

Harnessing the power of nature to improve lives

**BIO International - June 2023** 

E: Richard.Godfrey@qbiotics.com W: qbiotics.com

## Disclaimer

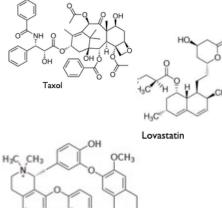
This presentation has been prepared by QBiotics Group Limited ACN 617 596 139 (QBiotics or the Company) and contains summary information about QBiotics and the business conducted by it as at the date of this presentation. The information in this presentation is for general purposes only, does not purport to be complete or comprise all information required by shareholders or investors to make an informed decision on any investment in QBiotics. The information contained in this presentation is not intended to be an offer for subscription, invitation or recommendation with respect to shares of QBiotics in any jurisdiction, including the United States. In preparing this presentation, the Company did not take into account the investment objectives, financial situation and particular needs of any particular investor. Further advice should be obtained from a professional investment adviser before taking any action on any information dealt with in the presentation. Those acting upon any information without advice do so entirely at their own risk. Whilst this presentation is based on information from sources which are considered reliable, no representation or warranty, express or implied, is made or given by or on behalf of the Company, any of its directors, or any other person about the accuracy, completeness or fairness of the information or opinions contained in this presentation. No responsibility or liability is accepted by any of them for that information or those opinions or for any errors, omissions, misstatements (negligent or otherwise) or for any communication written or otherwise, contained or referred to in this presentation. Neither the Company nor any of its directors, officers, employees, advisers, associated persons or subsidiaries are liable for any direct, indirect or consequential loss or damage suffered by any person as a result of relying upon any statement in this presentation or any document supplied with this presentation, or by any future communications in connection with those documents and all of those losses and damages are expressly disclaimed. Any opinions expressed reflect the Company's position at the date of this presentation and are subject to change. This presentation may contain forward-looking statements concerning the Company's business, operations, financial performance and condition as well as the Company's plans, objectives and expectations for its business, operations, financial performance and condition. Any statements that are not of historical facts may be deemed to be forward-looking statements. These statements are based on current expectations, estimates, forecasts and projections about the Company's business and the industry in which the Company operates and management's beliefs and assumptions. These forward-looking statements are not guarantees of future performance or development and involve known and unknown risks, uncertainties, assumptions and other factors that are in some cases beyond the Company's control. Unless required by law, the Company does not intend to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise. As a result, any or all of the Company's forward-looking statements in this presentation may turn out to be inaccurate.

QBiotics – a	at a glance			
		<image/> <section-header></section-header>		
EcoLogic™	Focused Strategy	Regulatory & Commercial validation	Human Oncology	Organisation
<ul> <li>Translating ecological knowledge into novel therapeutics</li> <li>Megadiverse tropical rainforest</li> <li>Phenotypic screening</li> <li>Unique Molecular Scaffolds</li> <li>Unencumbered IP</li> <li>Parallel develop therapeutics for human &amp; companion animal markets</li> </ul>	<ul> <li><b>Oncology</b> <ul> <li>Tigilanol tiglate IT</li> <li>Solid tumors</li> </ul> </li> <li><b>Wound healing</b> <ul> <li>EBC-1013 topical gel</li> <li>Venous leg ulcers</li> <li>Equine wounds</li> </ul> </li> <li>Strong patent position for both programs</li> <li>Early stage programs: <ul> <li>Antibiotics</li> <li>Anti-inflammatory</li> </ul> </li> </ul>	<ul> <li>STELFONTA® (tigilanol tiglate) registered and marketed for treatment of canine mast cell tumors</li> <li>75% CR rate in FDA registration trial</li> <li>&gt;15,000 dogs treated in EU, USA, UK and Australia</li> <li>Robust compliant supply chain</li> </ul>	<ul> <li>Phase II trial in patients with head and neck cancer (QB46C-H08)</li> <li>Phase II trial in patients with soft tissue sarcoma (QB46C-H07)</li> <li>Parallel translational research program</li> </ul>	<ul> <li>Strong scientific knowledge</li> <li>In-house veterinary capabilities</li> <li>Secure raw material growing facilities</li> <li>Revenue and strong Balance sheet</li> <li>Seeking partners to accelerate development &amp; commercialization</li> </ul>

## **EcoLogic**<sup>TM</sup> Translating ecological knowledge into novel therapeutics

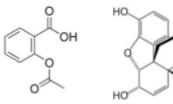
### Why go back to nature as a source of new drug scaffolds?

