

We want to save patients with severe cancer and autoimmune diseases Clinical investigations with our lead antibody CANO4 to our proprietary target

## Göran Forsberg, CEO

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## Safe Harbour Statement

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## Cantargia at a glance



#### Unique immunotherapy antibody CAN04 in phase IIa clinical development

- Positive interim data set with response rates higher than historic data
- Further phase II milestones during 2020



#### Platform with many potential therapeutic areas

- IL1RAP found on most solid tumor forms and leukemia
- IL1RAP signalling (IL-1, IL-33 and IL-36) described in large number of autoimmune/inflammatory diseases



#### Vision of becoming an important part in future cancer treatments

• Combination therapy strategy based on synergies with established therapies



## Highly relevant research within clinically validated mechanisms Focus on opportunities with major unmet medical need



#### Robust patent portfolio – granted IP for therapeutic target IL1RAP and CAN04

 Global patent families on IL1RAP as antibody target in oncology until 2032 and CAN04 until 2035



## Listed on Nasdaq Stockholm's main list with over 5,000 shareholders and long term investors

- Market cap: SEK 1.6bn<sup>1</sup> (USD ~170m)
- Cash and cash equivalents: SEK 194.5m as of Q3 2019

#### Current owners (31 Dec 2019)

Sunstone	7.5%
4th AP fund	7.3%
Alecta	6.6%
1st AP fund	6.2%
Avanza Pension	5.5%
Öhman Bank S.A.	4.3%
2nd AP fund	3.0%
SEB S.A.	2.4%
Handelsbanken fonder	2.2%
Mats Invest AB	1.8%
Others	53.1%



## Cantargia – Opportunity to save lives and create value

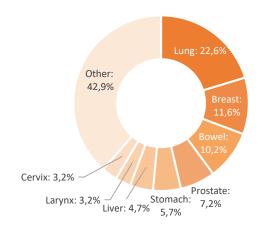
Project	Discovery phase	Preclinical phase	Phase I	Phase II	Phase III	Commercial phase
CANO4						
Non-small cell lung cancer		Chemo	combination	5		
Pancreatic cancer		Chemo	combination	5		
Non-small cell lung cancer Pancreatic cancer			Monotherap	V		
Solid tumors		ICI combination				
Other cancer forms						
CAN10						
Systemic sclerosis Myocarditis						
CANxx						
New opportunities with platform						

- ightarrow Potentially more effective treatment against novel target in clinically validated pathway
- ightarrow Right team and clear plan to position our projects and maximize value
- ightarrow First in class platform technology against novel target



## CANO4 addresses a huge market

Incidence, Globally 2018 Type of cancer:

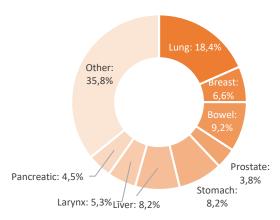


#### Incidence, Globally 2018 Region:

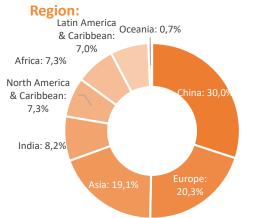
Africa: 5,8% Oceania: 1,4% India: 6,4% Caribbean: 7,8% North America: 13,2% China: 23,7% Europe: 23,4%

#### Mortality, Globally 2018

Type of cancer:



#### Mortality, Globally 2018



	Lung cancer	Pancreatic cancer
Incidence 2018 (globally)	2,093,876	458,918
Fraction of cancer incidence	13.0%	2.9%
Mortality 2018	1,761,007	432,242
Fraction of cancer mortality	19.9%	4.9%
5 year survival	18.6%	8.5%
Treatment	Surgery, Radiation, Chemotherapy, Immunotherapy	Chemotherapy, Surgery, Radiation

