

Pulmo

BioMed

Your Breath: Your Health™

Non-Invasive Deep Lung Sampling

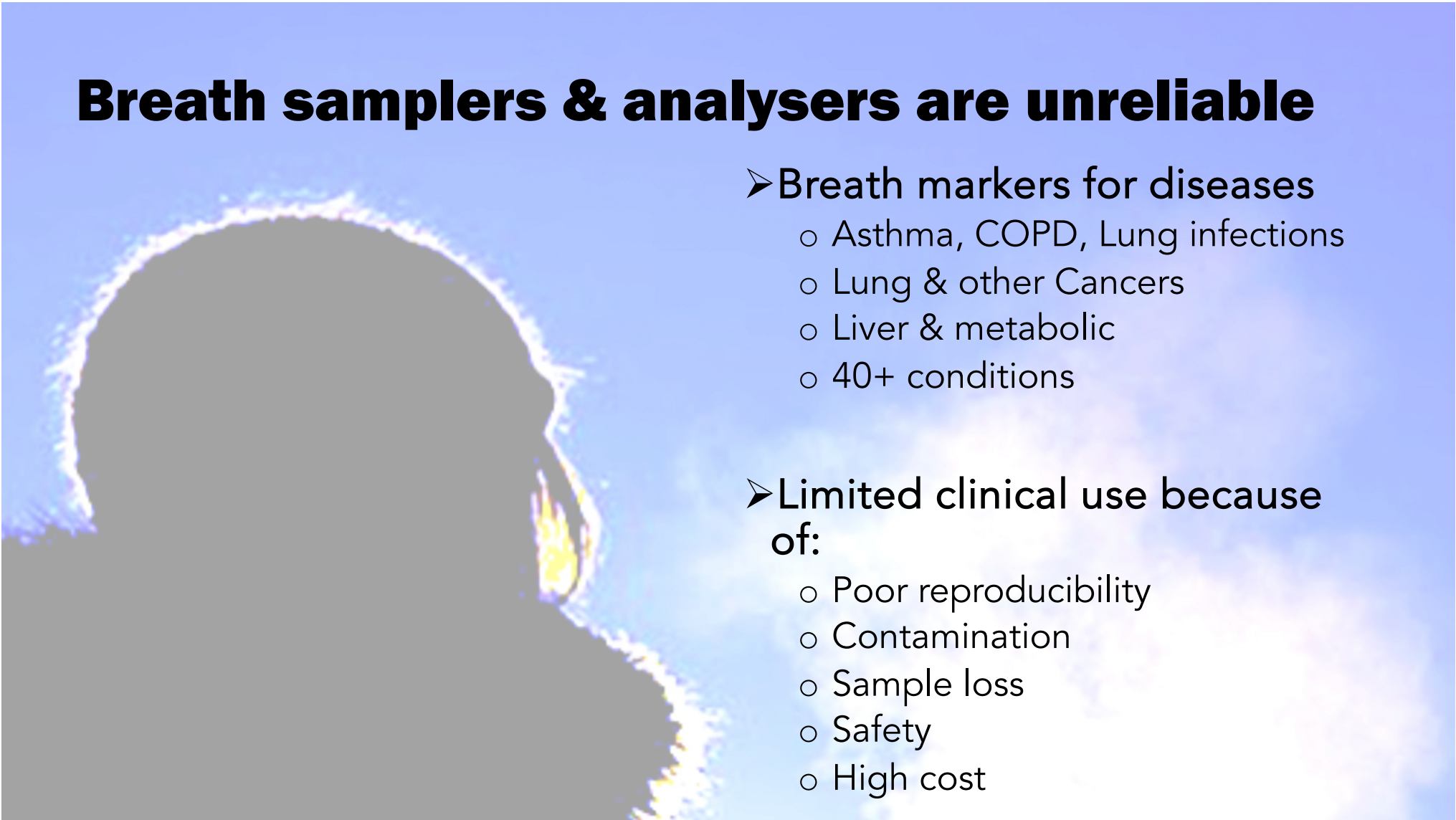
Dr. Sterghios A. Moschos FIBMS FRSC
CSO and founder

A spin-out from Northumbria University

Breath samplers & analysers are unreliable

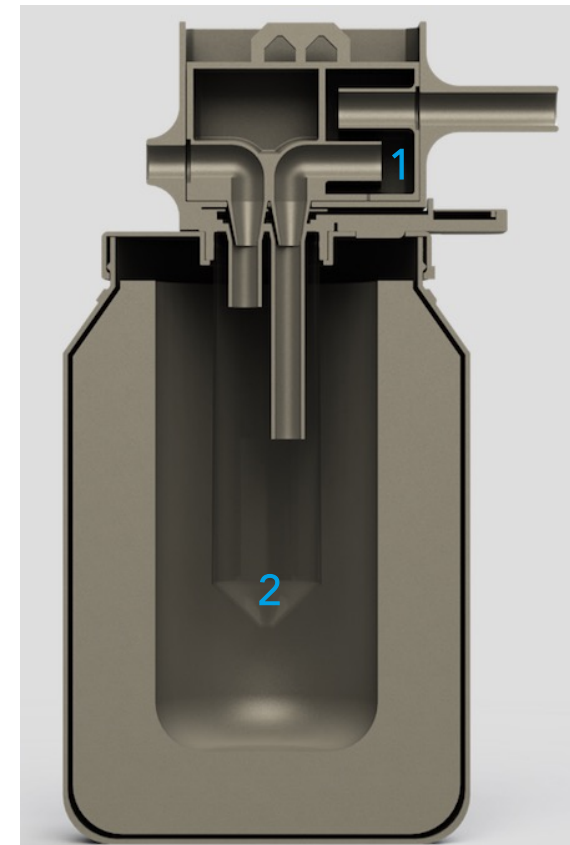
- Breath markers for diseases
 - Asthma, COPD, Lung infections
 - Lung & other Cancers
 - Liver & metabolic
 - 40+ conditions

