ACTIVATING THE PATIENT'S IMMUNE SYSTEM TO FIGHT CANCER

Company Highlights

Erik Digman Wiklund, CEO

25 October 2021

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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' 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.

THE IMMUNO-ONCOLOGY REVOLUTION

> 500,000 patients treated per year

> 3,000 ongoing clinical trials

> 40% of US cancer patients eligible

> 10 approved products

SOURCE: Research&Markets; Haslam & Prasad 2019, JAMA; Vaddepally et al. 2020, Cancers

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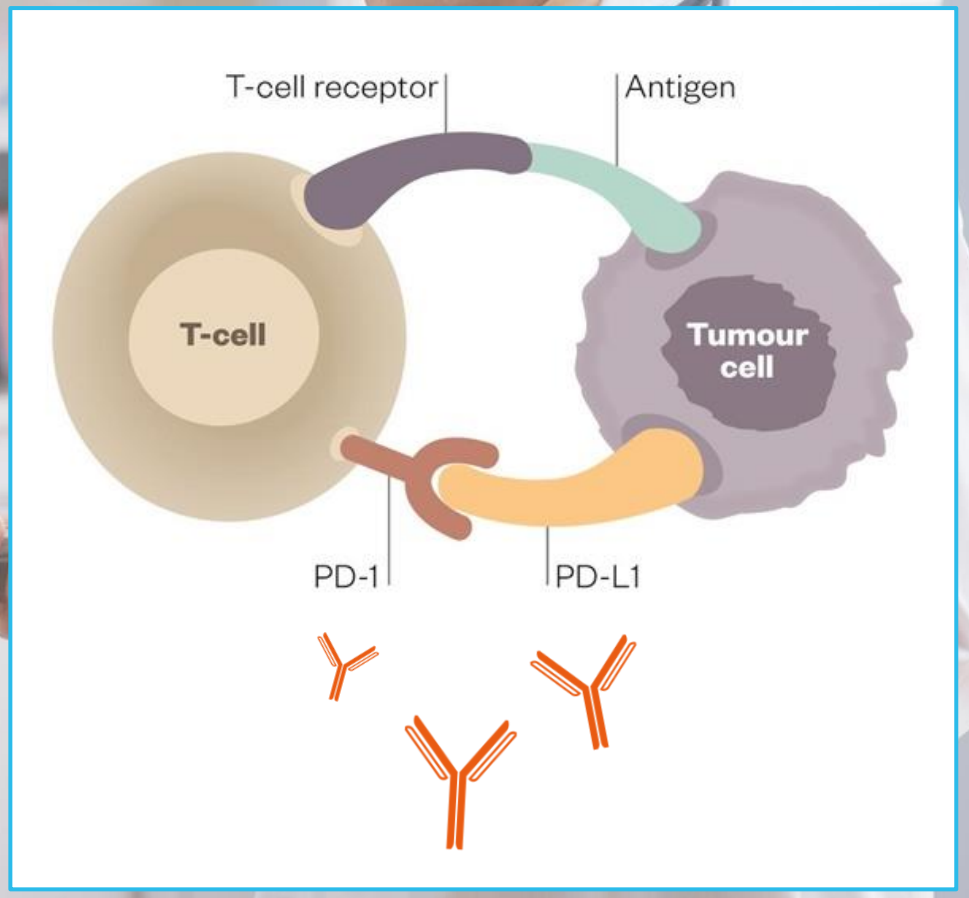
FIRST GENERATION IMMUNO-ONCOLOGY: CHECKPOINT INHIBITORS

Cornerstone of current cancer treatment

Deep and durable responses

$25b annual sales globally

7 products approved to date, many more in development



SOURCE: GlobalData, Research&Markets

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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

SOURCE: Haslam & Prasad, 2019, JAMA

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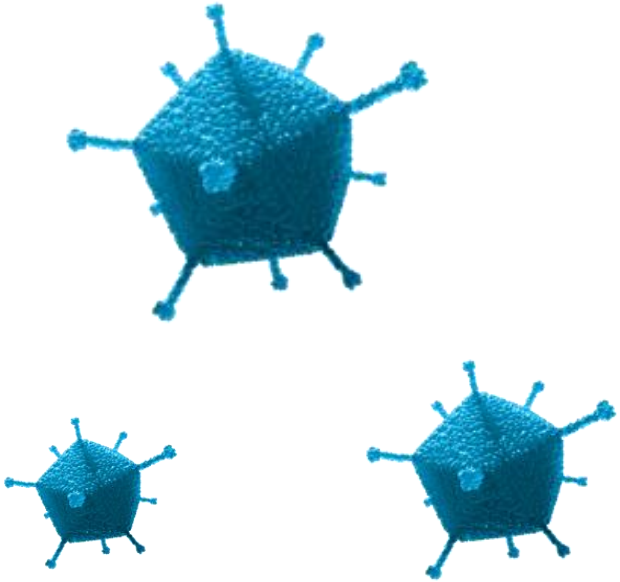
THE SOLUTION:
ONCOS-102 IMMUNE ACTIVATION

