Arming the patient's immune system to fight cancer

DnB Healthcare conference

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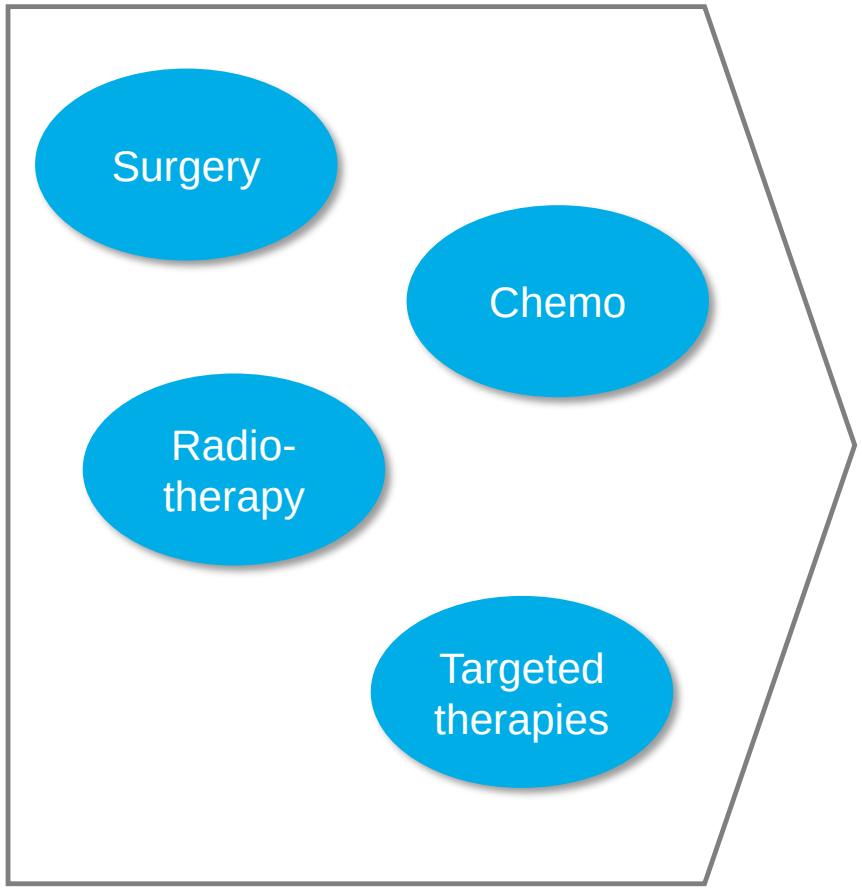
There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in these forward-looking statements. These factors include, among other things, risks or uncertainties associated with the success of future clinical trials; risks relating 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.