- Limited clinical use because of:
 - Poor reproducibility
 - Contamination
 - Sample loss
 - Safety
 - High cost



PBM-HALE™ Solves Key Problems:

- Offers 2 separate samples, simultaneously:
 1. Upper Airways
 2. Deep Lungs
- Reproducibly: no sample loss
- Safely: no intubation or anaesthesia
- No contamination: salivary or environmental
- Low cost sample collector: analyse all types of disease markers



PBM-HALE™

Granted patents: WO2017153755A1 & WO2019053423A1

Target market segments:

➤ 0-5 year old wheeze

- 1/3 of all children <3yo ¹
- >1.6 million cases p.a. in USA alone²
- US\$500 M opportunity



- *"No way to test right now"*

➤ Elderly lung infections

- >960,000 p.a. USA hospital admissions ³
- >120,500 p.a. cases among 65yo+ in UK ^{4,5}
- US\$2.6 Bn global lung screening market



- *"Antibiotics and hope for the best"*

1. Martinez FD NEJM 1995; 2. Brand PL ERJ 2014; 3. [ATS 2019](#). 4. ONS 2019; 5. [LGA 2017](#).



The Team

➤ **Founder and CSO**
FIBMS

Dr Sterghios A. Moschos FRSC

20 years in industry and academia: biomarker discovery for respiratory disease; design & development of *in vitro* diagnostics & devices.

➤ **Chairman of the Board**

Dr Huw A. Edwards

30+ years global experience in emerging diagnostic technologies; CEO and Chairman experience in life-science companies.

➤ **CEO**

Dr Pete Hotten

25+ years business management experience; with CEO, Board and non-executive roles; skilled IP strategist & commercial negotiator.

➤ **Chief Operating Officer**

Jonathan Brookes

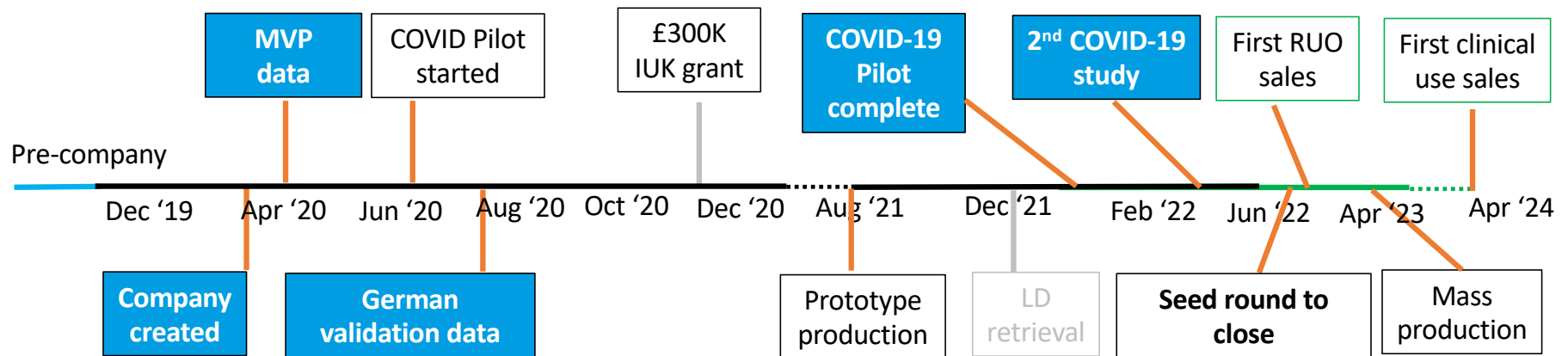
15 years in the medical device industry; specialist in regulatory and quality management; Board level experience in operational leadership.

➤ **NED Clinical Research**

Prof. Peter J Barnes FRS, FRCP, CFFP, FMedSci

Highest-cited respiratory clinician for the past 20 years, co-author of GINA (asthma) & GOLD (COPD) clinical guidelines, & exhaled breath research guidelines & technical standards.

Key event timeline

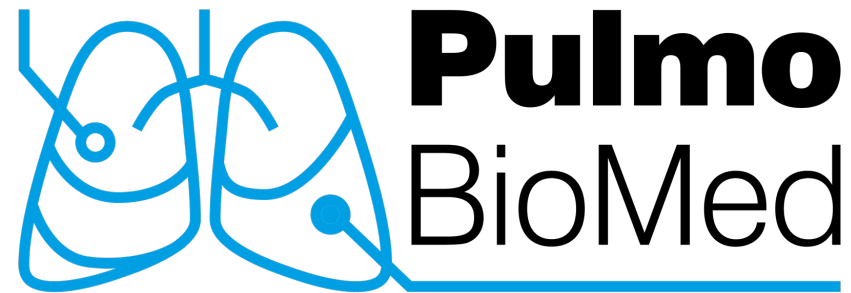




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