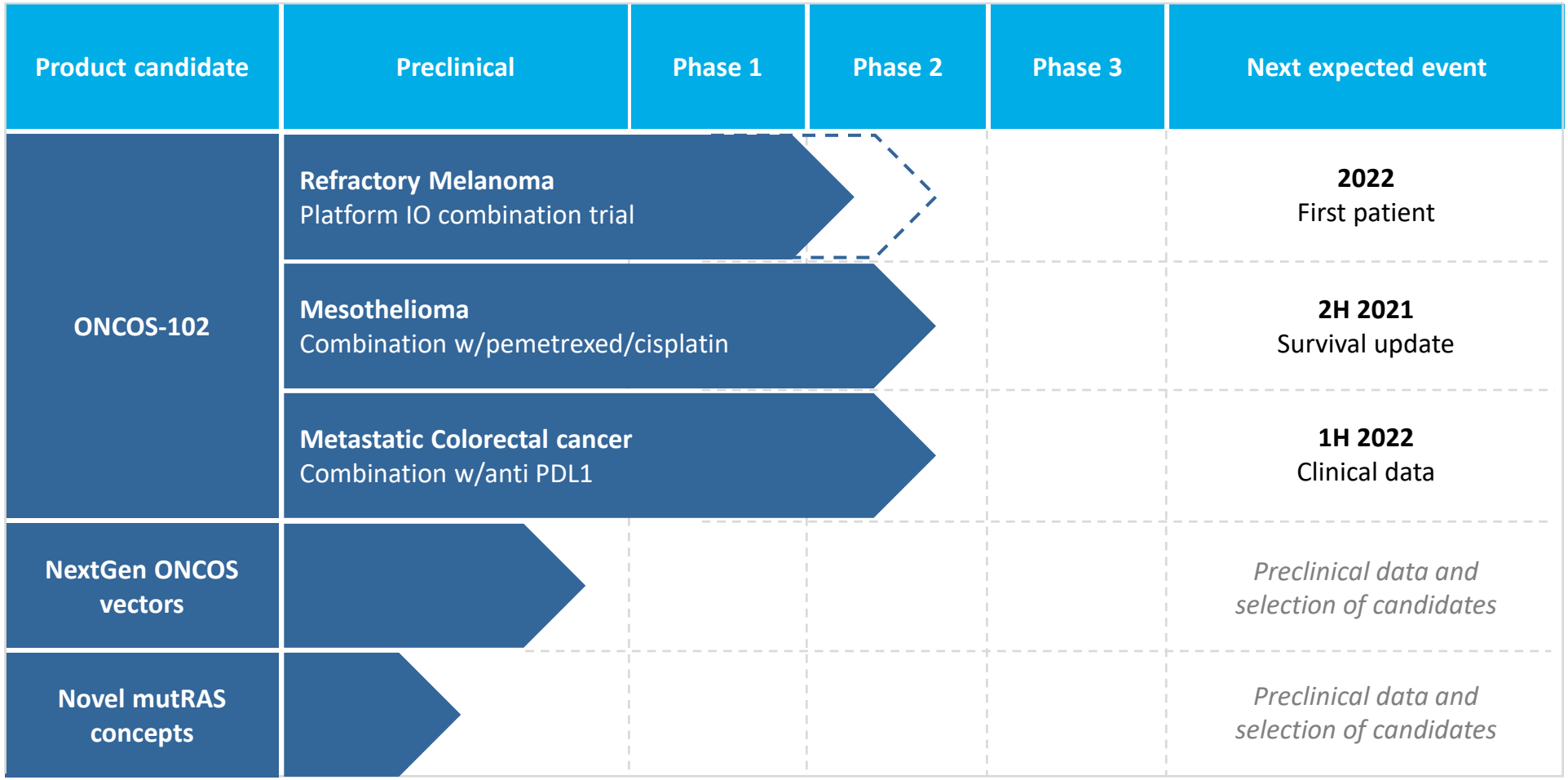


Unblinds the tumor to the immune system

Activates the body´s own T-cells against the cancer

Reverses immunosuppressive defense mechanisms in the tumor