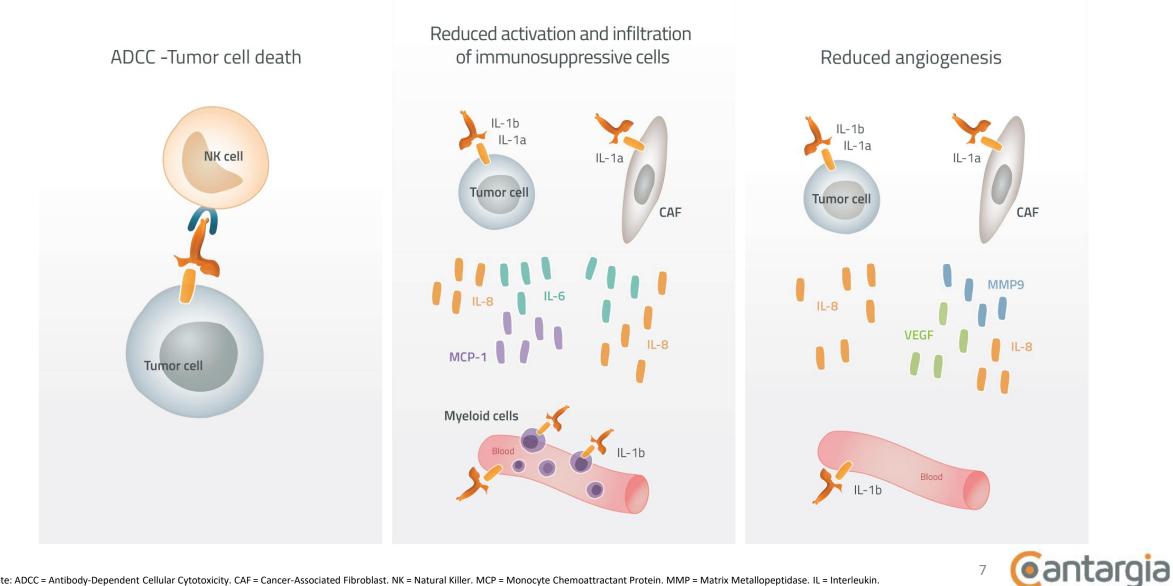
#### Significant unmet needs in lung and pancreatic cancer



## Lead antibody CAN04



## CAN04 – Mechanism of action



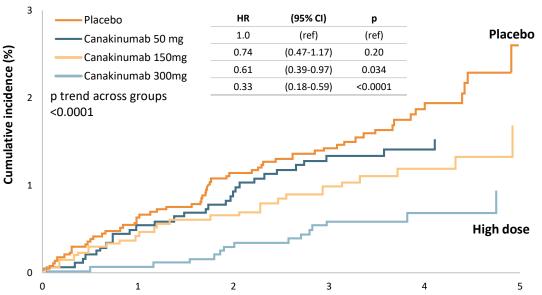
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Note: ADCC = Antibody-Dependent Cellular Cytotoxicity. CAF = Cancer-Associated Fibroblast. NK = Natural Killer. MCP = Monocyte Chemoattractant Protein. MMP = Matrix Metallopeptidase. IL = Interleukin. VEGF = Vascular Endothelial Growth Factor

# Validating study – Counteracting tumor inflammation

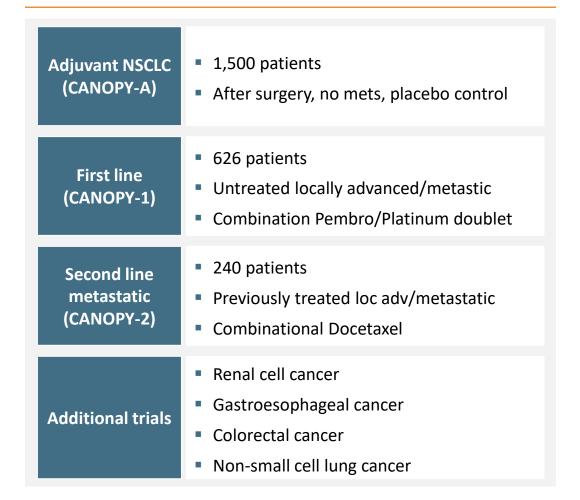
#### CANTOS trial (n=10,061)

- Canakinumab (Novartis)
- Reduced lung cancer incidence by 67% and death by 77%
- Reduced non-lung cancer death by 37%



