Arming the patient's immune system to fight cancer

4Q & FY 2016 presentation

16 February 2017

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Fourth quarter highlights

Patents

- Targovax granted an European patent for ONCOS-102, extending patent coverage
- Follows a similar US patent in June
- Both expire in 2029

Finances

- Cash NOK 172m
- Operating expenses NOK 31m
- Operating cash flow NOK -23m

People

- Øystein Soug appointed as CEO on 1 November

Post-period

- Erik Digman Wiklund appointed CFO, starting April 2017
- Encouraging top line two-year survival data from TG01 clinical trial in resected pancreatic cancer patients

* PoC = Proof of Concept

TG01 Phase I/II resected pancreatic trial

- **Encouraging top line two-year survival data -**

TG01 in resected pancreatic cancer: Encouraging survival rate and "signal" of efficacy

	First Cohort	Modified Cohort
1 Immunization schedule	• 26 vaccinations over 2 years	• 15 vaccinations over 2 years
2 Patient population	• 15 eligible patients • 19 ITT[1], 4 lost to follow up due to lack of consent	• Recruitment completed • 13 patients
3 Immune activation	• DTH response: 15 of 18 • T-cell response: 6 of 8	• DTH response at 8 weeks: 4 of first 5 • *T-cell response: not yet available*
4 Interim 1-year survival	• 14 of 15 patients alive after 1 year • No patients died from pancreatic cancer during the first year	• Not planned
5 2-year survival	• **13 of 19 patients (68%) alive after 2 year** • Published* historical rate 30-53% suggests a signal of clinical efficacy for TG01 • Abstract submitted to ASCO 2017: efficacy, safety, immune activation data	• *1H18*
6 Safety	• Generally well tolerated • 4 allergic reactions triggering the "modified cohort"	• *Not yet available*

[1] ITT – Intention to treat

[2] J Neoptolemos 2010, J van Loethem 2010, H Oettle 2013, M Sinn 2015, K Uesaka 2016 (In these reported studies overall survival is measured either from surgery or treatment randomization).

TG – background – “reasons to believe”

RAS

- RAS mutations are neoantigens
- Regulate cell proliferation. Mutations cause abnormal cell growth
  - definition of cancer
- Exclusively found in cancer cells

TG-peptides

- Activate both RAS specific CD4+ and CD8+ T cells
  - recognize and destroy mutated RAS cells

History

- 120 patients treated with TG peptides in 1990’s
- Encouraging long-term survival for resected patients treated with TG01 or single TG peptides[1]

[1] Wedén et al, 2011 and Clinical trial reports

Encouraging survival rate and “signal” of efficacy in TG01 trial

CT TG01-01; A Phase I/II Trial of TG01 and Gemcitabine as Adjuvant Therapy for Treating Patients with Resected Adenocarcinoma of the Pancreas

- 68% (13 of 19) of the patients in cohort 1 were alive two years after the resection
  - Published historical rate 30-53% suggests a signal of clinical efficacy for TG01[1]
- Abstract submitted to ASCO 2017 (June) from this 1st cohort
  - Efficacy, safety, immune activation
- In summary: encouraging survival rate and “signal” of efficacy