CLINICAL AND PRECLINICAL PIPELINE



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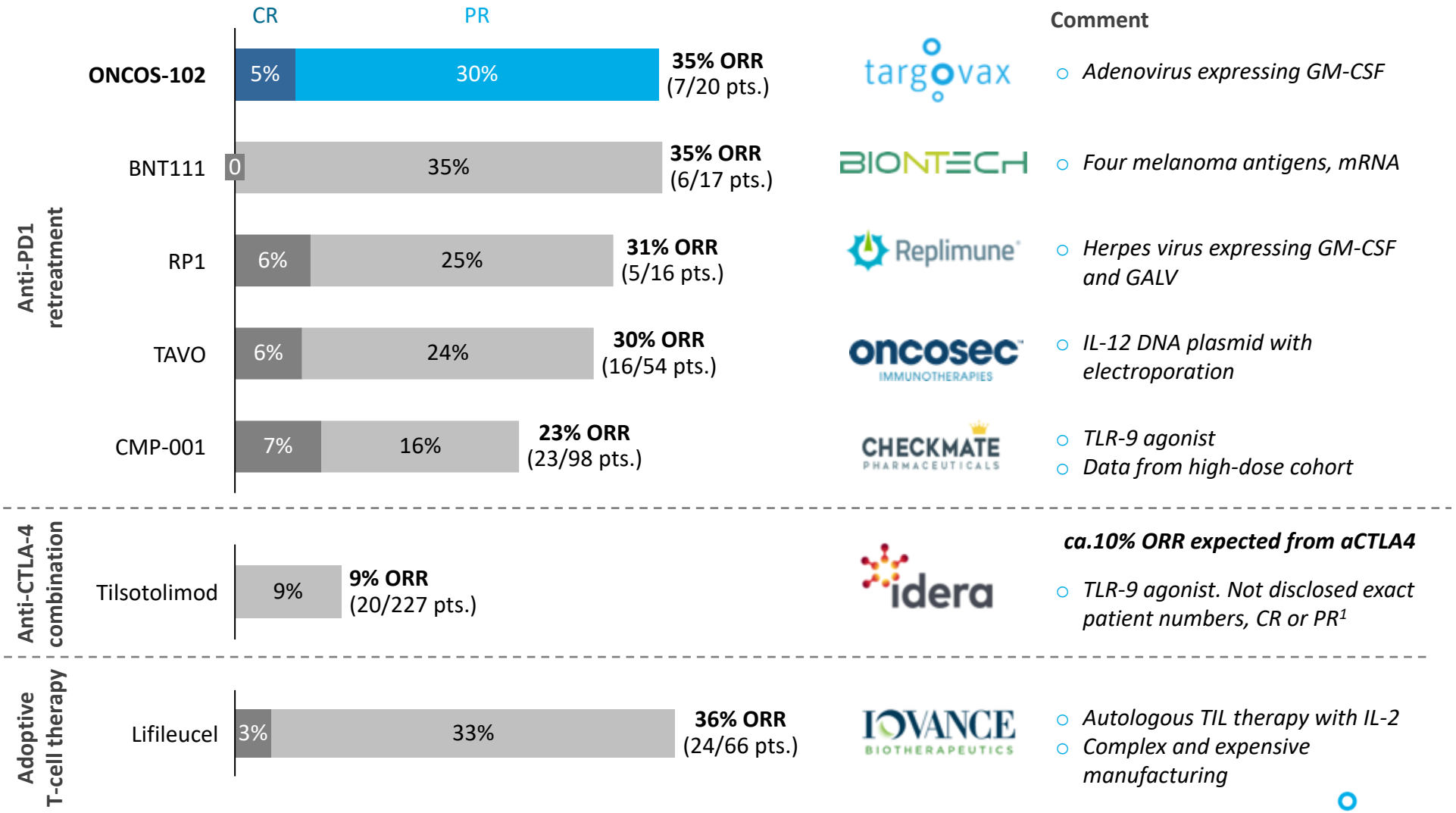
Melanoma
Mesothelioma
Colorectal