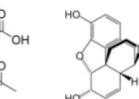
Produced in nature = demonstrated compatibility with the cellular environment





Aspirin





Morphine

- 45% marketed pharmaceuticals are based on small molecules discovered in nature
- Remarkable chemical diversity unmatched by synthetic chemistry
- Selected by evolution to engage . protein binding sites, for interactions with membranes, and to function at ambient temperatures:
- Features which suggest high potential for effective novel drug compounds



### Why Tropical Rain Forests?

- Contain more than half of the world's species
- Complex interactions between species and with the physical environment drives chemical innovation in the quest for survival
- EcoLogic<sup>™</sup> employs an understanding of rainforest ecology to help decode the chemical language of the forest and guide our search for new therapeutics for human and animal health
- Collection ownership ensured by agreements that are in line with the **UN** Convention on Biological **Diversity & the Nagoya Protocol**

## R&D Pipeline of novel therapeutics for human and veterinary

	Therapeutic Lead Area Mol	Lead	Trial ID	Indication	Stage of Development				
		Molecule			Pre-clinical	Phase I	Phase II	Phase III	Registration / Marketing
Human	Tigilan Oncology tiglate		QB46C-H03 ACTRN12619001407189	Head & Neck Cancer	Phase I/IIa repo	rting			
		Tigilanol tiglate	QB46C-H08 NCT05608876	Head & Neck cancer	Phase II recruiti	ng			
			QB46C-H07 NCT05755113	Soft Tissue Sarcoma	Phase II pilot re	cruiting			
	Wounds EBC-1013	EDC 1012		Venous Leg Ulcers	Phase I/II				
		EBC-1013		Other Wounds	Veterinary mod	els			
Veterinary			Species & Indication			Clin	ical		Registration / marketing
	Oncology Tigilanol tiglate	Canine - Mast Cell Tumo	r	STELFONTA <sup>®</sup> – r	narketed EU, UK	, USA and Austra	lia		
ter		tiglate	Canine - Soft Tissue Sarc	oma & Oral melanoma	STELFONTA <sup>®</sup> – F	hase IV trials			
≥ S	Ve		Equine - Sarcoid & melar	noma	STELFONTA <sup>®</sup> – P	hase IV trials			
	Wounds	EBC-1013	Equine & Canine - Acute/Chronic wounds		Veterinary clinic	cal case studies			
л. У			Target		Collection	Lead Optimis	sation		Initial Pre-clinical
Discovery	Antibiotics		Multiple Resistant Organisms						
SC	Anti-inflammatories Dermatology								

5

# Human Oncology

tigilanol tiglate



# tigilanol tiglate

Potential in early and late settings

Effective against a range of solid tumors – 'pantumor potential'

Regulatory and Commercial validation in veterinary market

**STELFONTA®** (tigilanol tiglate) registered and marketed for treatment of canine mast cell tumors in USA, UK, EU & Australia as **a 1L alternative to surgery** 

Full tumor destruction (75% CR) from a single IT injection

Partnered with Virbac, global animal health company

Robust, compliant & commercial global supply chain is well established

Single injection, rapidly destroys tumors and induces systemic immunity via

**Substantial pre-clinical** 

evidence

- Tumor vascular disruption & tumor cell oncolysis
- Immunogenic cell death
- Induces anenestic responses

Substantial improvement in overall survival compared to standard of care therapies

Strong patent portfolio

Phase II trials underway

Phase I - Well tolerated;

Clinically relevant activity

observed in 9 tumor types

healing for therapeutic and

Head and neck cancer

Soft tissue sarcoma

Impressive rapid wound

cosmetic benefits

Phase II

minimal AEs

**Phase I study complete** 

Significant Growth Opportunities

Very effective & well tolerated 'pan-tumor' small molecule Potential for development in multiple cancers:

- Monotherapy
- In combination with ICI, chemotherapy etc
- Neoadjuvant
- Alternative or adjunct to surgery

Seeking license or collaboration to further develop tigilanol tiglate - deal agnostic

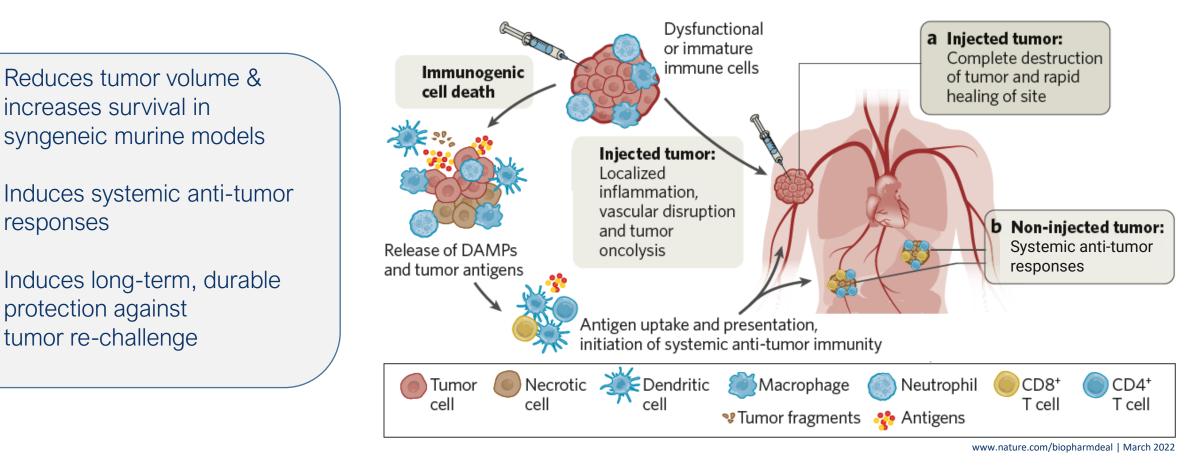
Tigilanol tiglate acts locally through tumor cell killing and vascular disruption, and systemically through anti-tumor immunity

 $\checkmark$ 

 $(\bigcirc)$ 

 $\bigcirc$ 

responses



# Clinical Development Path for tigilanol tiglate

#### **Pre-clinical**

- ✓ Single agent efficacy in range solid tumors
- ✓ Single agent efficacy in metastatic models
- Substantial improvement in overall survival compared to standard of care therapies
  - ✓ Combines with anti-PD1 in CPI refractory metastatic models
  - ✓ Synergises with chemotherapy
  - ✓ Synergises with radiotherapy

#### Veterinary

- ✓ STELFONTA<sup>®</sup> (tigilanol tiglate) registered and marketed for treatment of canine mast cell tumors
- ✓ 75% CR rate in FDA registration trial
- ✓ >15,000 dogs treated in EU, USA, UK and Australia
- ✓ Robust compliant supply chain
- ✓ Canine more relevant to human cancers spontaneous tumors, relevant histology & genetics & relevant response to treatment

#### Phase I complete

#### Design:

Open-label, dose escalation (3+3) of a single intra-tumoral injection of tigilanol tiglate in 22 patients

#### Population:

Accessible cutaneous, subcutaneous or nodal solid tumors refractory to conventional therapy, or patient choice

Primary objective: Safety and tolerability Secondary objectives: PK, injected tumor response (RECIST 1.1) at 21 days post injection

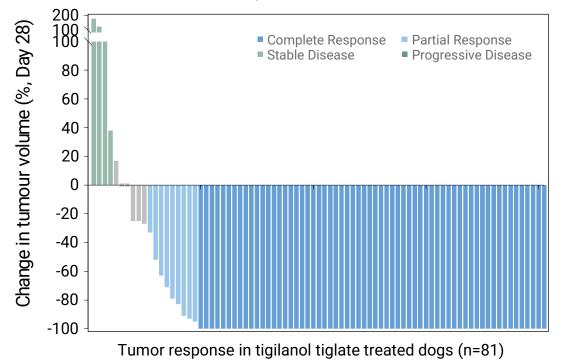
**Dose:** 0.06 to 3.6 mg/m<sup>2</sup> BSA