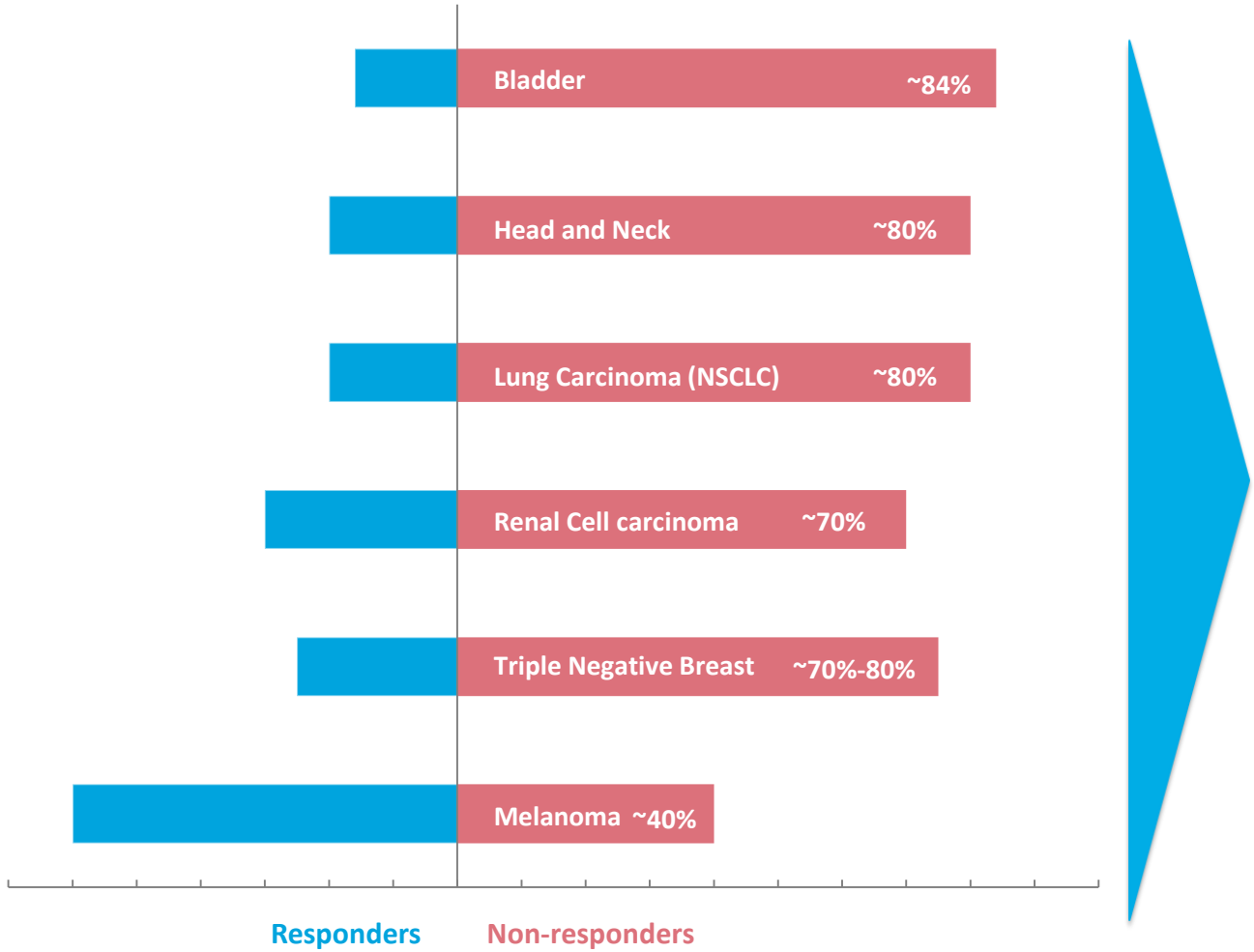
[1] J Neoptolemos 2010, J van Loethem 2010, H Oettle 2013, M Sinn 2015, K Uesaka 2016 (In these reported studies overall survival is measured either from surgery or treatment randomization).

ONCOS-102 Phase I Melanoma trial

- Clinical proof of platform -

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

Sequence

Yervoy – generic name: ipilimumab
Keytruda – generic name: pembrolizumab

How does ONCOS-102 work?

At the tumor:

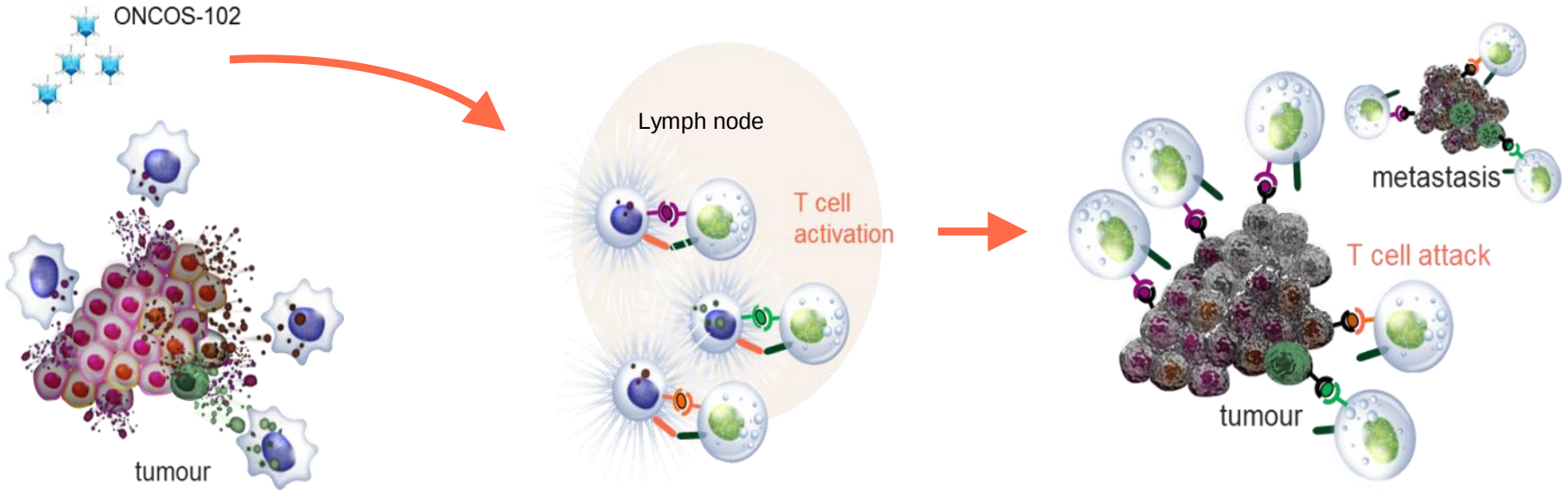
Virus injected directly into tumor, replicates, lyses cells and releases antigens. Immune system picks up antigens