ONCOS-102 HAS DEMONSTRATED CLASS-LEADING EFFICACY IN PD1-REFRACTORY MELANOMA



Comment

- *Adenovirus expressing GM-CSF*
- *Four melanoma antigens, mRNA*
- *Herpes virus expressing GM-CSF and GALV*
- *IL-12 DNA plasmid with electroporation*
- *TLR-9 agonist*
- *Data from high-dose cohort*

ca.10% ORR expected from aCTLA4

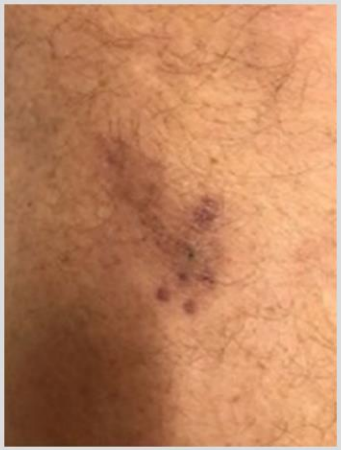
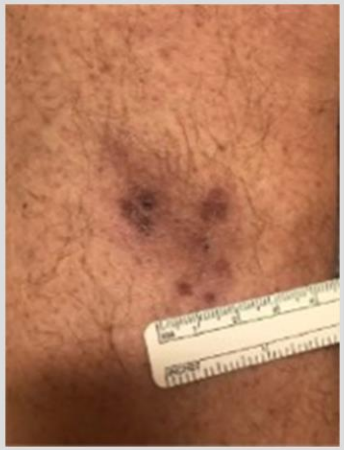
- *TLR-9 agonist. Not disclosed exact patient numbers, CR or PR[1]*

- *Autologous TIL therapy with IL-2*
- *Complex and expensive manufacturing*

Targovax market analysis, July 2021.
1 Assuming 454 evaluable patients at 1:1 ratio per Company Presentation

CASE EXAMPLE: PATIENT WITH COMPLETE RESPONSE

Tumor response, 1 of 1 injected lesion

Baseline	*Week 3*	*Week 9*	*Week 18*	*Week 27 (EoS)*
				
Progression on pembrolizumab	3x ONCOS-102 only (no pembrolizumab)	3x ONCOS-102 & 2x pembrolizumab	3x ONCOS-102 & 5x pembrolizumab	3x ONCOS-102 & 8x pembrolizumab

Patient characteristics

Tumor stage at enrolment:	**IIIb** T4a, N2b, M0	**Prior therapies:**	Surgery (x3) Ipilimumab Dabrafenib + Trametinib Pembrolizumab
RECIST 1.1:	**CR**, week 9-27		

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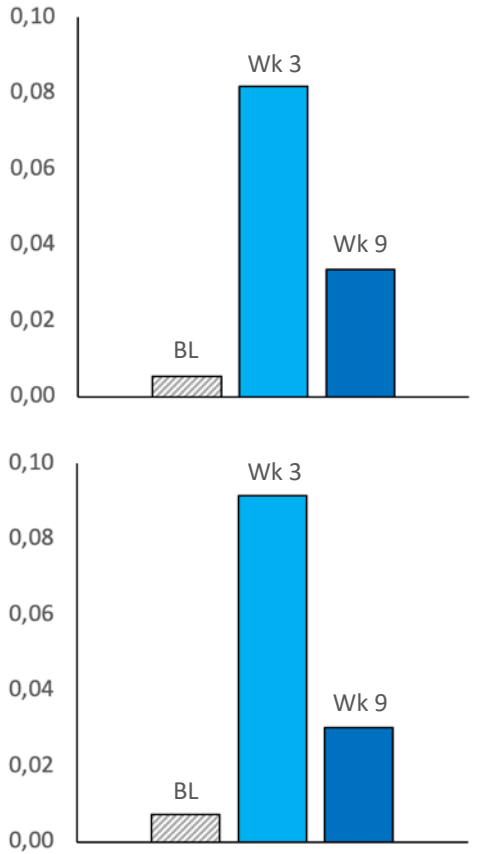
CASE EXAMPLE: PATIENT WITH COMPLETE RESPONSE TUMOR T-CELL INFILTRATION

T-cell infiltrate, 1 of 1 injected lesion

	Baseline	*Week 3*	*Week 9*	*Total level of T-cells*
CD8+ T-cells	Low CD8+ level at baseline	15x increase from baseline	CR, mainly necrotic tissue; some T-cells still present	
CD4+ T-cells*	Low CD4+ level at baseline	12x increase from baseline		



Progression on pembrolizumab | 3x ONCOS-102 only | 3x ONCOS-102 & 2x pembrolizumab