- $ightarrow\,$  Clinical validation of IL-1 pathway
- $\rightarrow$  Dose/response
- $ightarrow\,$  Cantargia's CAN04 has broader MOA

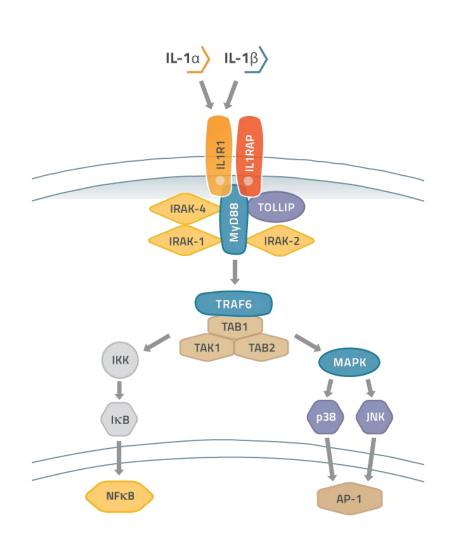
#### Canakinumab phase III trials



CANTOS data support CAN04 as well as broader IL1RAP platform activities



## CAN04 – Superior MoA against other IL-1 blocking approaches



Company	Compound	ΙL-1α	IL-1β	ADCC	Indication/dev phase
Cantargia	CAN04	++	++	++	<ul> <li>Pancreatic cancer, NSCLC phase IIa</li> </ul>
Xbiotech/ Janssen	Xilonix	++	-	+	<ul> <li>Autoimmunity, dermatology</li> <li>Pancreatic cancer, phase I</li> </ul>
Novartis	Canakinumab Gevokizumab	_	++	-	<ul><li>Autoimmunity, registered</li><li>NSCLC, phase III</li><li>Cancer comb, phase II</li></ul>
Buzzard	Isunakinra	++	++	-	Cancer phase I
SOBI	Kineret	++	++	-	Autoimmunity, reg
Regeneron	Rilonacept	++	++	-	Autoimmunity, reg
Cellerant	ADC	++	++	-	• Preclin
Use of IL1RAP a hematological o Valid until 20 Granted (EPC China)	Use of IL1RAP as target for solid tumors Valid until 2032 Granted (EPO*, Japan, USA, China) *divisional application opposed in Europe			<ul> <li>The product candidate CAN04</li> <li>Valid until 2035</li> <li>Granted (EPO, USA, China)</li> </ul>	

Optimization (Contraction of the contraction of

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#### Cantargia has strong IP and superior MoA in CAN04

## Positive phase IIa interim combination data

	Initiated	On therapy	Evaluable	CR/PR	SD	PD	NE
PDAC	10	7	7	4 <sup>1)</sup>		2 <sup>2)</sup>	1 <sup>2)</sup>
Historical				23%	27%	20%	30%
NSCLC	4	3	3	2 <sup>1)</sup>	1		
Historical				22-28%	18%	40%	<20%



"After I presented the CAN04 monotherapy data at ASCO 2019, the CANFOUR trial has advanced with the combination therapy. The initial results are very encouraging in non-small cell lung cancer (pretreated with checkpoint inhibitor) and pancreatic cancer and suggest that CAN04 could be a valuable contribution to improve the chemoterapy regimes in these diseases" *Prof Ahmad Awada, Institute Jules Bordet, Brussels, Belgium, Coordinating investigator CANFOUR-study* 