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

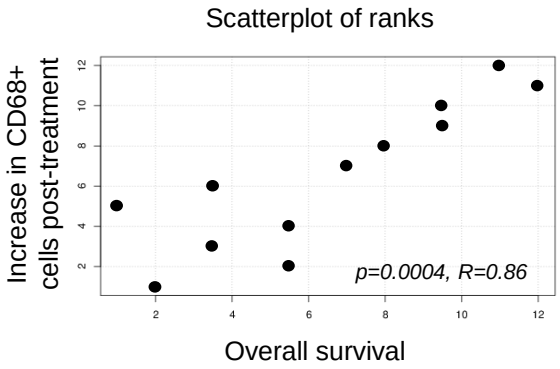


Initial ONCOS-102 trial showed strong T-cell response

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



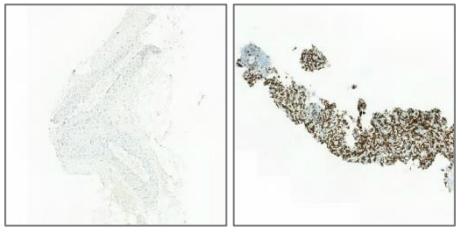
Correlation between post-treatment increase in innate immune cells and OS

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)

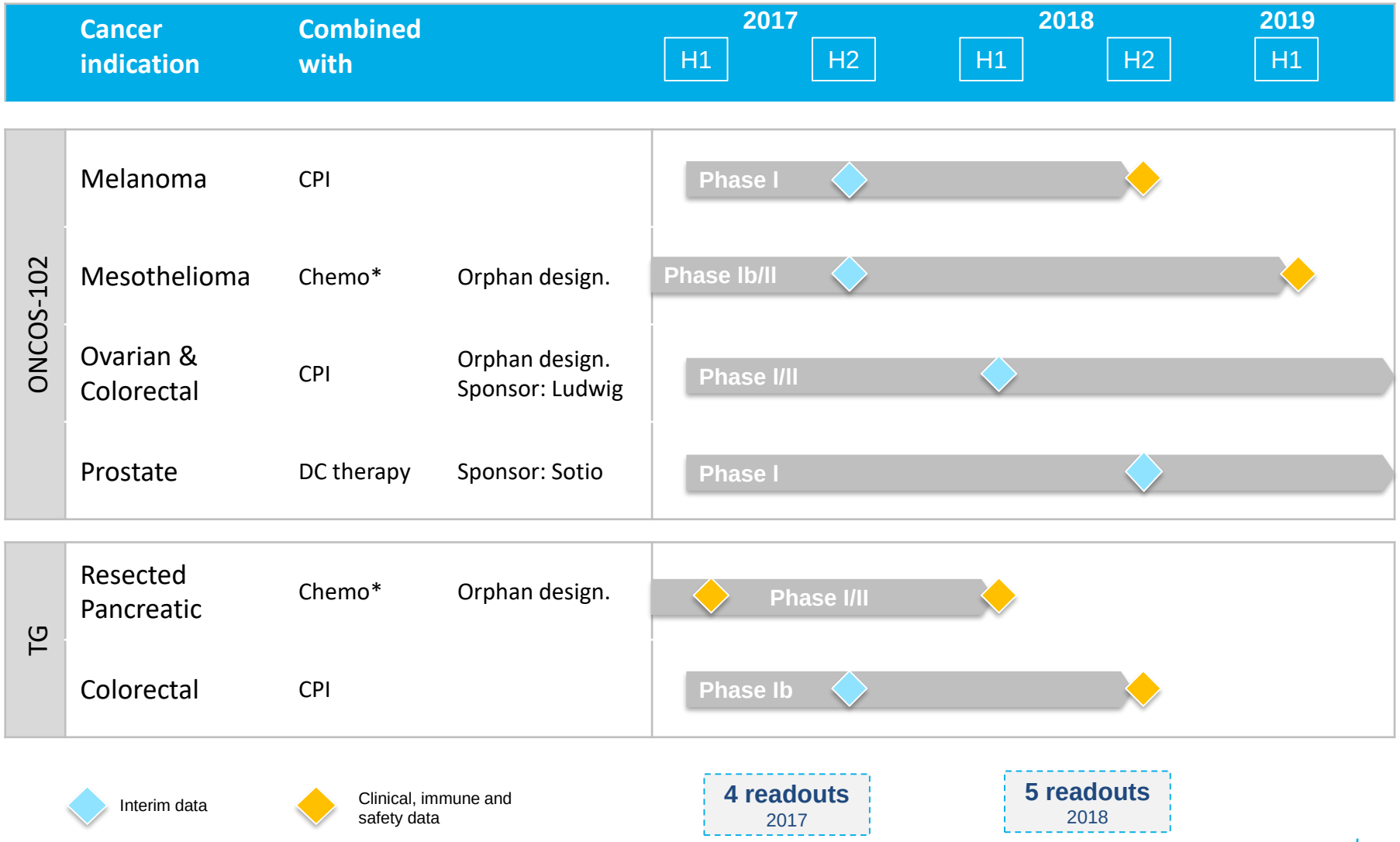
- Systemic induction of tumor-specific CD8+ T-cells