Immunotherapy – enables the immune system to kill cancer cells

Traditional cancer treatment

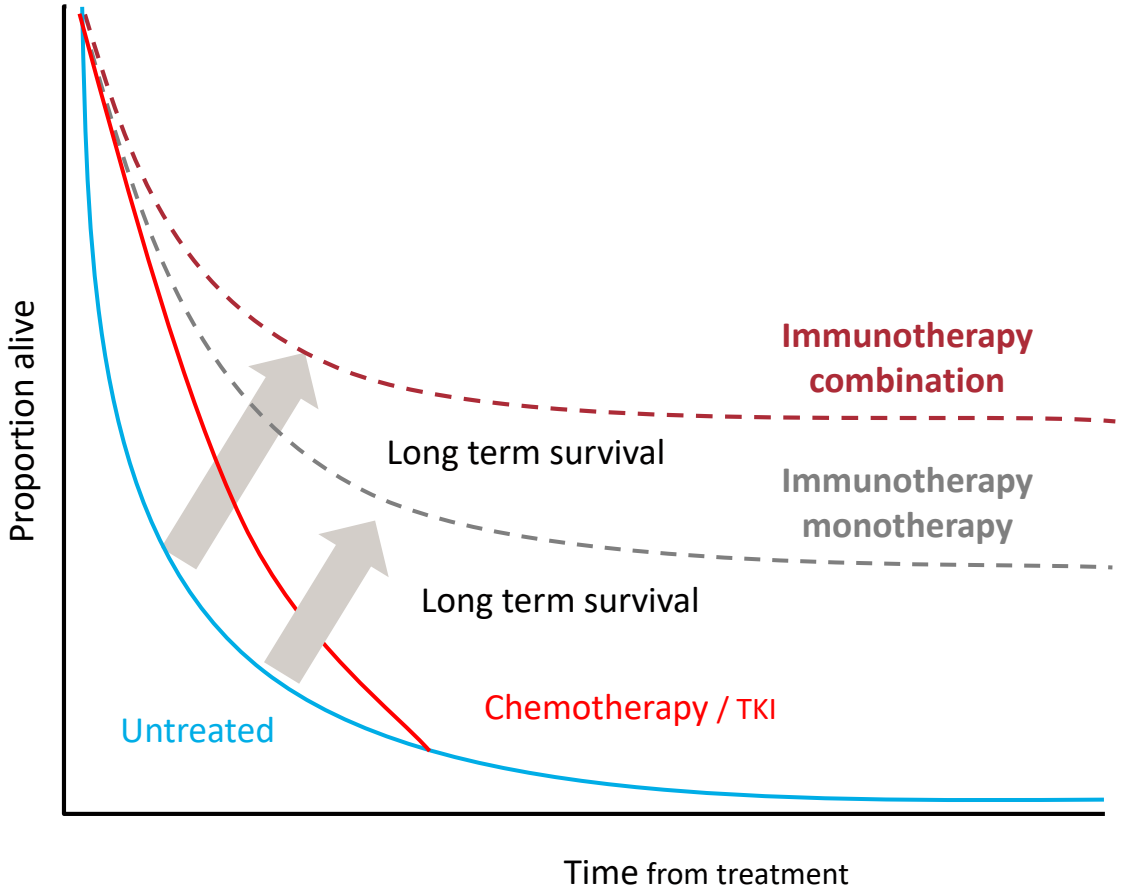


New approach - Immunotherapy

Enables the immune system to kill cancer cells:

- **Oncolytic viruses**
  - Release cancer antigens
  - Imlygic, ONCOS-102
- **Peptide vaccines**
  - Mimic cancer antigens
  - TG01, TG02
- **Cell therapies**
  - Load T-cells with antigen receptors
  - Chimeric antigen receptors, CARs
- **Checkpoint inhibitors**
  - General upgrade of immune system
  - Yervoy, Keytruda, Opdivo, Tecentriq

The goal is to make cancer a chronic disease by combining immuno-oncology therapies



- Yervoy started the revolution in cancer treatment in 2011
- Due to immuno-oncology combination the number of addressable cancers is expected to increase to at least 60%

Checkpoint inhibitors show signs of “curing” some cancers - example of Yervoy treated melanoma