* FOXP3+ cells (T_{reg}) only present at very low level

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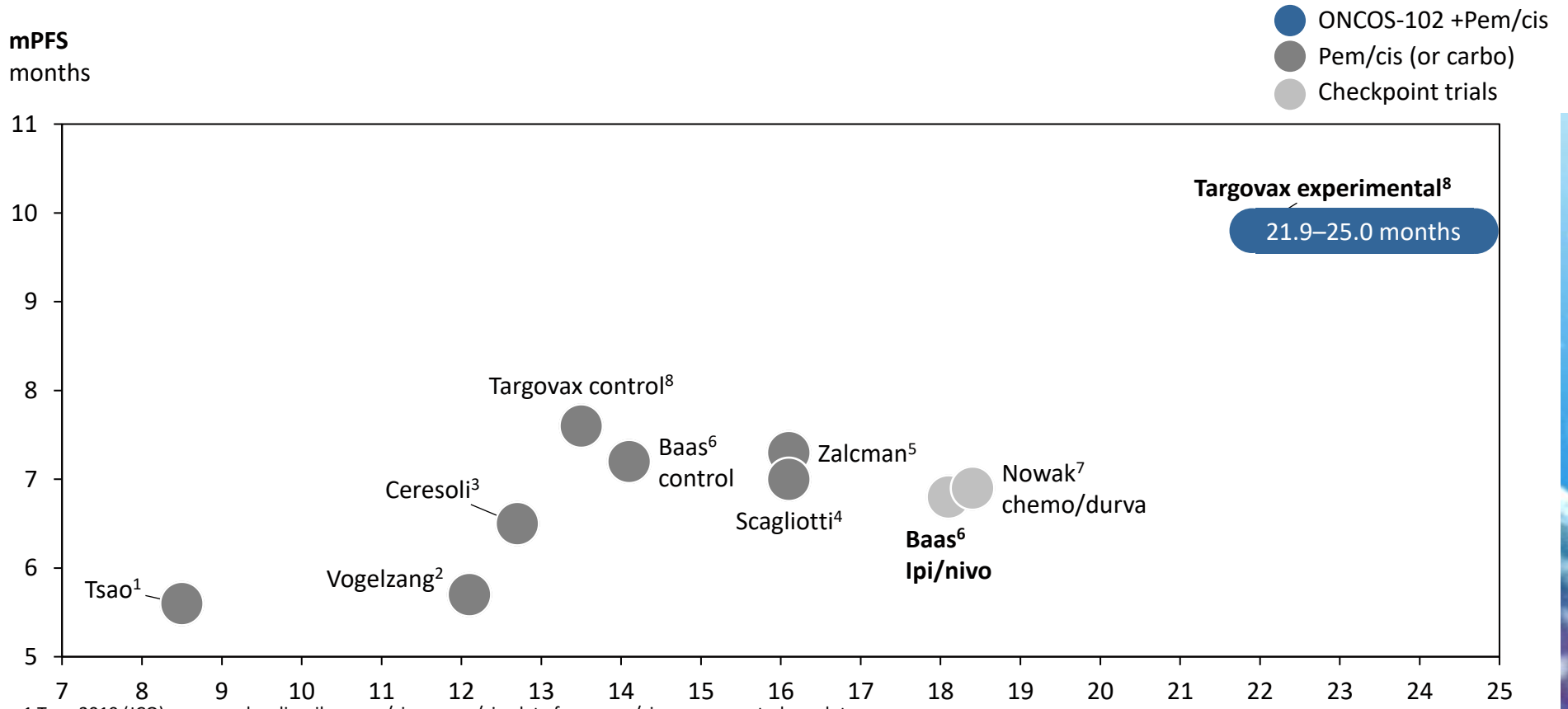
ONCOS-102 mOS OF 22-25 MONTHS IS THE BEST SURVIVAL DATA REPORTED IN 1L MESOTHELIOMA



