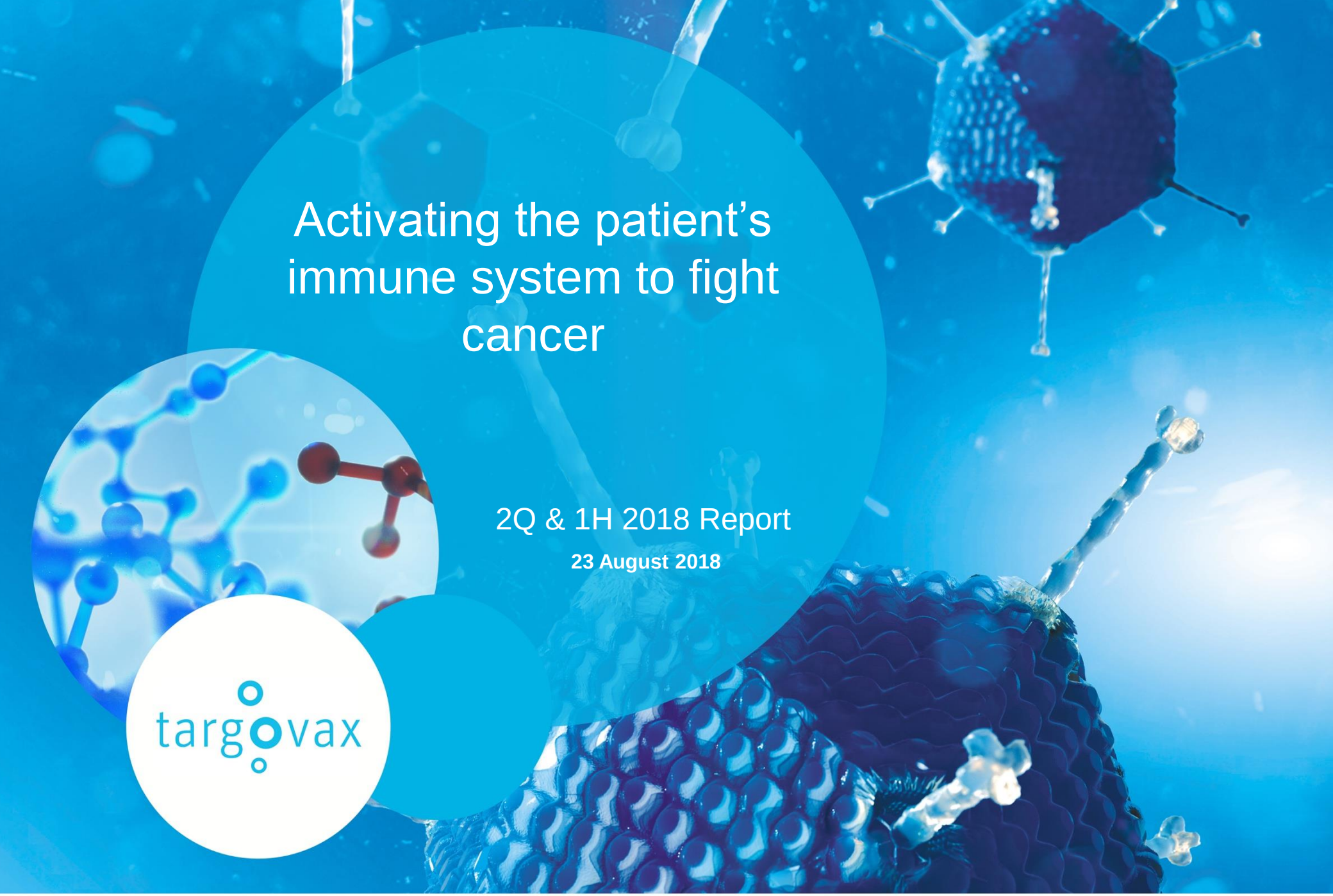

Activating the patient's immune system to fight cancer

2Q & 1H 2018 Report

23 August 2018

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Important
NOTICE AND DISCLAIMER

This report contains certain forward-looking statements based on uncertainty, since they relate to events and depend on circumstances that will occur in future and which, by their nature, will have an impact on the results of operations and the financial condition of Targovax. Such forward-looking statements reflect the current views of Targovax and are based on the information currently available to the company. Targovax cannot give any assurance as to the correctness of such statements.

There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in these forward-looking statements. These factors include, among other things, risks or uncertainties associated with the success of future clinical trials; risks relating to personal injury or death in connection with clinical trials or following commercialization of the company's products, and liability in connection therewith; risks relating to the company's freedom to operate (competitors patents) in respect of the products it develops; risks of non-approval of patents not yet granted and the company's ability to adequately protect its intellectual property and know-how; risks relating to obtaining regulatory approval and other regulatory risks relating to the development and future commercialization of the company's products; risks that research and development will not yield new products that achieve commercial success; risks relating to the company's ability to successfully commercialize and gain market acceptance for Targovax's products; risks relating to the future development of the pricing environment and/or regulations for pharmaceutical products; risks relating to the company's ability to secure additional financing in the future, which may not be available on favorable terms or at all; risks relating to currency fluctuations; risks associated with technological development, growth management, general economic and business conditions; risks relating to the company's ability to retain key personnel; and risks relating to the impact of competition.