Prior to Yervoy

4 weeks

8 weeks

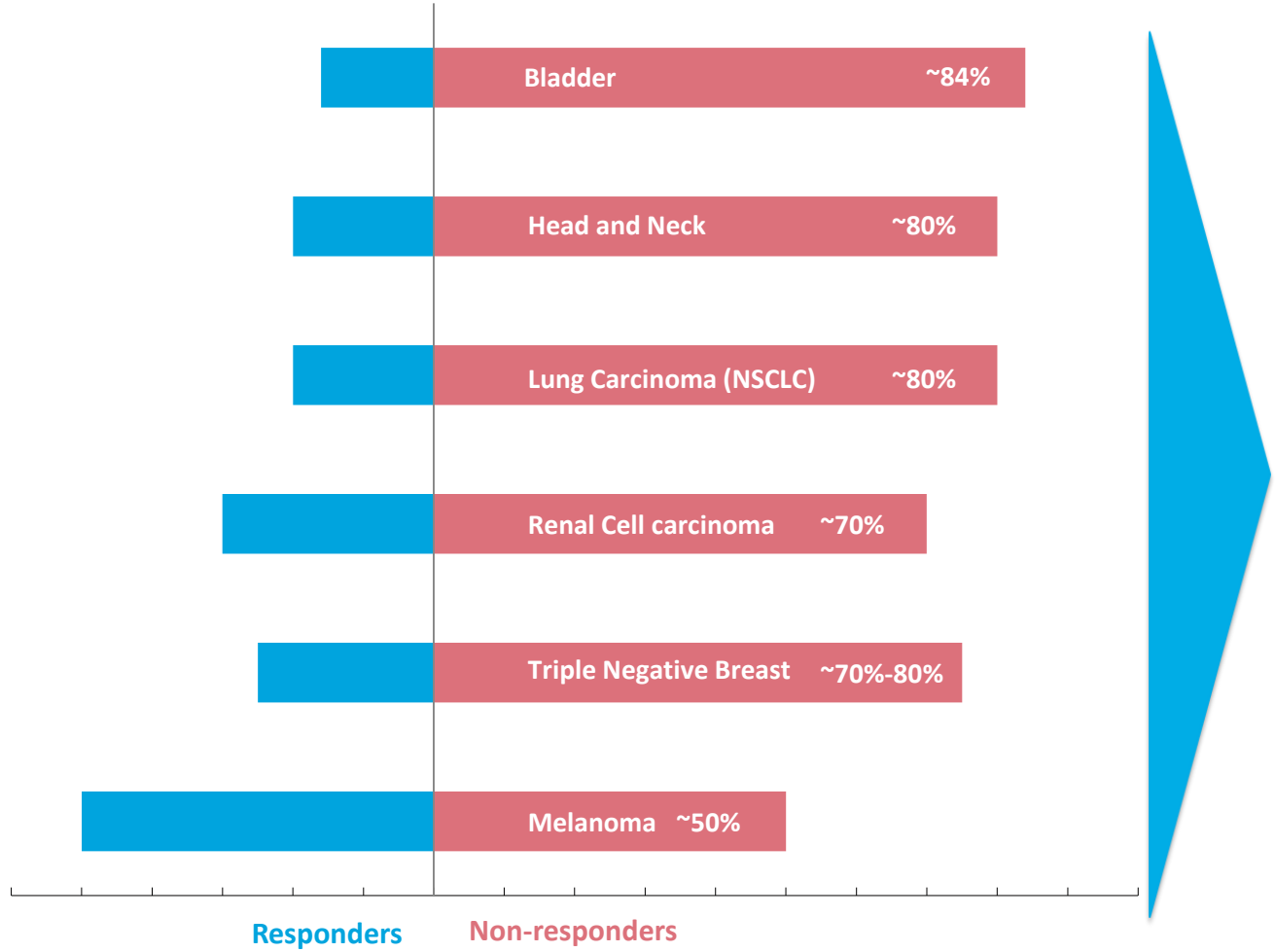
20 weeks

8 months

1 year

Large unmet need for checkpoint inhibitor refractory patients

Response rate to checkpoint inhibitors (CPIs)



ONCOS-102 can potentially activate non-responders to become susceptible to CPI's

ONCOS-102: CPI refractory melanoma trial details

Background

- No standard of care for patients not responding to CPI

Setting

- Advanced malignant melanoma patients not responsing to CPIs
- Immune activate CPI non-responders with ONCOS-102, then re-challenge with a CPI (Keytruda)

Cohorts

- Six patients with prior PD1 monotherapy
- Six patients with prior PD1 plus Yervoy combination therapy