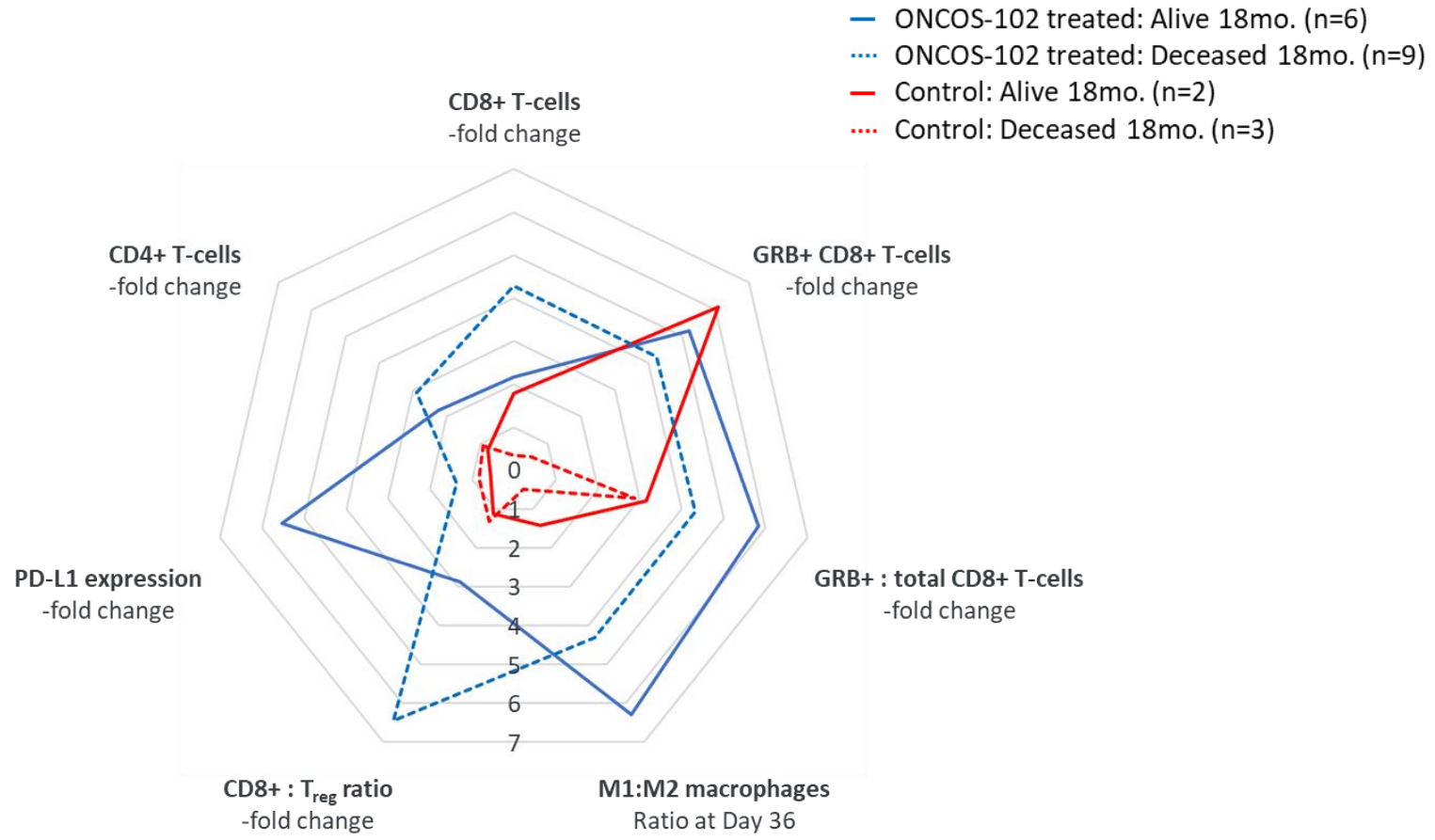
1 Tsao 2019 (JCO) compared cediranib + pem/cis vs pem/cis; data from pem/cis arm presented on plot
2 Vogelzang 2003 was the basis for FDA approval of pemetrexed.
3 Ceresoli 2006, Pemetrexed plus carboplatin
4 Scagliotti 2019 (The Lancet) compared nintedanib + pem/cis vs pem/cis; data from pem/cis arm presented on plot
5 Zalcman 2016 (The Lancet) compared bevacizumab + pem/cis vs pem/cis; data from pem/cis arm presented on plot.
6 Baas 2021 (The Lancet) CheckMate 743. Nivolumab + ipilimumab for two years vs pem/cis (or carboplatin) for six months.
7 Nowak 2020 (Lancet Oncology) Pem / cis (6 cycles) + durvalumab (12 months)
8 1L randomized patients mOS not final: Experimental group, 8 patients (3 censored). Control group, 6 patients (0 censored)

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

Melanoma
Mesothelioma
Colorectal

IMPROVED SURVIVAL OUTCOME ASSOCIATED WITH POWERFUL ONCOS-102 INDUCED IMMUNE ACTIVATION

Immuno-modulation in tumor tissue; Mesothelioma, Day 36 vs. baseline



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Melanoma
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MELANOMA PHASE 2 PLATFORM TRIAL TO EXPLORE MULTIPLE ONCOS-102 COMBINATIONS