- ✓ Nine tumor types
- ✓ Safe and well tolerated
- ✓ No MTD but optimal dose identified
- Clinically relevant response in 20/22 pts
- ✓ 4 CR, 3PR, 14 SD
- At optimal dose 4/6 CRs, 6/6 local tumor control (CR/PR/SD)

Phase IIa on going				
Head an	Sarcoma			
Squamous cell carcinoma (HNSCC)	Solid malignancies	<b>Soft tissue</b> (various stages)		
Advanced & locally advanced disease with few options	Advanced & locally advanced disease with few options	Heterogeneous disease with few options		
ACTRN12619001407189	NCT05608876	NCT05755113		
QB46C-H03 Phase I/II Exploratory	QB46C-H08 Phase II	QB46C-H07 Phase II Exploratory		
Reporting	Recruiting	Recruiting		
Ringhom Canter Centre	The ROYAL MARSDEN NHS Foundation Trust	Memorial Sloan Kettering Cancer Center		
Guy's and St Thomas'				
	Ringhorn Centre			

## US FDA-CVM Registration trial for tigilanol tiglate A single treatment induces Complete Responses in 75% canine mast cell tumors

### Tigilanol tiglate monotherapy – US FDA-registration trial Optimal Dose Rate



 $\checkmark$  75% CR with a single IT treatment (p<0.0001 vs sham control)<sup>1</sup>

### ✓ Objective Tumor Response Rate (CR/PR) of 80%

✓ 88% CR with a second treatment for partial responders. No tumor recurrence in 89% of evaluable cases (n=57) at 12 months<sup>2</sup>

### Clinical case from US FDA-CVM registration trial



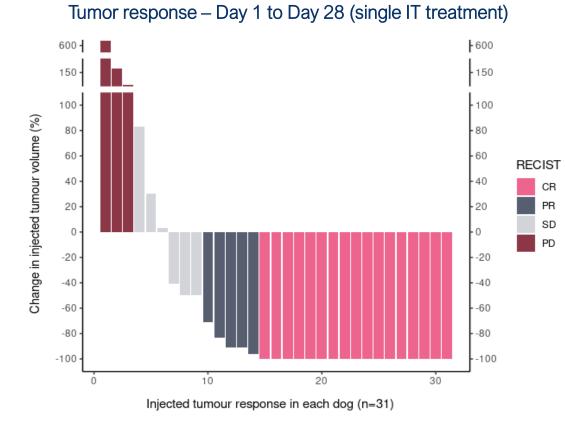
Day 7: tumor destroyed (CR)

Day 28: Site healed

- 1. Study Report PN1894. Published by De Ridder T. et al (2020).
- 2. Jones et al., 2021



## Canine Clinical Trial of Soft Tissue Sarcoma (STS) A single treatment induces Complete Responses in 50% STS



✓ 50% CR with a single treatment of tigilanol tiglate (p=0.0021 vs sham control)<sup>1</sup>

✓ Objective Tumor Response Rate (CR/PR) of 61.9%<sup>2</sup>

✓ No tumor recurrence in 89% of evaluable cases (n=9) that had CR at 84 days post-treatment.

✓ Rapid and clean wound healing

- 1. Study Report QB46C-C12 (PN1956). Waterfall plot includes sham treated dogs treated with tigilanol tiglate at Day 30, and then evaluated at Day 28 post injection.
- 2. RECIST v1.1 applied to injected Target tumor<sup>2</sup>.

[11)

## Canine Case Study Single treatment Led to a Complete Response in Recurrent STS

### Case ID: 35-001 7 yr, 9 mo Beagle

### **Histogenesis:**

Grade 1 Soft tissue sarcoma that had recurred following surgery eight months prior