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1

Status & Highlights

2. ONCOS oncolytic virus program update
3. 2Q & 1H 2018 Financials

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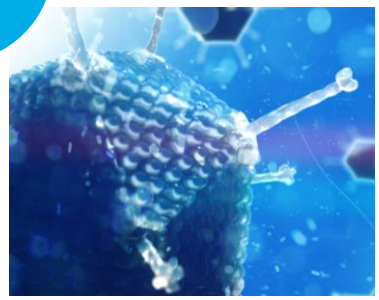
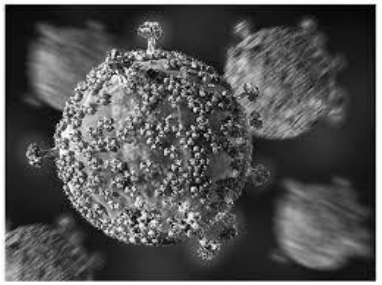
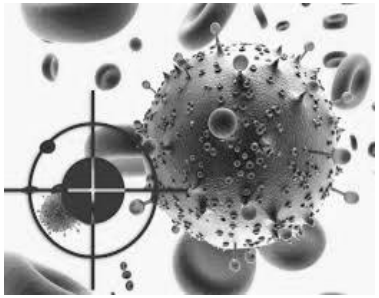
TARGOVAX AIM IS TO ACTIVATE THE PATIENT'S OWN IMMUNE SYSTEM TO FIGHT CANCER

Targovax focus







Immune activators
Oncolytic viruses, vaccines

Immune modulators
Checkpoint inhibitors

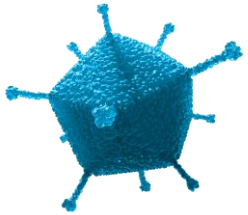
Surgery - Radio - Chemo

Immune boosters
CAR-Ts, TCRs

Targeted therapy
PARPs, gene therapy, etc.

Targovax has two programs in clinical development, with an

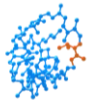
ONCOLYTIC VIRUS LEAD PRODUCT CANDIDATE



ONCOS
Oncolytic virus

Lead product candidate

- Genetically **armed adenovirus**
- **Alerts the immune system** to the presence of cancer antigens
- **Induces T-cells** specific to the patients' tumor
- **4 ongoing clinical trials**



TG
Neoantigen vaccine

Pipeline product

- **Shared neoantigen**, therapeutic cancer vaccine
- Triggers the immune system to **recognize mutant RAS cancers**

Activates the immune system

Triggers patient-specific responses

No need for individualization

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ONCOS

CLINICAL PROGRAM OVERVIEW

Compassionate use program
115 patients

Phase I trial
12 patients
7 indications

Mesothelioma
Phase I/II - randomized
30 patients

- Shortest path-to-market
- Orphan drug designation
- Combination with SoC chemo
- Randomized vs. SoC

Melanoma
Phase I
12 patients

- PoC in CPI refractory patients
- Combination with Keytruda®
- Memorial Sloan Kettering

Peritoneal cancer
Phase I/II
up to 78 patients

- Ovarian and colorectal cancers
- Combination with Imfinzi®
- Intraperitoneal administration
- Collaboration with MedImmune / AZ, CRI, & Ludwig

Prostate cancer
Phase I
up to 15 patients

- Combination with dendritic cell vaccine (DCVAC)
- Collaboration with Sotio

Completed trials

Ongoing trials sponsored by Targovax

Ongoing trials sponsored by partner

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1H 2018 HIGHLIGHTS

During period

ONCOS-102 Mesothelioma phase I/II trial:

- Six patient safety lead-in cohort completed without any concerns
- All patients were immune activated
- 50% disease control rate was observed after 6 months

ONCOS-102 Melanoma CPI refractory phase I trial:

- ONCOS-102 generated both innate and adaptive immune activation in all of the first 4 patients treated

TG01 Resected pancreatic cancer phase I/II trial:

- Encouraging 2-year and median overall survival data was reported

Corporate development:

- Strengthened development focus on ONCOS as lead clinical program
- Targovax was granted a product patent in the EU for TG02
- Dr. Catherine Wheeler was elected to the Board of Directors

Post-period

ONCOS-102 Peritoneal cancer phase I/II trial in combination w/ Imfinzi®:

- Safety evaluation of first dose cohort completed without any concerns

ONCOS-102 Prostate cancer phase I trial in combination w/ DCVAC:

- First patient has been dosed

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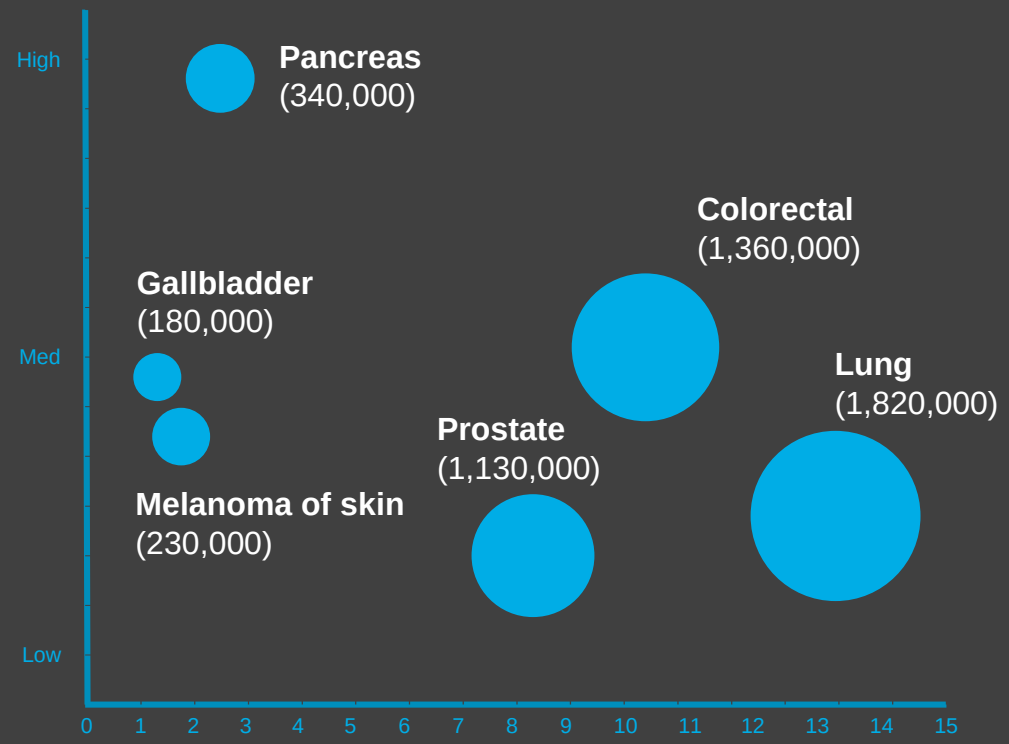
The RAS gene is mutated in