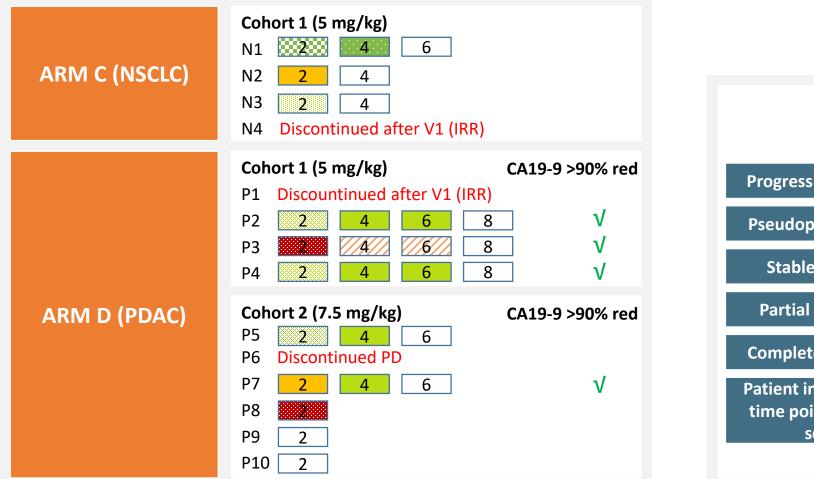
- → By adding CAN04 response rates are higher than historical data using these standard first line chemotherapies alone
- → 4 of 7 evaluable patients with metastatic pancreatic cancer (PDAC) showed objective response. 1 additional patient showed pseudoprogression. Pronounced effect of biomarker CA19-9
- → 2 of 3 evaluable patients with metastatic non-small cell lung cancer (NSCLC) showed objective response including 1 complete response
- → No major side effects were observed apart from those expected with chemotherapy or CAN04 alone

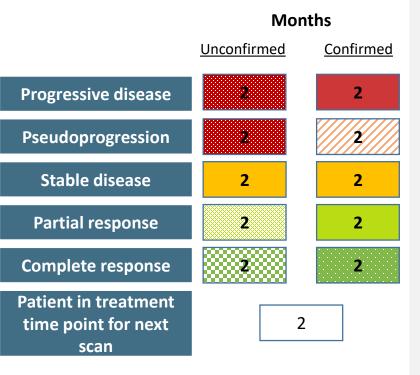
#### Strong tumor shrinkage in majority of patients



Note: 1) All patients except 1 PDAC and 1 NSCLC have responses confirmed on second scan. 3 of 4 PDAC patients with objective response has a sustained decrease of >90 % of CA19-9. In NSCLC, 1 patient has a confirmed complete response (CR). 2) 1 patient has ongoing tumor shrinkage after initial progression and a strong reduction in CA19-9. 1 patient terminated after rapid clinical progression without CT-scan