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

Mesothelioma patient:
MAGE-A3 specific CD8+ cells

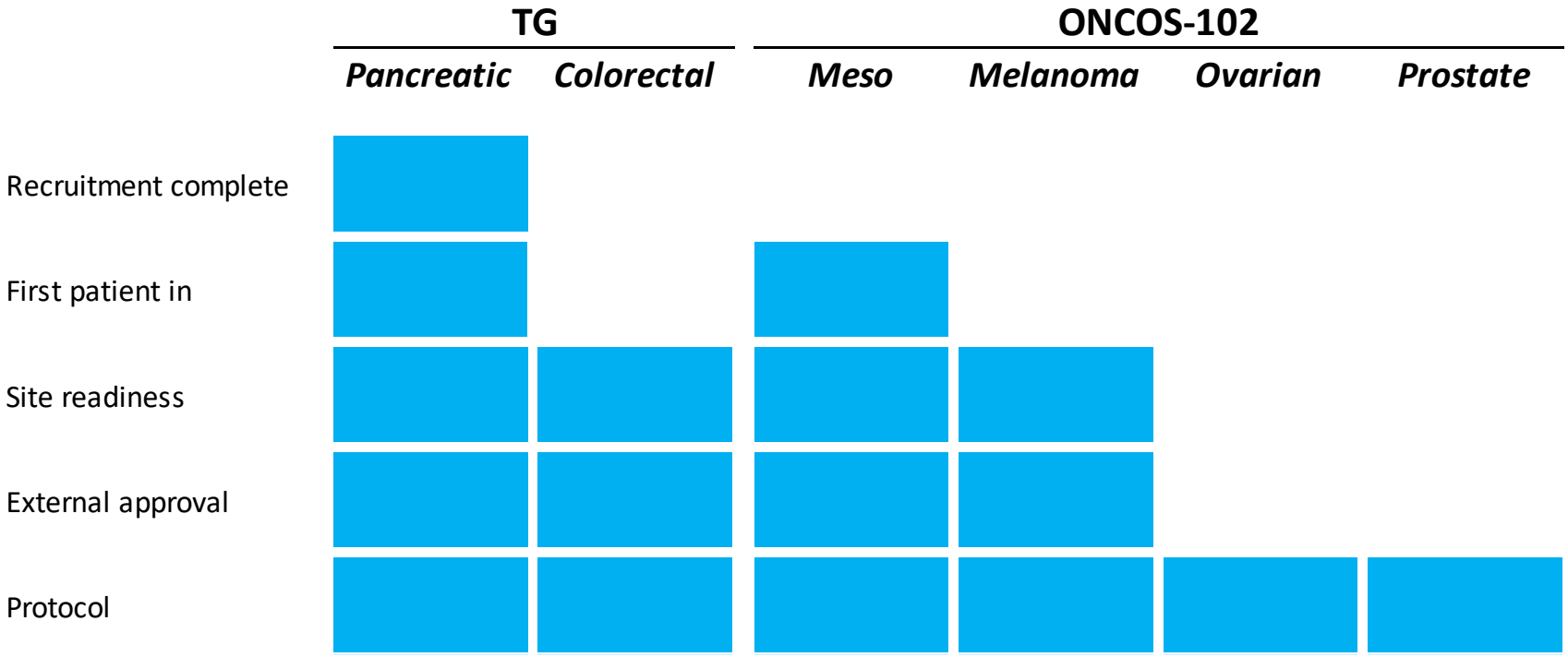
Associated with clinical benefit

Six shots on goal



* In combination with Standard of Care Chemoterapy. Pemetrexed/cisplatin for Mesothelioma and Gemcitabine for Resected Pancreatic

Where are we with the clinical trials?