90% OF PANCREATIC AND 50% OF COLORECTAL CANCERS

Frequency of RAS mutations

Global cancer incidents per 10,000
(xx) = no. of cancer patients



- RAS mutations are oncogenic and result in **uncontrolled cell division**
- **There are no existing therapies** targeting RAS mutations
- Targovax' TG program is a **unique vaccine approach for mutant RAS cancer**

Fernandez-Medarde; RAS in Cancer and Developmental Diseases; Genes & Cancer. 2011;2(3)

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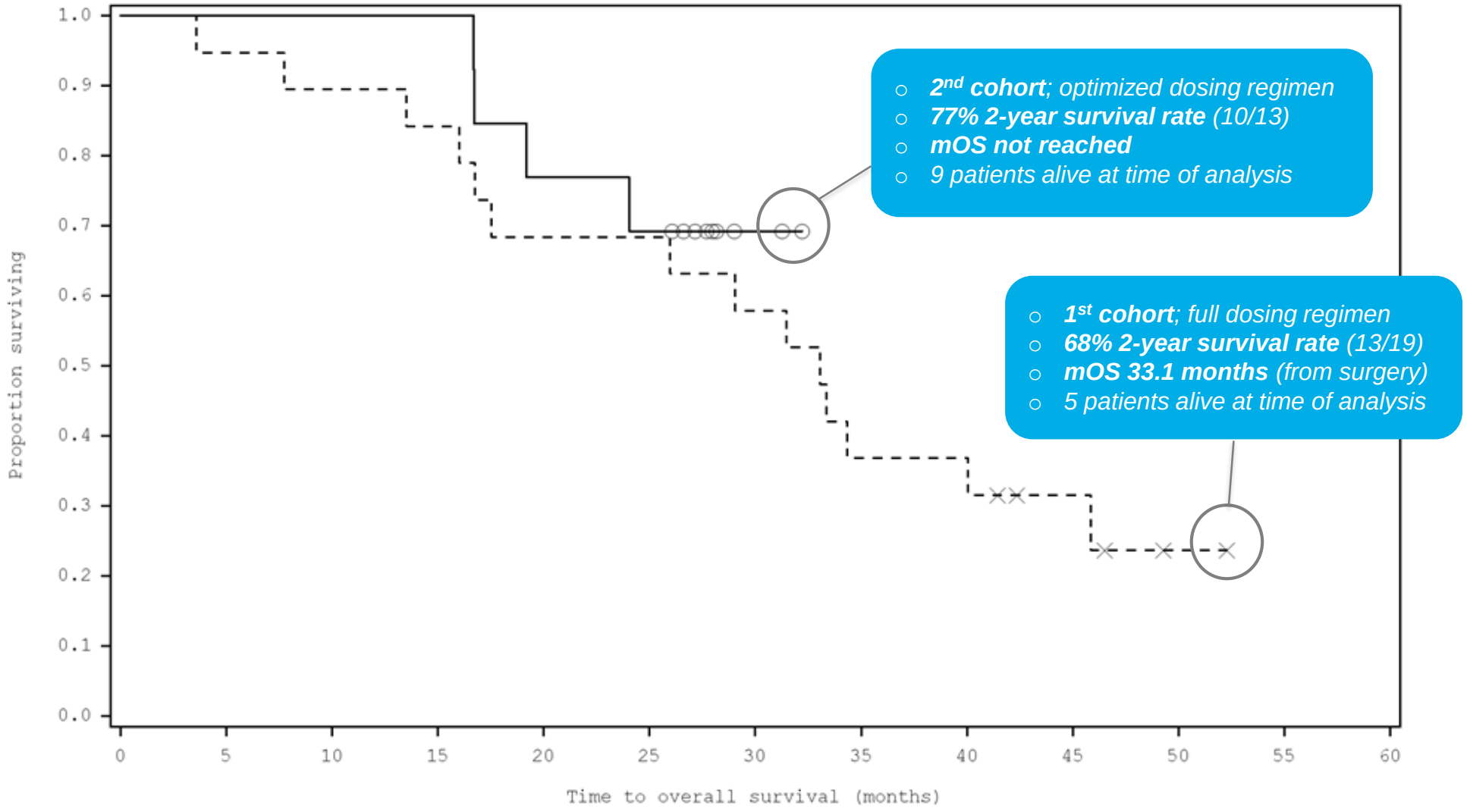
TG01 CURRENT KAPLAN-MAIER SURVIVAL CURVES

First (n=19) and second (n=13) patient cohort



- ***2nd cohort**; optimized dosing regimen*
- ***77% 2-year survival rate** (10/13)*
- ***mOS not reached***
- *9 patients alive at time of analysis*

- ***1st cohort**; full dosing regimen*
- ***68% 2-year survival rate** (13/19)*
- ***mOS 33.1 months** (from surgery)*
- *5 patients alive at time of analysis*

TG01 IN RESECTED PANCREATIC CANCER

SIGNAL OF EFFICACY DEMONSTRATED IN PHASE I/II TRIAL WITH ADJUVANT CHEMOTHERAPY

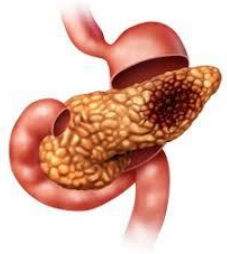
Median overall survival (N=32)	**33.4 vs. 27.6 months** reported in the ESPAC4 trial for gemcitabine alone (preliminary, counting from time of surgery)
2-year survival rate	**23 out of 32 patients alive two years after surgery (72%),** comparing to 30-53% two-year survival with gemcitabine alone
mutRAS immune activation	**30 out of 32 patients (94%)** had **RAS-specific immune activation**
Dosing and safety	**Dosing regimen defined** and TG01 is **well-tolerated** in combination with chemotherapy
PRODIGE trial *Folfirinox now expected new standard of care*	***Phase III trial of adjuvant Folfirinox vs. Gemcitabine*** *(n=493)*[1] ○ ***ASCO 2018 late breaker,*** *Investigator-led academic study* ○ ***Median OS:*** *54.4 vs. 35.0 months*