## Combination therapy – Response assessments

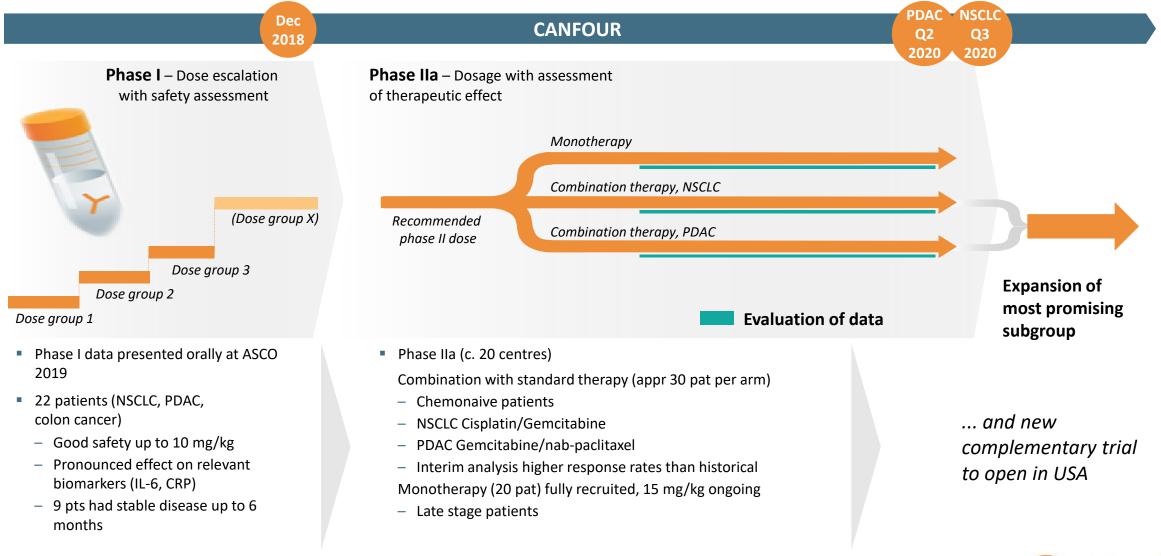




10 out of 14 are still on therapy and doing well



## CAN04 – CANFOUR clinical trial



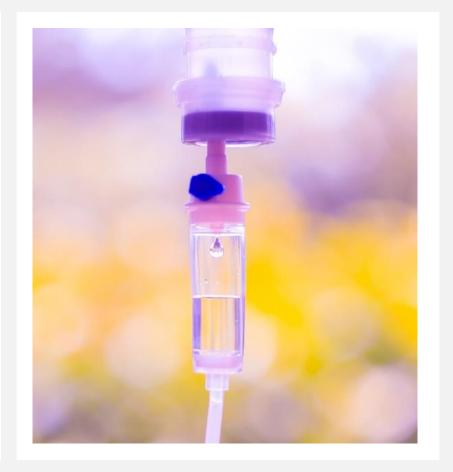
#### Generation of data instrumental for next phase of development



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## **Chemotherapy resistance**

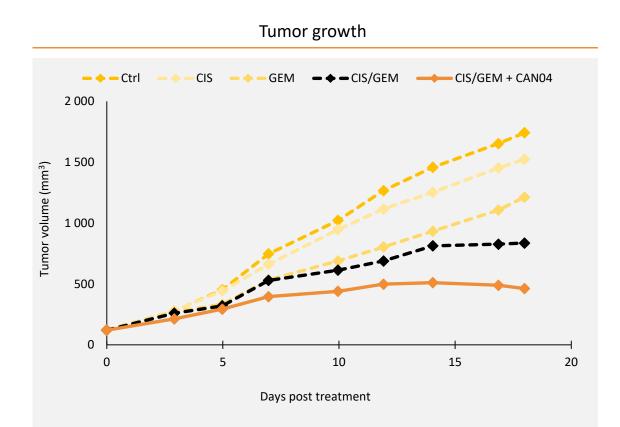
- $\rightarrow\,$  Most chemotherapies induce chemoresistance already after a few months of therapy
- $\rightarrow\,$  Several recent studies show chemotherapy induction of IL-1, leading to resistance
- $\rightarrow\,$  Blocking IL-1 signalling counteracts chemoresistance in preclinical models
- $\rightarrow\,$  High blood levels of inflammatory cytokines IL-1 and IL-6 leads to poor gemcitabine efficacy in patients
- ightarrow IL-1 mediated chemoresistance for several classes of chemotherapy
  - ightarrow Gemcitabine
  - ightarrow 5FU
  - $ightarrow \,$  Platinum based chemotherapy



## Several lines of evidence suggest CAN04 counteract chemoresistance



# Targeting IL1RAP allows synergistic effects with Cisplatin/Gemcitabine

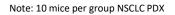


→ CAN04 increases antitumor effects of platinum compounds (cisplatin, carboplatin, oxaliplatin)

# $\rightarrow$ CAN04 counteracts toxicity from platinum compounds

Oligination (Construction)

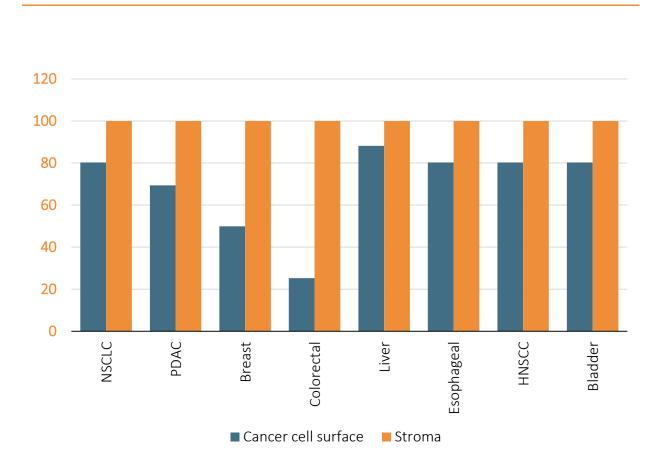




## CAN04 oncology expansion



## IL1RAP in several cancer with high medical need



IL1RAP

# Cantargia<br/>founded<br/>based on• Discovery of IL1RAP on cancer cells<br/>• Antibodies against IL1RAP – antitumor effects<br/>• IP on antibody therapy against IL1RAPPrimary<br/>indications• Non-small cell lung cancer – NSCLC<br/>• Pancreatic cancer – PDAC