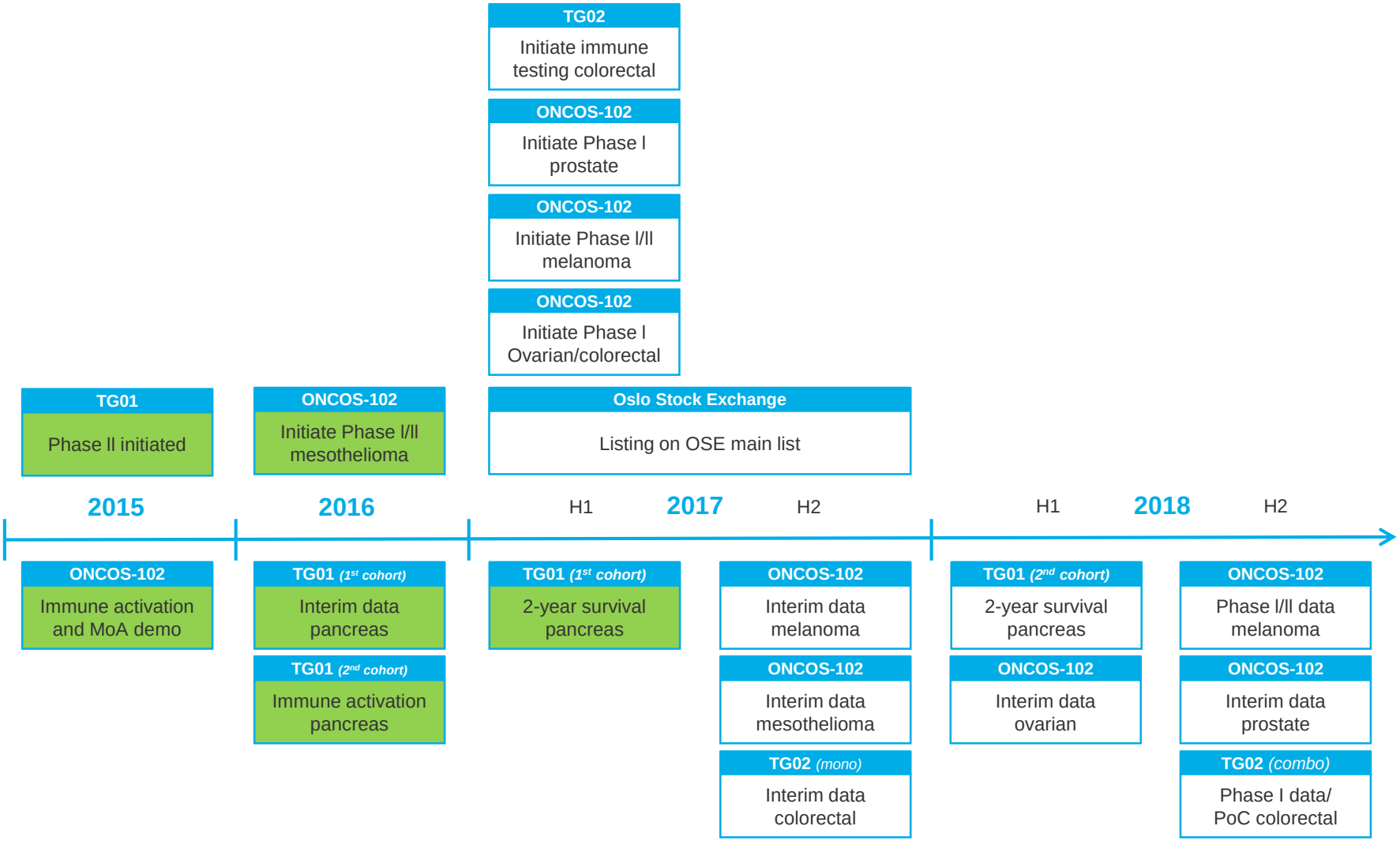


Financial summary

Operations			
Cash	**NOK 172m**	USD 20m	
Yearly run rate	**NOK 110m**	USD 13m	*Last four quarters*
Annual opex	**NOK 120m**	USD 14m	*Last four quarters*

The share	OSE: TRVX		
Daily liquidity	**NOK 9m**	USD 1m	*Last two month's avg.*
Market Cap	**NOK ~1 bn**	USD 123m	*At share price NOK ~24*
Debt	**NOK 40m**	USD 5m	*EUR 6m conditional*
No. of shares	**42.2m**		*44.9m fully diluted*
Analysts	DNB, ABG Sundal Collier, Arctic, Redeye, Norske Aksjeanalyser		

Multiple near term value inflection points



Arming the patient's immune system to fight cancer

1 **Core focus on immuno-oncology**	✓ Lead product is an differentiated oncolytic adenovirus ✓ Targeting refractory solid, injectable tumors
2 **Proprietary platforms and pipeline**	✓ Promising Phase I data from two platform technologies ✓ Immunological findings linked to clinical benefit
3 **Multiple near term value inflection points**	✓ Six combination trials (Phase I and II) ✓ All six trials read out in 2017-2018
4 **Corporate**	✓ Oslo IPO in July 2016 (OSE:TRVX) ✓ Cash at approx. NOK 172m

Appendix

Financial Snapshot

NOK m

	4Q15	1Q16	2Q16	3Q16	4Q16
Total revenue	**0**	**-**	**-**	**0**	**0**
External R&D expenses	-15	-11	-12	-11	-12
Payroll and related expenses	-15	-13	-12	-10	-13
Other operating expenses	-11	-7	-8	-4	-6