TG

CLINICAL DEVELOPMENT STRATEGY

1

Resected panc-reatic cancer



TG01 indication

- Ph I/II completed
- Next steps being reassessed
- ~40 000 incidents

2

Colorectal cancer

TG02 lead indication

- Ph I trial ongoing
- 50% mutRAS
- ~0.5m incidents

3

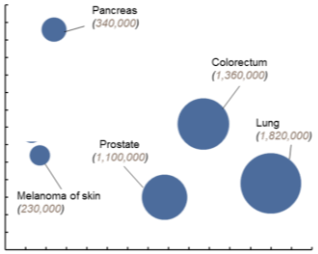
Lung cancer (NSCLC)

TG02 potential future indication

- 30% mutRAS
- ~0.5m incidents

4

All mutRAS cancers



TG02 + TG03 long-term potential

- Up to 30% of all cancer patients

Source: Global data, Riva et al. Plos One 2017 Estimated total addressable patient number with RAS mutations in US, EU and China

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2

ONCOS oncolytic virus program update

3. 2Q & 1H 2018 Financials

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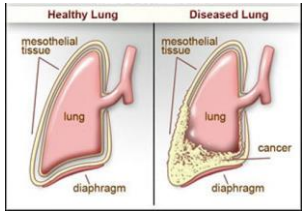
ONCOS

CLINICAL DEVELOPMENT STRATEGY

1

Path-to-market
Mesothelioma

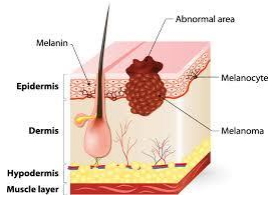


Target launch indication

- Orphan drug status
- Aim to become addition to SoC
- Ongoing phase I/II
- 15,000 patients per year

2

Proof-of-concept
CPI refractory

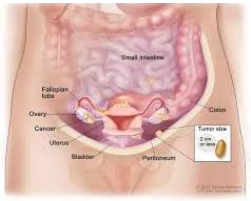


Indications with no/ limited effect of CPIs

- Ongoing melanoma phase I
- Combo w/PD-1
- >100,000 patients per year

3

Proof-of-concept
New CPI indication

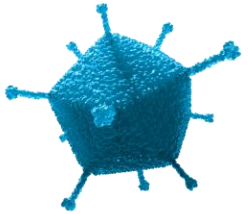


Peritoneal malignancies

- Ongoing phase I/II in ovarian and colorectal
- Combo w/PD-L1
- >100,000 patients per year

4

Next generation
oncolytic viruses



Double transgene adenoviruses

- Novel targets
- Ongoing *in vivo* testing
- Broad spectrum of solid tumors

SOURCE: Global Data, EU big 5 + US

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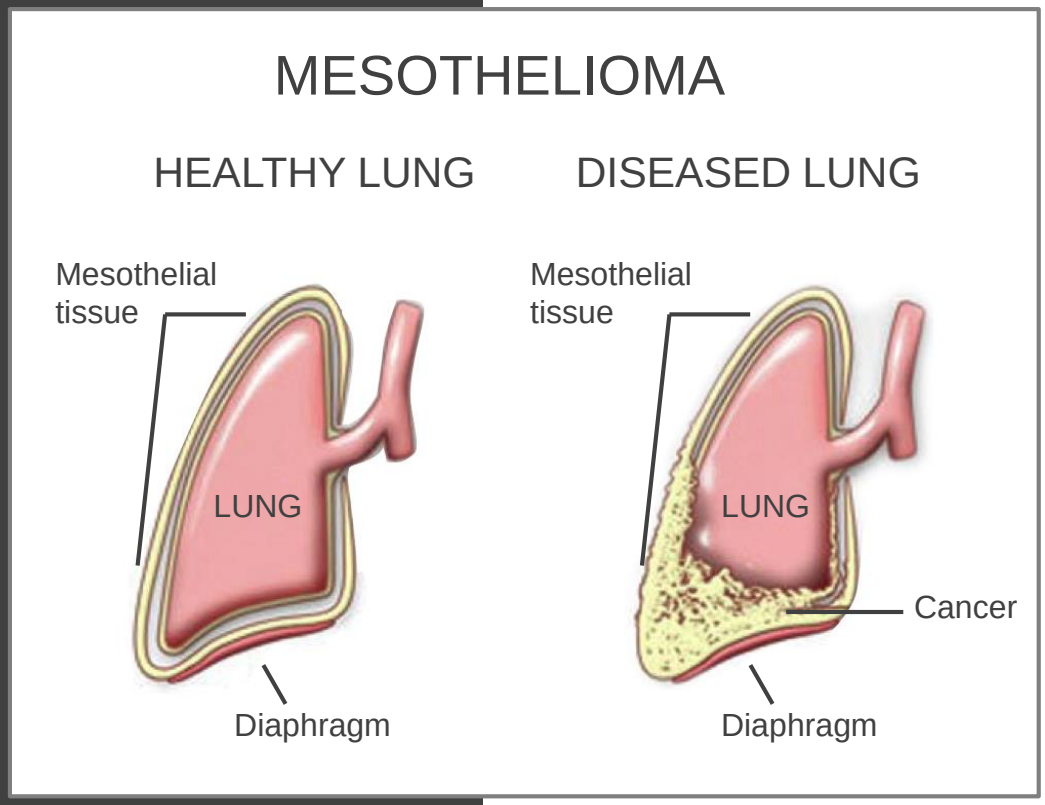
ONCOS-102 target launch indication

MALIGNANT PLEURAL MESOTHELIOMA

- **Orphan disease**, estimated 15,000 new cases per year (EU, USA, Australia)
- **Incidence is increasing** and predicted to peak in 5-10 years
- Often **caused by asbestos** exposure, with a latency period of up to 40 years before diagnosis
- Aggressive cancer form with **median survival of 12 months**
- **No significant treatment advance** in the last decade



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ONCOS-102 has the potential to become a breakthrough

MESOTHELIOMA IS SHORTEST PATH-TO-MARKET

Rationale for ONCOS-102 opportunity in mesothelioma:

Become frontline therapy

- **Preclinical data and phase I results** indicate potential of ONCOS-102 in mesothelioma
- **Ongoing randomized phase I/II trial** combining ONCOS-102 with SoC chemotherapy
- **Good safety profile**