- $\rightarrow\,$  Biomarker studies ongoing, identify patients most likely to respond
- $\rightarrow~$  Opportunity to expand development in additional cancer forms with high unmet medical need

### CAN04 development can be expanded to additional indications onwards <sup>16</sup>



## IL1RAP and PD-1 blockade – Rationale for combination study

Chronic tumor inflammation and the tumor microenvironment are immune suppressive counteract PD-1 blockade

- Myeloid suppressive cells, such as tumor-associated macrophages (TAMs) or myeloid-derived suppressor cells (MDSCs) are key cells in PD-1 resistance and express IL1RAP and are stimulated by IL-1, these cells counteracts PD-1 blockade
- IL-1 upregulate PD-L1 on macrophages and induce downstream factors, such as IL-6, that also contribute to immune suppression in the TME
- IL-1b blockade has been shown to break tolerance to anti-PD-1 in a model for TNBC

Novartis is exploring PD-1 combinations with canakinumab in two Phase III trials

- PD-1 antibodies fastest growing segment in cancer therapy
- Strong rationale for combining CAN04 and PD-1 antibodies



## US phase I clinical trial

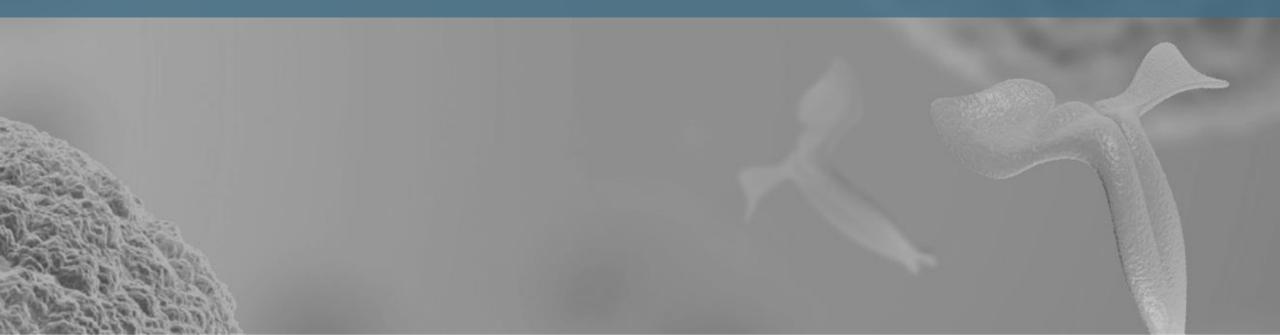
- ightarrow PreIND meeting held, IND submission Jan 2020
- $\rightarrow$  Combination with checkpoint inhibitor in patients that no longer respond to PD1/PDL-1 therapy
- $\rightarrow\,$  Primary endpoint safety, secondary endpoints include biomarkers and efficacy
- ightarrow Indications include NSCLC, HNSCC and bladder cancer (18 patients)
- ightarrow Strong US centers, Coord investigator Prof Roger Cohen, UPenn



Trial designed to advance CAN04 outside chemotherapy combinations <sup>18</sup>



## Untapped possibilities in autoimmune diseases

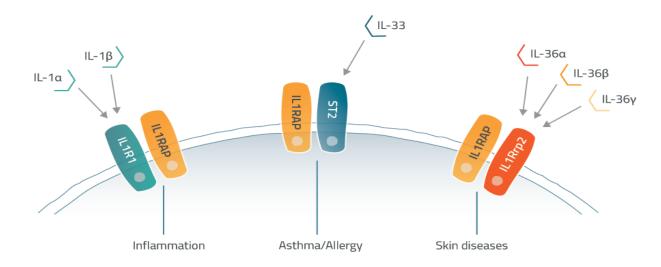


## IL1RAP platform to treat serious diseases

ightarrow Three different systems signal through IL1RAP

ightarrow These systems contribute to various inflammatory diseases

ightarrow Can be blocked by Cantargia's antibodies against IL1RAP



Unique opportunity by blocking several disease inducing cytokines



## CAN10 – New development project

- ightarrow IL1RAP binding antibody potently blocking IL-1, IL-33 and IL-36
- ightarrow Unique anti-inflammatory activity observed in mouse model
- → Development focusing on unmet medical need in systemic sclerosis and myocarditis. Disease selection in collaboration with experts based on scientific rational, medical need, development opportunity and competition
- ightarrow Clinical trials start late 2021