### **Treatment:**

Tumour Vol: 3,600 mm<sup>3</sup> Single IT injection

**Result:** Complete Response



Pre: Soft tissue sarcoma above left eye



Day 1: Swelling and necrosis



Day 7: Tumor destroyed



Day 14: Wound healing



Day 84: No recurrence



## Canine Case Study Single treatment Led to a Complete Response in Oral Melanoma

### 12 yo German Shepherd

Histogenesis: Oral melanoma

**Treatment:** Single IT injection

**Result:** Complete Response



Pretreatment



Day 17: Tumor necrosis almost complete, wound healing well advanced



Day 4: Tumor necrosis evident

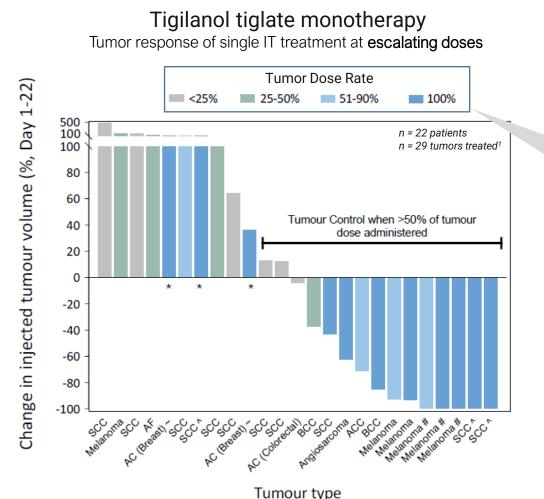


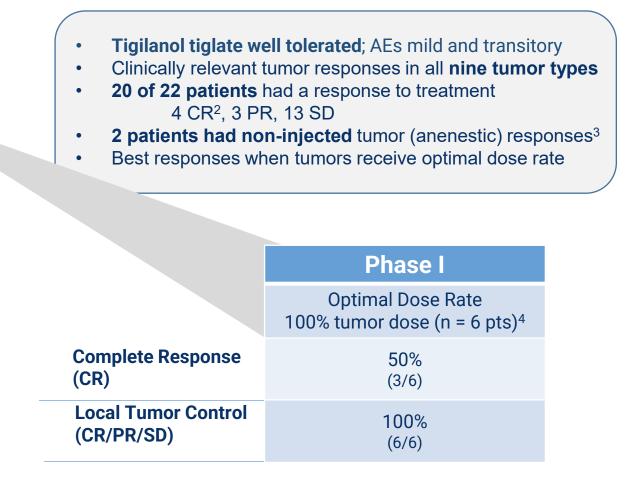
Day 210: Site completely healed\* no tumor regrowth

\* Day 210 was when owner returned dog to vet; site healed well before this

QBiotics Group

## Phase I (QB46C-H01) Tigilanol tiglate has shown remarkable clinically relevant responses with a single injection





^, \*, #, ~ = two or three tumors treated per patient

14

• = highly ulcerated tumor and leakage of tigilanol tiglate, so full treatment rate not administered

Tumor control reported in Squamous Cell Carcinoma (SCC), Melanoma (BRAF), Basal Cell Carcinoma, Angiosarcoma, Atypical Fibroxanthoma (AF), Fibrosarcoma, Breast and Colorectal Adenocarcinoma (AC), and Adenoid Cystic Carcinoma (ACC)

<sup>1</sup>Four tumors not assessable.

<sup>2</sup>Two patients reported CR's post-study by <u>Panizza et al., 2019. EBioMedicine</u> <sup>3</sup> <u>Panizza et al., 2019. EBioMedicine</u>

<sup>4</sup>Best RECIST response of injected tumor by calipers from Day 1.

# Soft Tissue Sarcoma:

Complete response with a single injection of tigilanol tiglate<sup>1</sup>

- Patient had failed surgery
- Difficult to treat lesion, patient initially advised a total rhinectomy

### Pt 407 - Soft Tissue Sarcoma (Angiosarcoma)

- Tumor size: 5,141 mm<sup>3</sup>
- Single IT treatment at optimal dose rate



Pretreatment



Day 2: vascular disruption and haemorrhagic necrosis of tumors



Day 15: tumor necrosis continues



Day 43: Complete Response2

- ✓ Complete Response & Organ Preservation
- ✓ No residual tumor at 12 weeks (punch biopsy)<sup>1</sup>
- ✓ Patient disease free (CT scan) at 25 months and clinically disease free at 30.5 months<sup>1</sup>
- ✓ **Tigilanol tiglate well tolerated**; AEs mild and transitory