Orphan Drug Designation

- High unmet medical need, ONCOS-102 has **orphan drug designation**
- Opportunity for priority regulatory review, and **quick route-to-market**
- 7 year **market exclusivity** in the US and 10 years in the EU

Limited competition

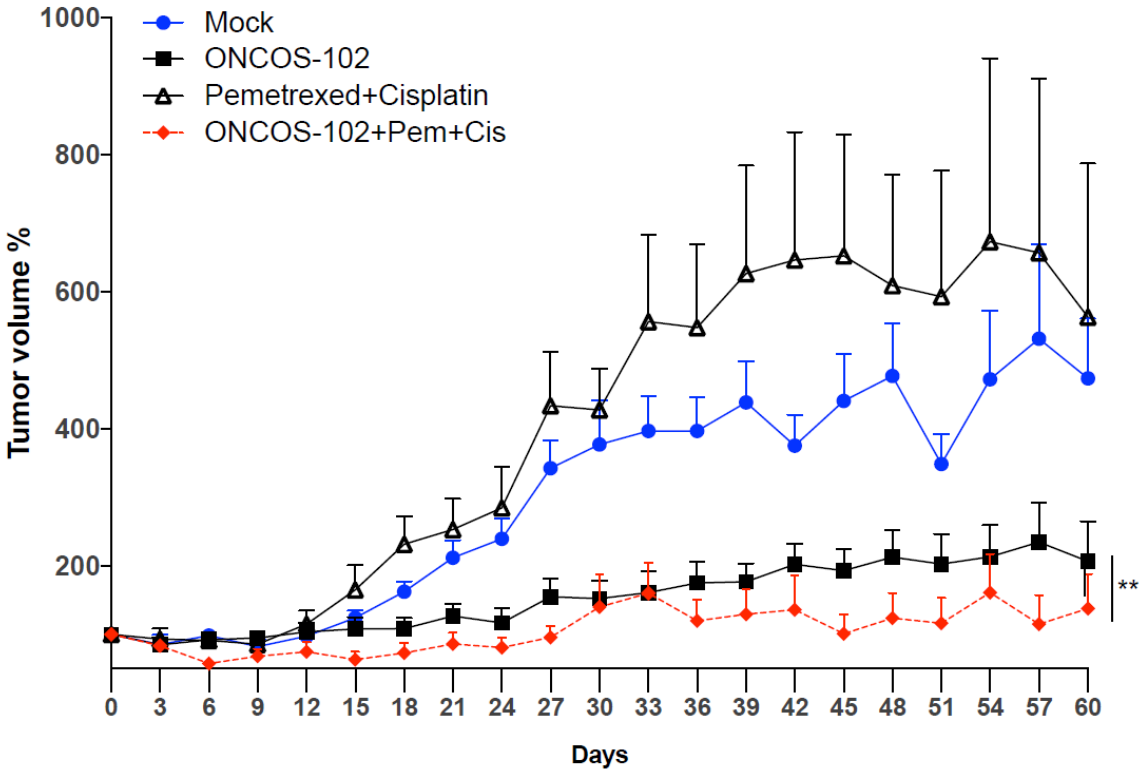
- CPIs show some early signs of efficacy, but are **potential ONCOS-102 combinations**, rather than competitors
- **No/few competing viruses** and vaccines in current clinical development in mesothelioma

SYNERGY BETWEEN ONCOS-102 AND CHEMOTHERAPY

demonstrated in mesothelioma mouse model

Anticancer effect of ONCOS-102 and standard of care chemotherapy in xenograft mouse mesothelioma model

% change in tumor volume, 7 animals per group (14 tumors/group)



Effects observed at Day 60:

ONCOS-102 vs. mock

56% tumor volume reduction
p < 0.01

ONCOS-102 vs. pem/cis

63% tumor volume reduction
p < 0.01

ONCOS-102+pem/cis vs. pem/cis

75% tumor volume reduction
p < 0.001

ONCOS-102+pem/cis vs. ONCOS-102

33% tumor volume reduction
p < 0.01

SOURCE: Kuryk et al., Int J Cancer, 10 June 2016

ONCOS-102 CAN TURN MESOTHELIOMA HOT

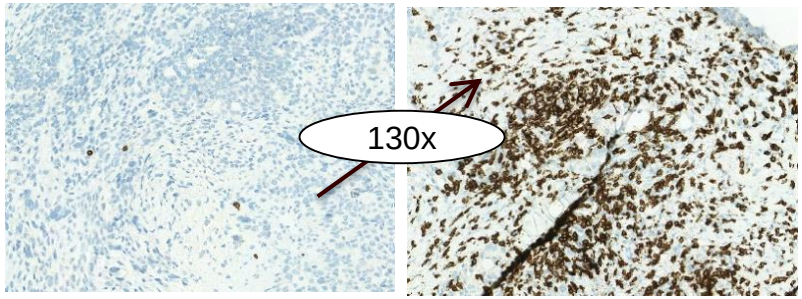
demonstrated in 2 of 2 mesothelioma patients in phase I basket trial