#### **Unique opportunity for CAN10 identified in life-threatening diseases**



## CAN10 – Systemic sclerosis and myocarditis

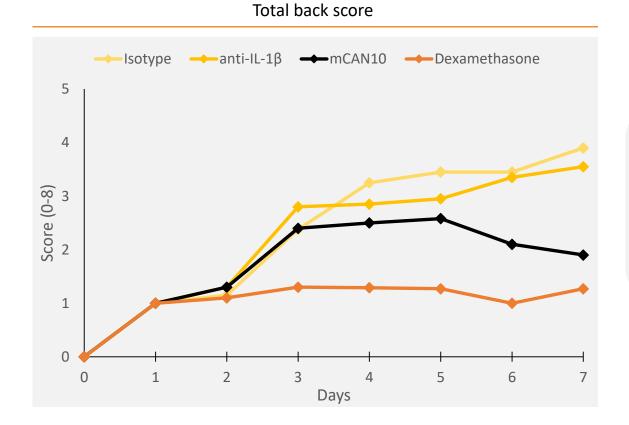
CAN10 method	<ul> <li>→ Development process of CAN10 has included independent analysis of potential to treat c. 150 autoimmune and inflammatory diseases</li> <li>→ Analysis included statements from key opinion leaders regarding e.g. scientific rationale of the blockade of three inflammatory cytokines, medical need, development opportunities and competition</li> </ul>					
CAN10	Systemic sclerosis→Chronic, autoimmune connective tissue disorder characterized by inflammation and fibrosis of the skin and internal organs (e.g., lungs, kidneys, heart, and gastrointestinal tract)→The estimated annual incidence is about 4.5 per 100,000 in North America and 1.8 per 100,000 in Europe→The leading cause of death – interstitial lung disease and the unmet need is in particularly high 					
focus	Myocarditis <ul> <li>Inflammation of muscular tissues of the heart that arise from different etiologies, including genetic and infectious mechanisms that are not well characterized</li> <li>Characterized by initial acute inflammation that can progress to subacute and chronic stages resulting in tissue remodeling, fibrosis, and loss of myocardium architecture and contractile function</li> <li>The estimated incidence of myocarditis is approximately 22 per 100,000 and the disease accounts for approximately 0.6 per 100,000 deaths annually worldwide</li> </ul>					



#### **CAN10 focused on major unmet medical need**



## CAN10 counteract inflammation in disease model



 $\rightarrow$  Mechanistic proof of concept for IL1RAP blockade in inflammatory driven psoriasis model

eipretne

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 $\rightarrow$  Effect not dependent on IL-1ß blockade

#### **CAN10** has unique anti-inflammatory properties

## Milestones and summary



# Significant value inflection points

## Newsflow in 2020

#### CAN04

- ightarrow Checkpoint combination clinical trial, IND submission and start
- ightarrow Phase IIa combination results in PDAC and NSCLC
- ightarrow Phase IIa monotherapy biomarker/biopsy results
- ightarrow Phase IIa expansion of combination therapy

#### **CAN10**

- ightarrow Preclin in progress
- ightarrow Toxicology
- ightarrow Production development



## 25 **(eantargia**

## Significant data to secure newsflow

## Cantargia at a glance

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Further phase II milestones during 2020

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#### Vision of becoming an important part in future cancer treatments

Combination therapy strategy based on synergies with established therapies

Unique immunotherapy antibody CAN04 in phase IIa clinical development
Positive interim data set with response rates higher than historic data



#### Highly relevant research within clinically validated mechanisms

Focus on opportunities with major unmet medical need



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