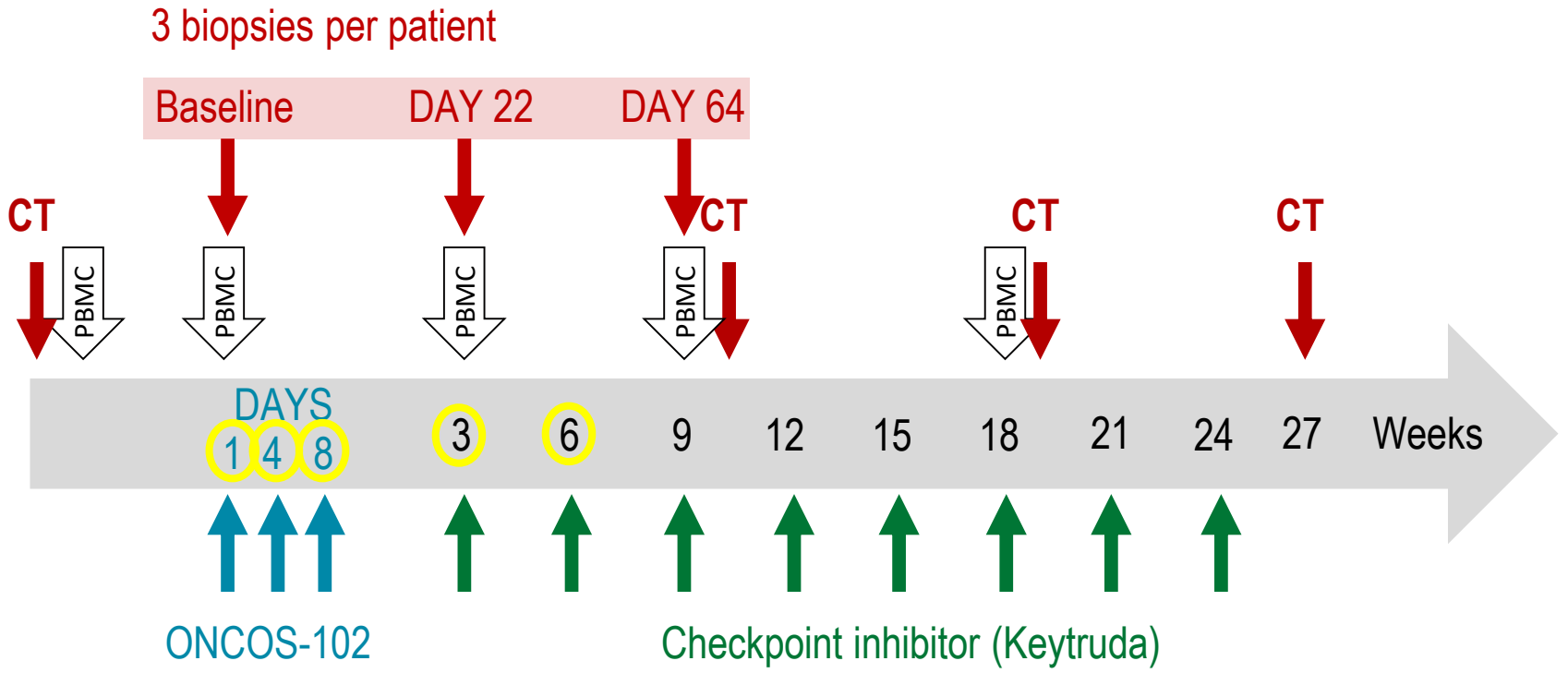
Key endpoints

- Safety
- Immune activation and clinical response data
- Correlation of immune activation and clinical response data

ONCOS-102: CPI refractory melanoma trial details

Open-label Phase I trial

- ONCOS-102: 3 injections at day 1, 4 & 8
- CPI (Keytruda) at day 22, then every 3 weeks for 5 months



How does ONCOS-102 work?

At the tumor:

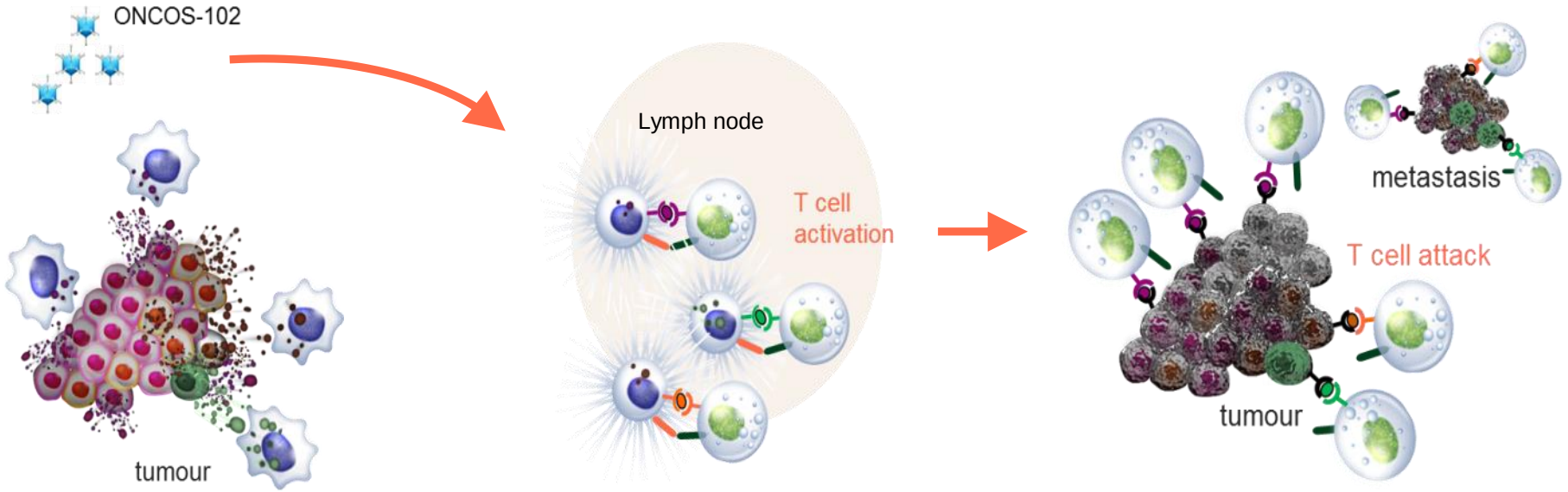
Virus injected directly into tumor, replicates, lyses cells and releases antigens. Immune system picks up antigens