CD8+ T-cells in tumor
Tumor biopsy staining

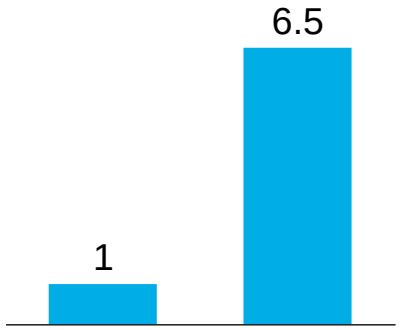
CD4+ T-cells in tumor
Fold change

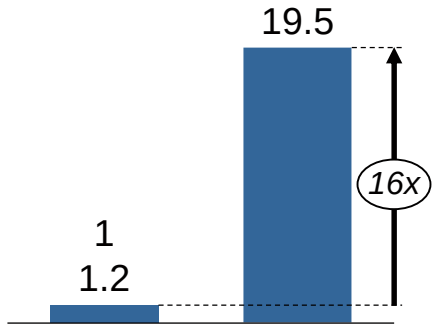
PD-L1 positive tumor cells
% of total

***Mesothelioma** – hase I, patient 14*

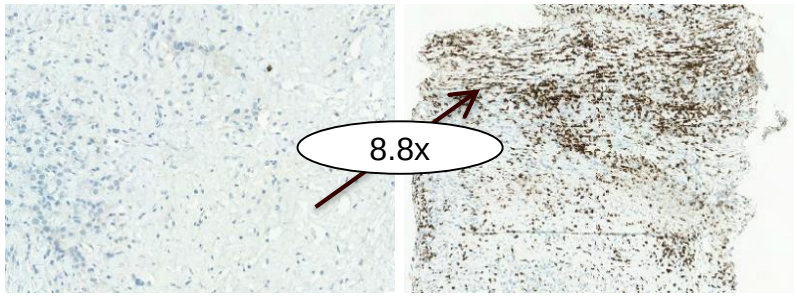


Baseline Week 5

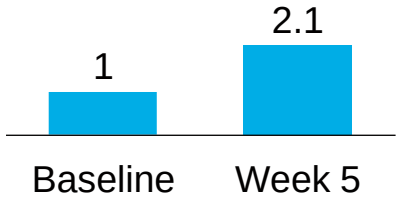


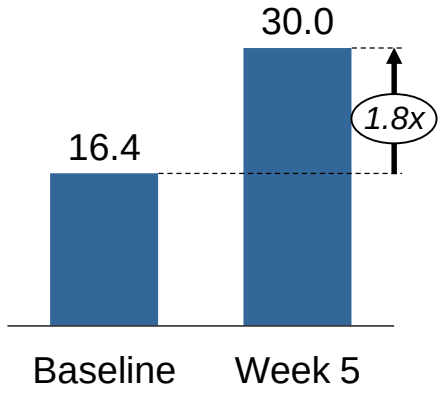


***Mesothelioma** – Phase I, patient 9*



Baseline Week 5

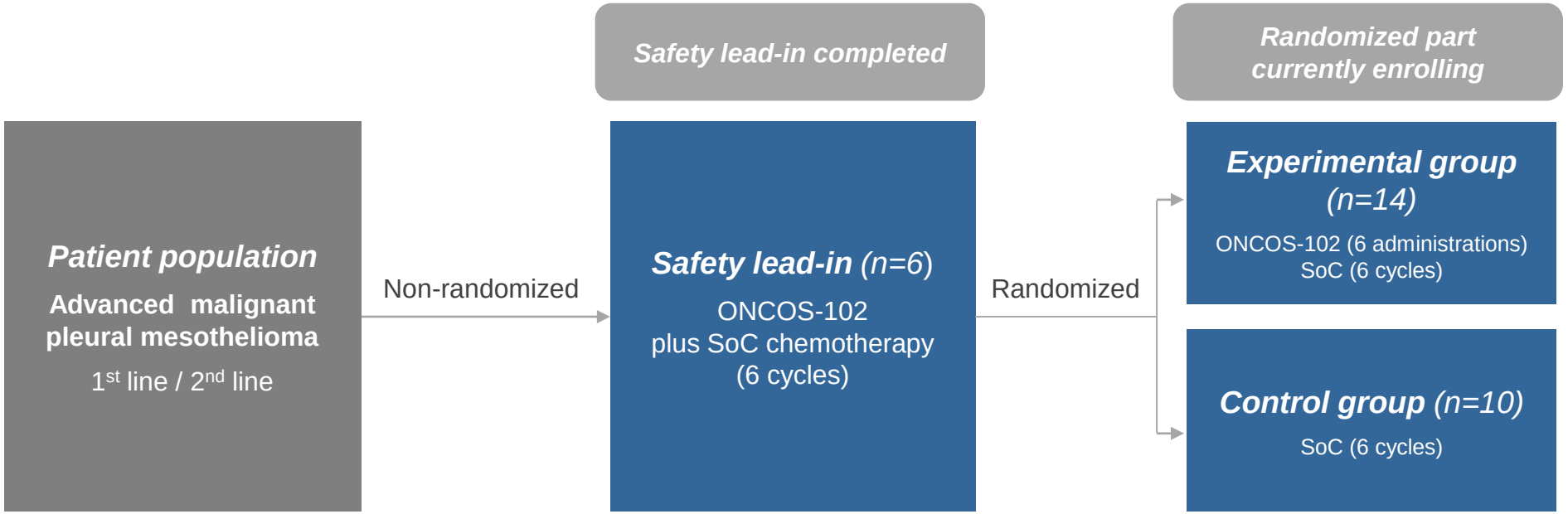




Ranki et al., Journal for Immunotherapy of Cancer 2016, 4(17)

ONCOS-102 in malignant pleural mesothelioma

PHASE I/II STUDY DESIGN IN COMBINATION WITH SoC



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Ongoing ONCOS-102 malignant pleural mesothelioma Phase I/II trial

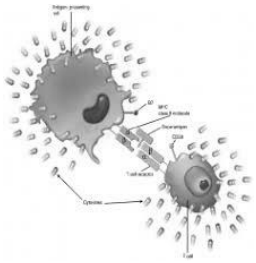
SIGNAL OF EFFICACY IN THE FIRST 6 PATIENTS

1
Safety

- ✓ ONCOS-102 **well-tolerated** in combination **with chemotherapy**

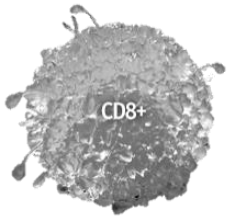
2
Innate immune activation

- ✓ **Systemic increase of pro-inflammatory cytokines** in 6/6 patients (IL-6, TNFα and IFNγ)



3
Adaptive immune activation

- ✓ Increase in **tumor infiltration of CD4+ and CD8+ T-cells** in 3/4 patients



4
Clinical activity

- ✓ **Clinical activity** seen in **3/6 patients** after 6 months
- ✓ **50% disease control rate**