# Squamous Cell Carcinoma:

Complete response with a single injection of tigilanol tiglate<sup>1</sup>

Patient had failed earlier radiotherapy and chemotherapy treatments<sup>1</sup>



Complete Response at Day 15, with no scarring
 Tigilanol tiglate well tolerated; AEs mild and transitory

Phase I Study Report QB46C-H01 and published by Panizza et al., 2019. EBioMedicine

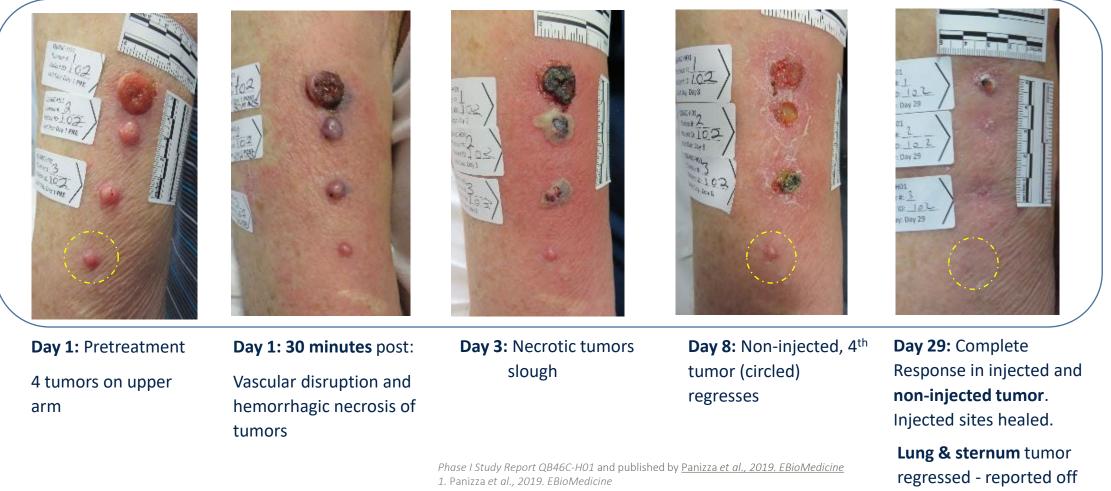
<sup>1</sup>Patient had received prior treatment with radiotherapy, cetuximab, cisplatin and 5FU (> 7 months prior to treatment with tigilanol tiglate)

# Metastatic melanoma

## Complete response in injected and non-injected tumors with a single dose of tigilanol tiglate

#### Pt 102 - Multiple melanoma

Single IT treatment into top 3 tumors (1,200 mm<sup>3</sup>) at optimal dose rate 4<sup>th</sup> tumor (circled) not treated



\*. Patient received prior treatment with RT and pembrolizumab 2 months prior to administration of tigilanol tiglate

study<sup>1</sup>

A Phase II, open label, single arm study (QB46C-H08) to assess the efficacy of intratumoral tigilanol tiglate in various head and neck solid malignancies (NCT05608876)

Head and neck cancer is the **TH most common** cancer worldwide

~932,000 new cases each year<sup>1</sup>

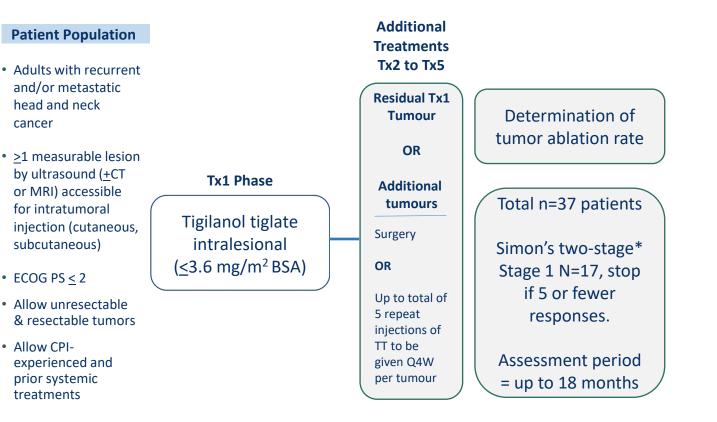


## Unmet need

Locally advanced Recurrent/Metastatic disease



>108,000 patients unresectable head and neck tumors



#### **Primary Endpoint**

Tumor ablation rate

#### **Secondary Endpoints**

- AEs & SAE's safety and tolerability
- Local recurrence rate
- Progression Free Survival (RECIST v1.1)

