

## **SoftOx Solutions AS**

Unique antimicrobial platform technology with application to Wound Care & Infectious Disease treatment and prevention

DNB HEALTHCARE CONFERENCE 2022

15 December 2022



## **Forward-looking statement**

Certain statements contained in this presentation constitute forward-looking statements. Forward-looking statements are statements that are not historical facts, and they can be identified by the use of forward-looking terminology, including the words "anticipate", "believe", "intend", "estimate", "expect", "will", "may", "should" and words of similar meaning.

By their nature, forward looking statements involve a number of risks, uncertainties and assumptions that could cause actual results or events to differ materially from those expressed or implied by the forward-looking statements. Accordingly, no assurance is given that such forward looking statements will prove to have been correct. They speak only as at the date of the presentation and no representation or warranty, expressed or implied, is made by SoftOx Solutions AS or its affiliates ("SoftOx"), or by any of their respective members, directors, officers or employees that any of these forward-looking statements or forecasts will come to pass or that any forecast result will be achieved, and you are cautioned not to place any undue influence on any forward-looking statement.

SoftOx is making no representation or warranty, expressed or implied, as to the accuracy, reliability or completeness of this presentation, and neither SoftOx nor any of its directors, officers or employees will have any liability to you or any other person resulting from the use of this presentation.

Copyright of all published material, including photographs, drawings and images in this presentation remain with SoftOx and relevant third parties, as appropriate. Consequently, no reproduction in any form of the presentation, or parts thereof, is permitted without the prior written permission, and only with appropriate acknowledgements.



## **Today's presenters from SoftOx management**



#### Geir Hermod Almås Chief Executive Officer

MSc (Norwegian Business School - BI) Chartered Accountant (Norwegian School of Economics, NHH) 15+ years' experience in business development



## Dr Christopher Burton Chief Medical Officer

MA (Cambridge University) MD (Imperial College London) PhD (University of Copenhagen) 15+ years' pharmaceutical & clinical development experience

SoftOx in brief

SoftOx technology



## **SoftOx – Key takeaways**



Clinical studies of wound technology – showing consistent reduction in wound bacterial burden and dose-dependent reduction in wound size after just 5 days' treatment



Clinical study of respiratory technology - showing favourable tolerability and safety with preclinical proof of concept in animals



Wide-ranging platform technology with extended patent family – over 70 patents issued worldwide



Today's projects address significant unmet needs identified by the FDA, US DoD and the EU



Ongoing defence collaborations in the US and EU providing non-dilutive funding



## **Network-based product development**

#### PARTNERS **Preclinical Proof Clinical Proof** COMMERCIALIZATION Concept development PARTNERING of Concept of Concept **DE-RISKING FROM CO-FUNDERS AND PARTNERS** Investment phase Cash flow UNIVERSITY OF MALMÖ UNIVERSITY COPENHAGEN ( Bispebjerg Hospital Forsvarets FF Commercial, Industry forskningsinstitutt Norwegian Defence Research Establishment & Financial Partners EXCITE **Clinical Partners** Academic Research Partners

**Key Opinion Leaders** 

(KOLs) Network

#### SoftOx technology



## **Product pipeline – Good progress in clinical development programs**

Business segments	Projects	Pre-clinical	Phase I	Phase II	Regulatory approval	Collaborations
Disinfection	Hand and surface disinfectants (SafeDes & EffectDes)				Keml (Sweden) granted 10-2022	Bispebjerg Hospital UNIVERSITY OF COPENHAGEN
Wound Care	Wound irrigation solution				-	UNIVERSITY OF COPENHAGEN
	Chronic wound treatment					Bispebjerer Hospita
Infectious disease	Inhalation solution					UNIVERSITY OF COPENHAGEN FFF Forsvarets Norwegian Defence Research Estaddahment

This table presents a simplified version of the development phases as processes vary for biocide, medical device and drug development The Company's negotiations with distributors and partners are in different phases and some are in the early stages of the dialogue. No assurance can be made as to whether final agreements are concluded.



## SoftOx technology – a stable and long-lasting product with unique combination effects





Stabilized formulations with 3-year shelf life

The base technology is applicable across different indications and uses



## **HOCI** has direct and indirect antimicrobial MoA:

Independent of biological processes and unreliant on a metabolic target or receptor





## **Business segments**



## Infectious disease

Treatment of viral infections and biological countermeasure development



## Wound care

Treatment for acute and chronic wounds

Disinfection

Infection prevention solutions for hands and surfaces

SoftOx in brie

SoftOx technology

**Business segments** 





Business segment: Infectious disease



## Respiratory infectious diseases are the third leading cause of death worldwide<sup>1</sup> and pose significant socioeconomic costs





#### **Limitation of vaccines**

Need for a novel, self-administered, product with broad-spectrum, antiviral and antibacterial effects



#### Morbidity & mortality

Need for early antimicrobial interventions that are unaffected by mutation, and do not induce antimicrobial resistance



#### **Emergent microbial threats**

Need for a first-line defence product against disease X (the next pandemic) — a product that is both antibacterial and antiviral, and can be used immediately

1.Forum of International Respiratory Societies. (2017) *The Global Impact of Respiratory Disease – Second Edition*. European Respiratory Society.

https://www.who.int/gard/publications/The\_Global\_Impact\_of\_Respiratory\_Disease.pdf World Health Organization (WHO). (n.d.). *New report calls for urgent action to avert antimicrobial resistance crisis*. https://www.who.int/news/item/29-04-2019-new-report-calls-for-urgent-action-toavert-antimicrobial-resistance-crisis



## Pre-clinical proof of concept:

Demonstration of infection prevention in a mouse model



Infectious Disease

Data on file.