At the lymph node:

Immune system starts production of tumor specific T-cells

At the tumor lesions:

T-cells find tumor lesions with corresponding tumor antigens and kill the cancer cells

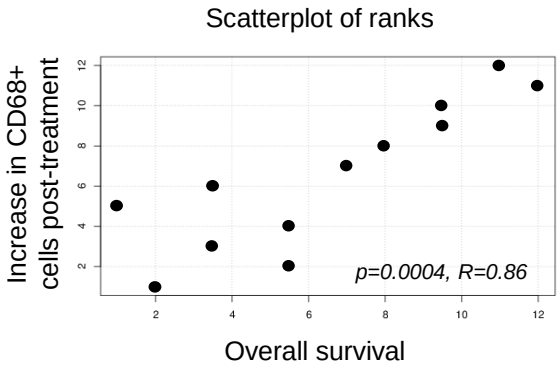


Initial ONCOS-102 trial showed strong T-cell response

Evidence that immune system recognizes tumor threat

Innate Immune System (biopsy)

- Induction of proinflammatory cytokines + fever (all patients)
- Infiltration of innate immune cells into tumors in 11 out of 12 patients



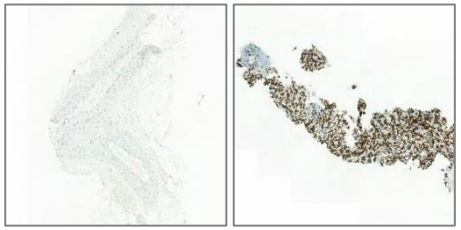
Correlation between post-treatment increase in innate immune cells and OS

Evidence that T-cells find the tumor and are cell killing

Adaptive immune system (biopsy)

- Increase in T-cell infiltration into tumors (including CD8+ killer T-cells) in 11 out of 12 patients
- Observation in one non-injected distant metastasis

OvCa. patient (FI1-19)



Correlation between post-treatment increase in CD8+ T-cells and OS (p=0.008, R=0.74)

Evidence that newly produced T-cells are tumor specific

Anti-tumor immune response (blood)

- Systemic induction of tumor-specific CD8+ T-cells

Ovarian patient:
NY-ESO-1, MAGE-A1, MAGE-A3, and Mesothelin specific CD8+ cells

Mesothelioma patient:
MAGE-A3 specific CD8+ cells

Associated with clinical benefit

Six shots on goal

	Cancer indication	Combo with		2016 H2	2017 H1	2017 H2	2018 H1	2018 H2	2019 H1
ONCOS-102	Melanoma	CPI			Phase I				
	Mesothelioma	Chemo	Orphan ind.	Phase Ib/II					
	Ovarian & Colorectal	CPI	Orphan ind. Sponsor: Ludwig		Phase I/II				
	Prostate	DC therapy	Sponsor: Sotio		Phase I				
TG	Resected Pancreatic	Chemo	Orphan ind.	Phase I/II					
	Colorectal	CPI			Phase Ib				