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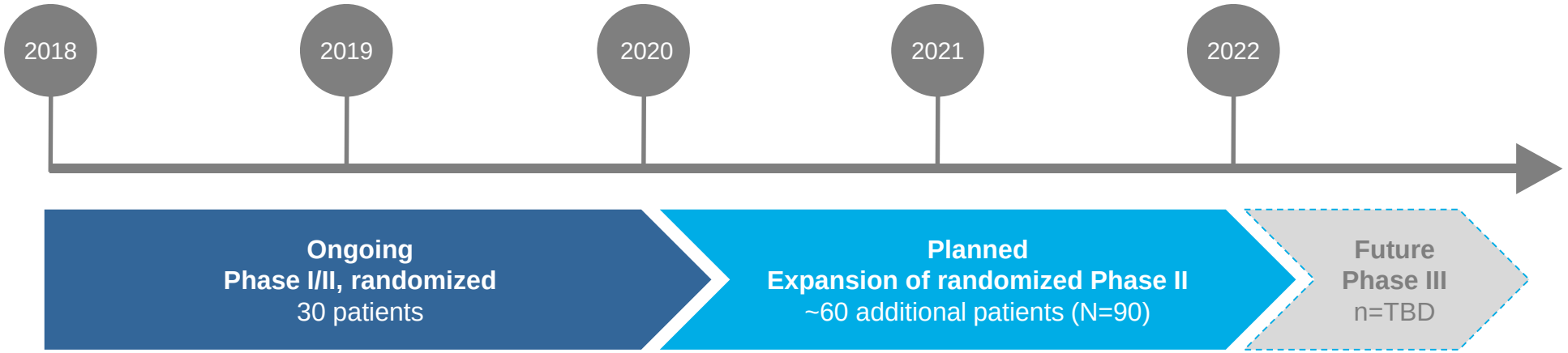
ONCOS-102 in malignant pleural mesothelioma

DEVELOPMENT STRATEGY AND INDICATIVE TIMELINES



- Randomized ORR and OS data 30 patients
- Decide on possible CPI combination arm
- EMA & FDA advisory meetings

- Randomized ORR and OS data 90 patients
- Potentially use as basis for a submission for conditional approval
- Potentially start Phase III OS trial for full MAA

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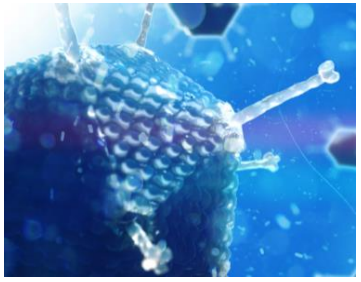
WHY ONCOS-102?

1
In vivo efficacy

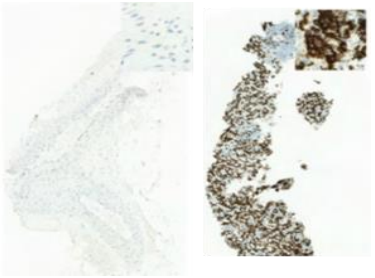
- **Efficacy shown** in both melanoma and mesothelioma models
- **Demonstrated synergy** with both CPIs and chemotherapy

2
Innate immune activation



- **Strong innate immune activation** as single agent, and in combinations, in nearly all injected patients

3
CD8+ T-cell response



- Validated to induce **cancer specific CD8+ T-Cells** both clinically and *in vivo*
- Both **systemic and tumor-infiltrating** T-cells

4
Well tolerated

- **>130 patients treated to date**
- **Well-tolerated** both as monotherapy and in combination with **CPIs and chemotherapy**

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3

2Q & 1H 2018 Financials

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TARGOVAX HAS A SOUND FINANCIAL POSITION

with cash to complete the planned clinical program well into 2H 2019

Operations

Cash end of 2Q - Jun 30th 2018

201 / 25

NOK million **USD million**

Net cash flow - total 2Q

-28 / -3

NOK million **USD million**

Annual run rate - last four quarters

109 / 13

NOK million **USD million**

The share

Market Cap - at share price NOK ~10

600 / 70

NOK million **USD million**

Daily turnover - rolling 6 month avg.

2.6 / 0.3 / 0.5

NOK million **USD million** **% of share capital**

Analyst coverage

DNB, ABG Sundal Collier, Arctic, Redeye, Edison

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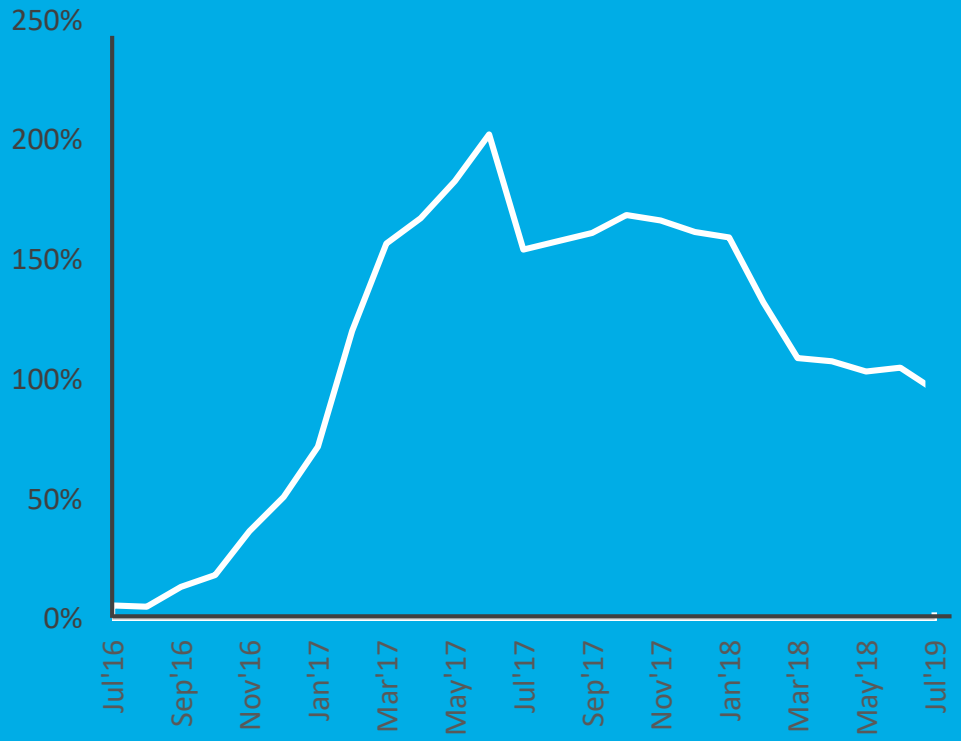
TARGOVAX IS LISTED ON THE OSLO STOCK EXCHANGE

and included in the OSEBX index as of December 2017

TRVX share turnover (% of share capital, rolling 12 month)