## Nebulised formulation safe and well tolerated

Abstract presented to ERS 2022



36474

### No SAEs

- Mild, self-limiting AEs related/unrelated to • drug administration
- Acceptable local tolerability
- No effect on spirometry, vital signs, ECG or safety laboratory values

#### At all dose levels

Regardless of dosing frequency

#### **D** SOFTOX

#### Safety of ascending single and multiple doses of inhaled SIS, an isotonic aqueous solution of sodium hypochlorite, in healthy subjects C. Burton<sup>1</sup>, T. Balchen<sup>2</sup>, L. Wilki-Kurtzhals<sup>2</sup>, N. Sjögren<sup>3</sup>, T. Bjarnsholt<sup>4</sup>, E. Jørgensen<sup>5</sup>, D. P. Sonne

nmark), 2DanTrials ApS ark). <sup>3</sup>SDS Life St

SIS is a novel aqueous formulation of sodium hypochlorite (NaOCI), which is present as hypochlorous acid (HOCI), a biological oxidant with broad ctrum antimicrobial activity in vitro Objectives & Methods This single-centre, first-in-human, randomised, double-blind, place olled study was designed to explore the safety and tolerability of cending single and multiple doses of inhaled SIS. Subjects were rande ive SIS formulations (HOCI concentrations 25 - 100 ug/mL) in single or multiple daily administrations A total of n = 57 healthy subjects (age 27  $\pm$  6 years, BMI 23.9  $\pm$  2.9 kg/m negn ± SD), 60% male, 84% Caucasian, 98% not Hispanic or Latino.) were ised to receive SIS (n = 43) or placebo (n = 14) (Table 1). One subject withdrew voluntarily from the study due to personal choice, unrelated to nent. There were no reported serious adverse events. A total of 18 adverse events were reported in 15 subjects (27.9% subjects receiving S nd 21.4% subjects receiving placebo). Adverse events were pr mild (Figure 1). Solicited reporting of primarily mild local tolerability show lationship in SIS treated groups (e.g., solicited reporting of "burning" was recorded in 0% assessments in the single dose 25 µg/mL ation group and 14.2% assessments in the four times daily 100 µg/mL

ry were observed (Figure 3).





#### SIS-01 trial (NCT05188638). Burton et al. ERS Congress 2022. Abstract #36474.

**Business segments** 



## Market potential of aerosolised SoftOx formulations

Example roll out across indications and evolution of price vs. volume





SoftOx in brief

#### SoftOx technology

#### **Business segments**





Business segment: Wound care



## Significant unmet need for effective treatment in wound care



### UNMET NEED:

6.5 million

chronic wound patients in the US

#### Patient population drivers:

- Obesity
- Diabetes
- Population over 65 years of age

## \$25 billion

Annual treatment costs of chronic wounds in US

### POTENTIAL MARKET:

Lack of innovative products to treat non-healing chronic wounds

- · Human skin wounds: a major and snowballing threat to public health and the economy
- The US Food and Drug Administration (FDA) understands that innovative product development is essential to addressing the unmet medical need of non-healing chronic wounds

Verma, K. D, et al. (2022). Food and Drug Administration perspective... *Wound repair and regeneration*, 30(3), 299–302. https://doi.org/10.1111/wrr.13008



## An effective wound product must be broad spectrum because of many types of bacteria in the wound





Representative CLSM images of *S. aureus* (A and B), *P. aeruginosa* (C and D). Arrows point to the wound surfaces.

40-70% of venous leg ulcers are colonized by multiple (~5 to 6) bacterial species<sup>1</sup> which often cluster in biofilms with variable distance to the wound surface

Gødsbøl et al, Copenhagen Wound Healing Center; 2. Fazli et al. J Clin Microbiol 2009 Dec;47(12):4084-9







## Safe and well tolerated in patients with chronic leg wounds:

Observed reductions in bacterial burden and wound size with dose response



\*) SBE-01 trial pooled & multiple dosing groups. Data on file. Means ± standard deviation

SoftOx in brief



## First indication gives large market opportunities

**UNMET NEED:** 

Wound

## 6.5 million

chronic wound patients in the US<sup>1</sup>

#### Patient population drivers:

- Obesity
- Diabetes
- Population over 65 years of age

## \$25 billion

Annual treatment costs of chronic wounds in US<sup>1</sup>

#### POTENTIAL MARKET:

Compared to usual care, as shown through a decision analytic model developed by MedValue and Radboud University<sup>1</sup>:

> 2.3 million \$4 983 Est. cost savings of faster wound Targeted annual patient population with VLUs in the US healing per patient

\$11.5 billion

Cost savings of reduced time to healing in VLUs

https://pubmed.ncbi.nlm.nih.gov/19903300/ 1)

MedValue and Radboud University. Data on file. 2)





## Unique platform technology

with combination effects & supported by clinical evidence



Significant unmet medical needs in wound care and infection disease

# SOFTOX

For further information, please contact

8 I

70+ patents issued Strong patent family protecting IP



## Co-funded development

Expect 50–90% military co-funding in US and Europe

Contact Information: <u>ir@soft-ox.com</u> CEO Geir Almås CMO Dr Christopher Burton

Euronext Growth ticker: SOFTX