Part 1 – run-in

1. **ONCOS-102** monotherapy

Randomize

2. **ONCOS-102 + PD1** combination

Randomize

3. **PD1** monotherapy

Assess contribution of components

Part 2 – multi-cohort extension

4. **ONCOS-102 + PD1 + aCTLA4**
5. **ONCOS-102 + (PD1) + co-stim**
6. **ONCOS-102 + …**

Several opportunities: *vaccine, bi-specifics, T-cell engagers, etc…*

- *Additional cohorts to explore novel combinations*
- *Aim to further boost response rates beyond 35% ORR*
- *Collaboration with partners – dialogues ongoing*

The cohorts can independently form the basis for subsequent registrational trial(s)

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CLINICAL AND PRECLINICAL PIPELINE

Product candidate	Preclinical	Phase 1	Phase 2	Phase 3	Next expected event
ONCOS-102	**Refractory Melanoma** Combination w/anti PD1				**1H 2022** First patient
	Mesothelioma Combination w/pemetrexed/cisplatin				**1H 2021** Survival update
	Metastatic Colorectal cancer Combination w/anti PDL1				**1H 2022** Clinical data
NextGen ONCOS vectors					*Preclinical data and selection of candidates*
Novel mutRAS concepts					*Preclinical data and selection of candidates*

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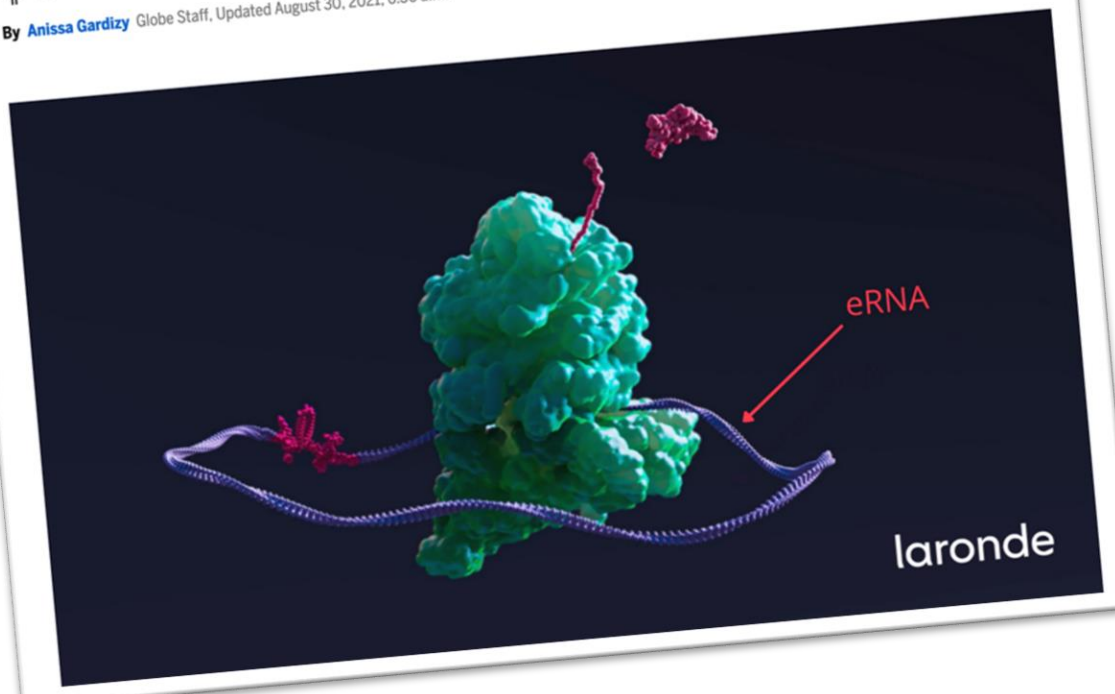
TWO RECENT LAUNCHES OF CIRCULAR RNA BIOTECHS HAVE ATTRACTED MEGA SERIES A ROUNDS

As RNA remains hot, Flagship's Laronde raises $440m for a new class of medicines

By Anissa Gardizy Globe Staff, Updated August 30, 2021, 6:30 a.m.