- USD ~70 m market cap
- USD 0,3m avg. daily turnover in last 6 months
- USD 25m total turnover in 2Q
- 240k shares avg. daily volume in 2Q
- ~ 4,100 owners
- 52.6m shares (57.4 fully diluted)

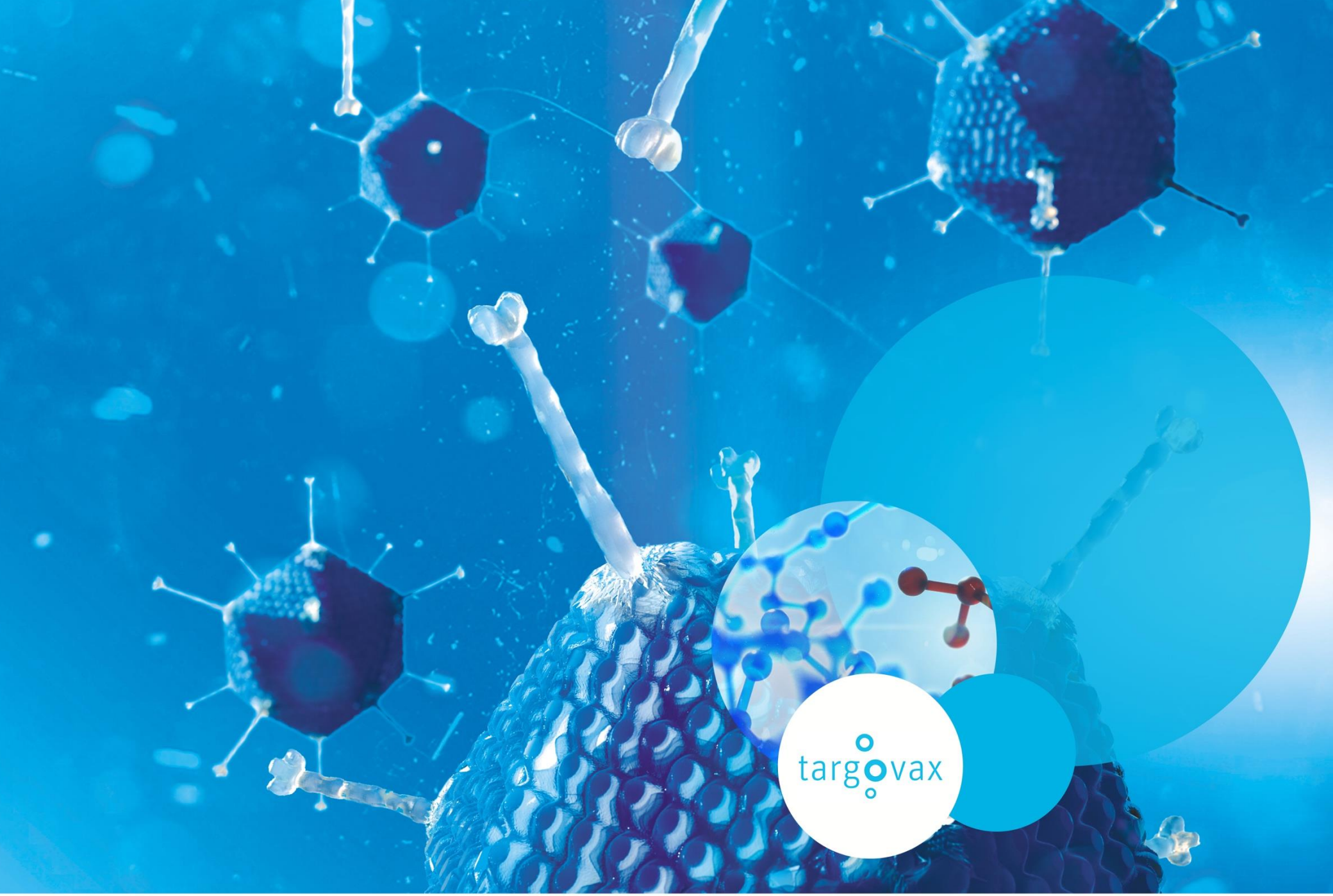
R&D PIPELINE OVERVIEW AND MILESTONES

Platform	Product candidate	Preclinical	Phase I	Phase II	Phase III	Last event	Next expected event
ONCOS	ONCOS-102 oncolytic adenovirus	**Mesothelioma** Comb. w/ pemetrexed/cisplatin[1]				Phase Ib safety lead-in cohort, incl. immune activation and ORR data (6 pts)	**1H 2020** Randomized ORR data 30 pts
		Melanoma Comb. w/KEYTRUDA®				First safety review, incl. immune activation (4 pts)	**2H 2018** Interim immune and ORR data
		Peritoneal cancers[2,3] Partner: Ludwig, CRI & AZ Comb. w/IMFINZI®				First dose escalation cohort safety review (4 pts)	*Update by partner, expected 2019*
		Prostate[3] Partner: Sotio Comb. w/DCVAC				First patient dosed	*Update by partner, expected 2019*
	Next-gen ONCOS	**3 viruses** undisclosed				Virus construct cloning and *in vitro* validation	**1H 2019** Target disclosure and *in vivo* data
TG	**TG02** neo-antigen cancer vaccine	**Colorectal cancer** Proof-of-mechanism Comb. w/KEYTRUDA®				First safety review, incl. immune activation data (3 pts)	**1H 2019** Immune activation and mechanistic data
	TG01/02 neo-antigen cancer vaccine	**CPI synergy** TG + PD-1					**1H 2019** TG02 + PD-1 combination *in vivo* data

[1] Current standard of care chemotherapy for patients with unresectable malignant pleural mesothelioma
[2] Patients with advanced peritoneal disease, who have failed prior standard chemotherapy and have histologically confirmed platinum-resistant or refractory epithelial ovarian or colorectal cancer
[3] Partner sponsored trials

Ongoing partner sponsored trials

targovax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