Total operating expenses	**-41**	**-31**	**-32**	**-25**	**-31**
Operating loss	-41	-31	-32	-25	-31
Net financial items	-1	-1	-1	-1	-1
Loss before income tax	-42	-32	-33	-26	-32
Net change in cash	-33	-33	-34	85	-21
Net cash EOP	**174**	**141**	**107**	**193**	**172**

Strong shareholder base as per 6 February 2017

	Estimated ownership	
Shareholder	**No. of shares**	**Ownership**
HealthCap	11 155 584	26,4 %
RadForsk	4 077 255	9,7 %
Nordea	2 594 239	6,1 %
Rasmussengruppen	1 820 000	4,3 %
KLP	1 703 333	4,0 %
Nordnet Livsforsikring	1 207 802	2,9 %
Statoil	915 981	2,2 %
Danske Bank (nom.)	770 916	1,8 %
Nordnet Bank AB (nom.)	739 998	1,8 %
Timmuno AS	724 650	1,7 %
Prieta AS	720 000	1,7 %
Sundt AS	400 000	0,9 %
Pohjola	320 966	0,8 %
DNB	291 993	0,7 %
Tobech Invest AS	286 449	0,7 %
Thorendahl Invest AS	260 000	0,6 %
Netfonds Livsforsikring AS	253 639	0,6 %
Avanza Bank AB (nom.)	251 102	0,6 %
Danske Bank (nom.)	182 791	0,4 %
Molnar	181 800	0,4 %
Other shareholders (~2790)	13 332 302	31,6 %
Total	**42 190 800**	**100,0 %**

42.2m ordinary shares

- Management ownership: 2.1%
- Approx. ~2810 shareholders

44.4m[1,2] shares fully diluted

- Average strike price on options ~NOK 21
- Total dilutive effect of options is 5.6%[1]

[1] As per 30 December 2016
[2] Includes outstanding options (2,513,170) and Restricted Stock Units (129,991) to Board members