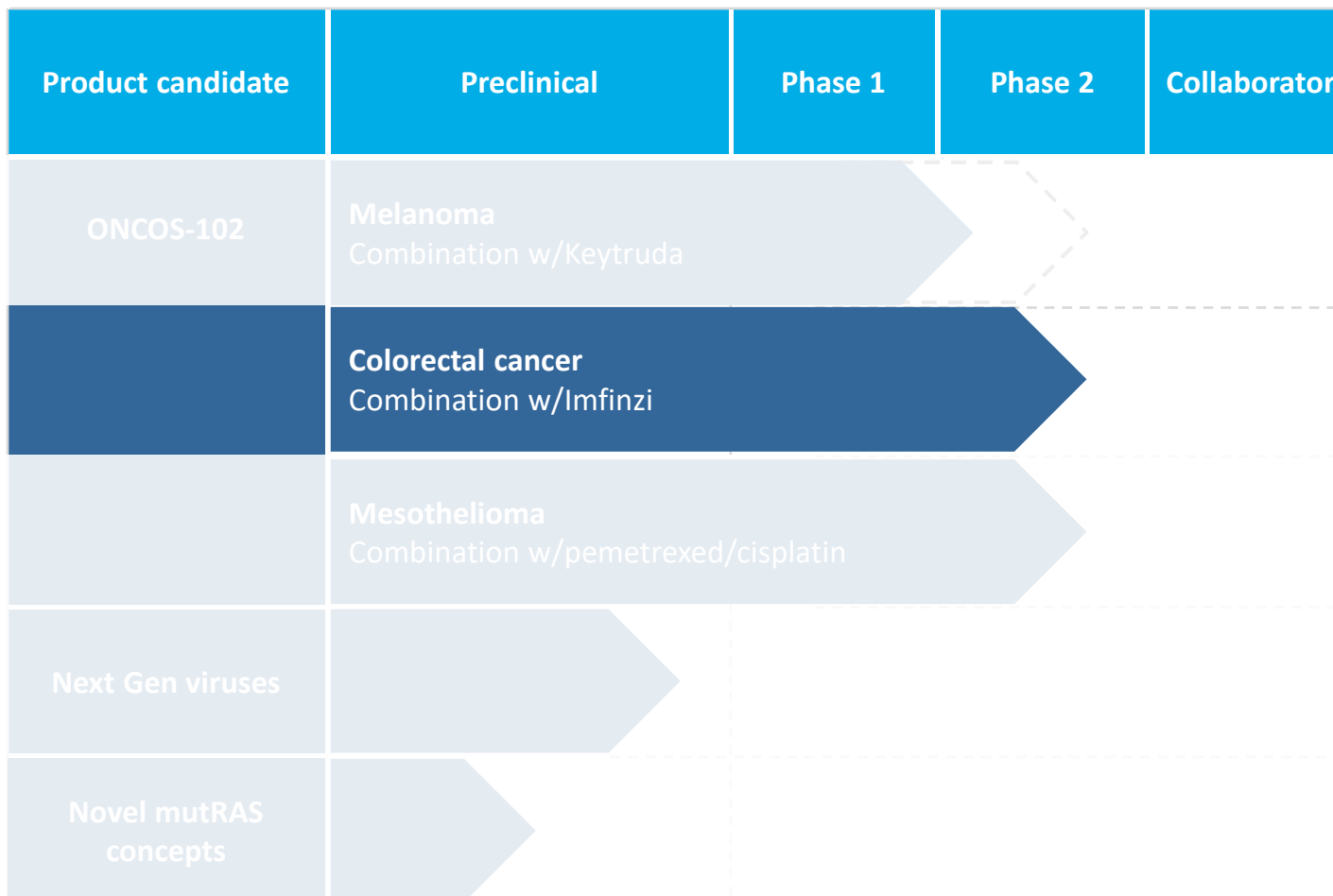
6 Baas 2020 CheckMate 743. Nivolumab + ipilimumab for two years vs pem/cis (or carboplatin). Ipi/nivo was approved in first line by FDA on October 2, 2020.

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

8 1:1 randomized patients mOS will change: Experimental group, 8 patients (4 censored). Control group, 6 patients (1 censored)

# ONCOS-102 INDUCED BROAD IMMUNE ACTIVATION IN MESOTHELIOMA, ASSOCIATED WITH SURVIVAL OUTCOME





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

## Collaborators



CANCER  
RESEARCH  
INSTITUTE

LUDWIG  
CANCER  
RESEARCH

AstraZeneca 

## Patient population

- Primary colorectal cancer with peritoneal metastases
- Failed prior standard-of-care platinum chemotherapy

## Treatment regime

- 6 ONCOS-102 intraperitoneally infusion (once per week)
- 12 cycles of Imfinzi (starting on day 15)

## Status

- *Safety lead-in data presented at ASCO 2020*
- *Clinical data and immune data expected 1H22*



# FINANCIAL SNAPSHOT

## The company

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Cash at end of 1Q

**95 / 11**  
NOK million      USD million

Net cash flow - total 1Q

**-27 / -3.2**  
NOK million      USD million

Market cap

**650 / 80**  
NOK million      USD million

## The share

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Daily value traded

Average last 12 months

**3.4 / 0.4**  
NOK million      USD million

**~150%** of shares traded last 12 months

Analyst coverage

**DNB, Carnegie, H.C. Wainwright**

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