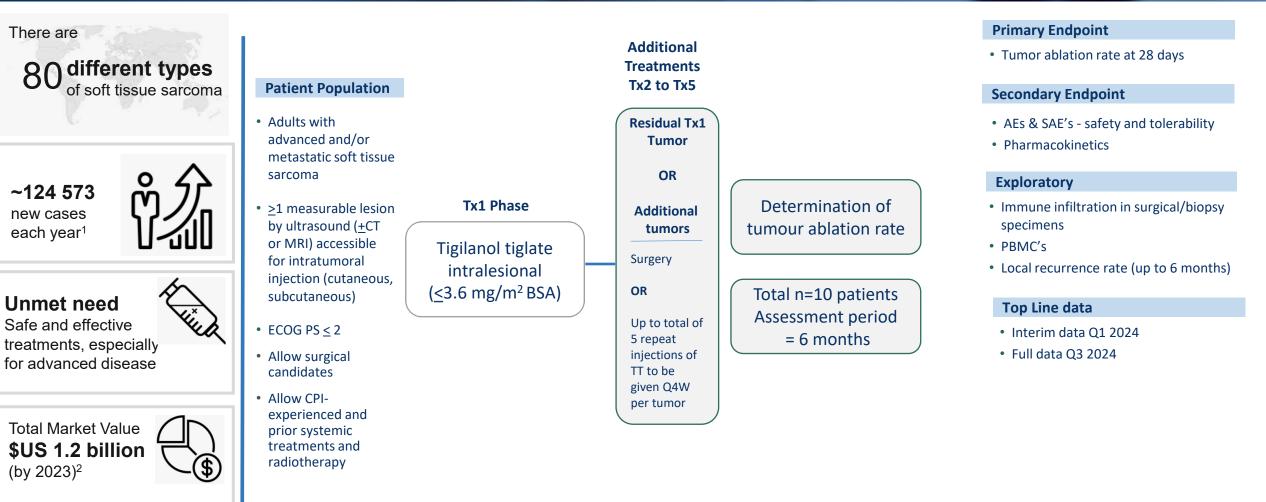
#### Exploratory

- General Cancer QoL (EORTC QLQ-C30)
- Head and Neck QoL (EORTC QLQ-H&N35)
- Tumor response in injected and noninjected tumors
- Assessment by itRECIST
- Wound Healing
- ORR (RECIST v1.1 and itRECIST)
- Immune infiltration in surgical/biopsy specimens
- ctDNA ; PBMC's

#### **Top Line data**

- Interim data Q2 2024
- Full data Q2 2025

TT, tigilanol tiglate; AE, adverse event; SAE, severe adverse event; CPI, checkpoint inhibitor; CT, computed tomography; ECOG, Eastern cooperative oncology group; MRI, magnetic resonance imaging; Q4W = every 4 weeks; Tx1, Tx2- Tx5 = tigilanol tiglate treatment of the same tumour, BSA = Body Surface Area, ORR = Overall Response Rate; QoL = Quality of Life; EORTC = European Organisation for Research and Treatment of Cancer. \*The null hypothesis will be rejected if 14 or more responses are observed in 37 participants. This design yields a type I error rate of 0.05 and power of 90% when the true response rate is 50%. An Exploratory Phase II, single-centre, open-label study (QB46C-H07) assessing the preliminary efficacy of tigilanol tiglate in patients with advanced and/or metastatic soft tissue sarcoma (NCT05755113)



19

TT, tigilanol tiglate; AE, adverse event; SAE, severe adverse event; CPI, checkpoint inhibitor; CT, computed tomography; ECOG, Eastern cooperative oncology group; MRI, magnetic resonance imaging; Q4W = every 4 weeks; Tx1, Tx2, Tx3 = tigilanol tiglate treatment of the same tumour, BSA = Body Surface Area