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Flagship Pioneering

FIERCE Biotech

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Biotech

Orna Therapeutics debuts with $100M, engineered circular RNA treatments to rival cell therapies

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News | Published: 02 September 2021

Startups set off new wave of mRNA therapeutics

Elie Dolgin

Nature Biotechnology **39**, 1029–1031 (2021) | Cite this article

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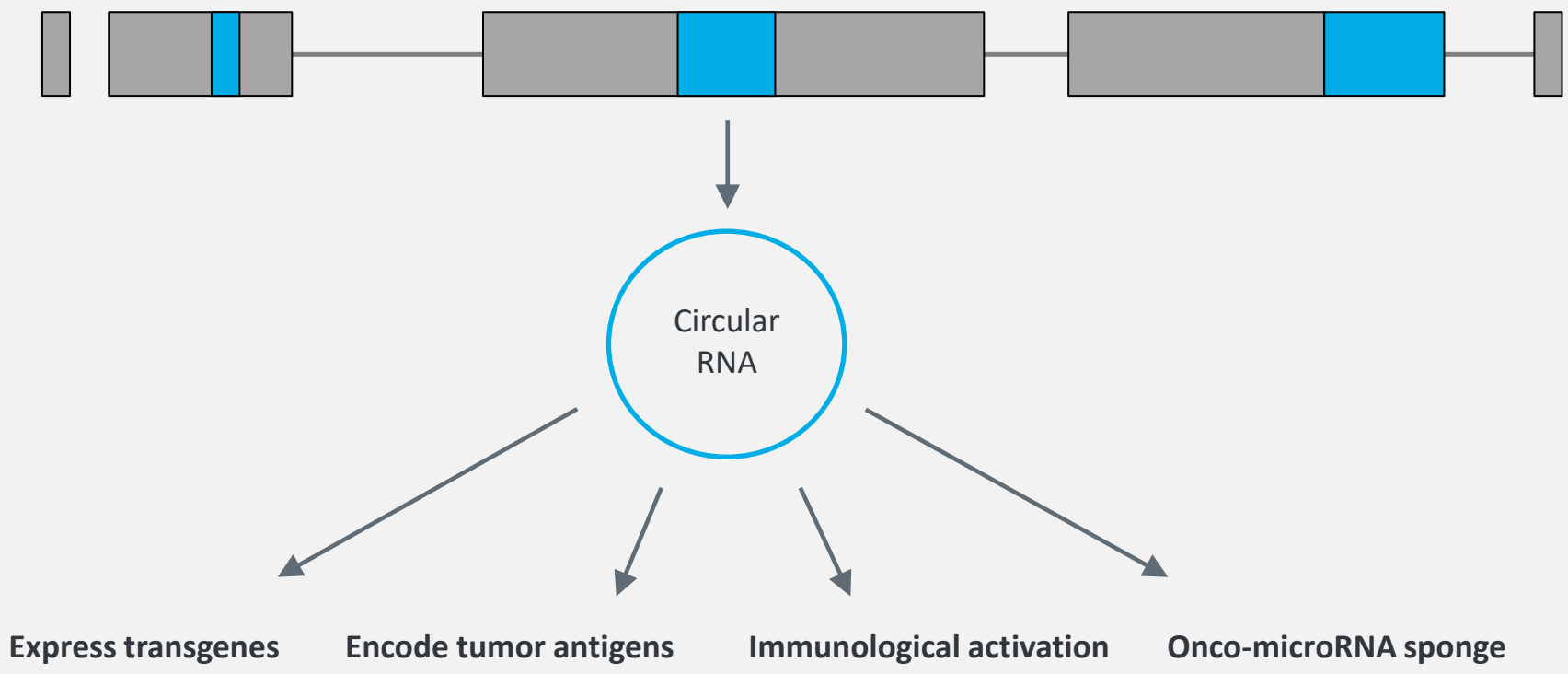
After the vaccine triumphs of Pfizer/BioNTech and Moderna, a raft of startups is developing mRNA, circular RNA and self-amplifying RNA therapeutics.

ONCOS PROVIDES AN IDEAL, CLINICALLY VALIDATED PLATFORM FOR CIRCULAR RNA

Novel ONCOS circular RNA vectors



Highly verstaile delivery system

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TARGOVAX OVERVIEW

ONCOS-102 is the best validated immune activator in aPD1 refractory melanoma

- ONCOS-102: Novel immune activator with clinical efficacy in several solid tumors in monotherapy and in combination with anti-PD1 and chemotherapy
- MoA confirmed in multiple indications: Broad local and systemic immune activation associated with clinical outcome
- Preparing a platform trial based on class-leading responses: 35% ORR in anti-PD1 refractory melanoma and 24 month mOS in mesothelioma
- Market Exclusivity: ONCOS-102 is protected by composition of matter and method of use patents until 2037, 3 orphan and 2 fast track FDA designations
- Innovative pipeline: Expanding ONCOS platform to deliver highly targeted payloads and novel circular RNA concepts