Interim data

Clinical, immune and safety data

4 readouts 2017

5 readouts 2018

TG01 upcoming data: Two-year survival in resected pancreatic cancer

2015-16 data demonstrated

- 14 of 15 patients alive after 1 year (19 ITT, 15 evaluable patients)
- DTH response 15 of 18 patients
- RAS specific T-cell response: 6 of first 8 patients

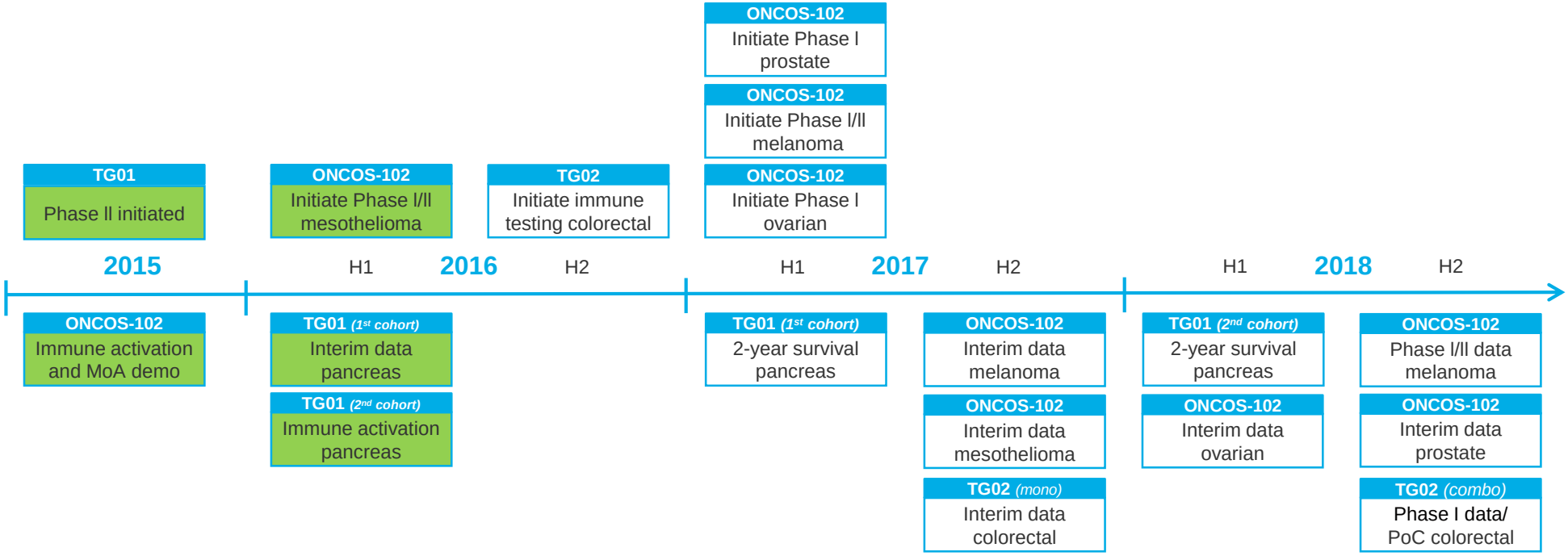
First half 2017

Two-year survival

First cohort: 19 patients

TG has potential to enable the immune system to identify and destroy tumors bearing any RAS mutations.

Multiple near term value inflection points



Financial summary

Operations	
Cash	**NOK 193m** at 30 September 2016
Cash run rate	**NOK 121m** (last four quarters)
Annual opex	**NOK 129m** (last four quarters)

The Targovax share	OSE: TRVX
Daily liquidity	**NOK 4m** (last month's avg.)
Market Cap	NOK 600m
Number of shares	42,2m (44,4m fully diluted)
Analyst coverage	DNB, ABGSC, Arctic, Redeye, Norske Aksjeanalyser

Arming the patient's immune system to fight cancer

1 **TG**	✓ Two year survival data of TG01 in resected pancreatic cancer ✓ Data in 1H17
2 **ONCOS**	✓ Important proof of concept trial in CPI refractory melanoma ✓ Data in 2H17
3 **Clinical trials**	✓ Six shots on goal