 $\bigcirc$ 

## EBC-1013: Wound healing - veterinary case studies



Pre-treatment



Day 19: Wound in-fill



Canine surgical wound, closure not possible (3 treatments, 7 days apart)

Day 42



Day 63



Day 78

### Equine traumatic penetrating wound (1 gel application)



Day of wounding

Day 0 (infected wound 5 days after trauma)



5 day after treatment





Treatment Day 1 (8 days after burn)





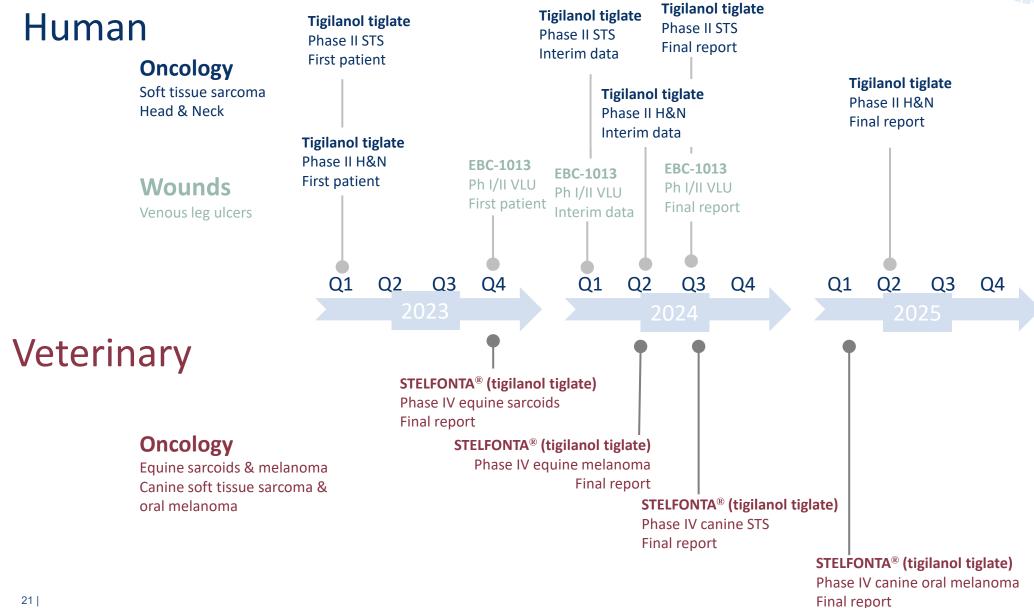




38 Day 73
OBiotics Group



# Clinical Development Key milestones



QBiotics Group

# QBiotics – at a glance





**Focused Strategy** 

#### Translating ecological knowledge into novel therapeutics

**EcoLogic**<sup>TM</sup>

- Megadiverse tropical rainforest
- Phenotypic screening
- Unique Molecular Scaffolds
- Unencumbered IP
- Parallel develop therapeutics for human & companion animal markets

Oncology	• STELFONTA®
<ul> <li>Tigilanol tiglate IT</li> </ul>	(tigilanol tiglate)
Solid tumors	registered and
	marketed for
Wound healing	treatment of canine
EBC-1013 topical gel	mast cell tumors
<ul><li>Venous leg ulcers</li><li>Equine wounds</li></ul>	- 75% CR rate in FDA registration trial
Early stage programs: Antibiotics Anti-inflammatory	<ul> <li>&gt;15,000 dogs treated in EU, USA, UK and Australia</li> </ul>

Robust compliant supply chain

Phase II trial in **FONTA®** nol tiglate) ered and eted for nent of canine

STELFONTA

**Regulatory &** 

**Commercial validation** 

patients with head and neck cancer (QB46C-H08) • Phase II trial in

**Human Oncology** 

- patients with soft tissue sarcoma (QB46C-H07)
- Parallel translational research program



### **Organisation**

- Strong scientific knowledge
- In-house veterinary capabilities
- Secure raw material growing facilities
- Revenue and strong balance sheet
- Seeking partners to accelerate development & commercialization

# Thank you

# **QBiotics** Group

Harnessing the power of nature to improve lives.

E: Richard.Godfrey@qbiotics.com qbiotics.com