

# A preventative care monitoring solution for chronic lung diseases



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Aware Engineering

Non-confidential Presentation

March 20, 2015

# Meet 5 year-old Preston with cystic fibrosis (CF)

1 of +40,000 people with CF in the EU



# Preston's daily battle for health is adherence!



Chest  
Pulmonary  
Therapy



Spirometry



TOBI  
Podhaler



Air Nebulization



Membrane  
Nebulization



Sterilization

Preston's adherence is  $< 50\%$ .<sup>1-4</sup>

# Preston's current monitoring choices are limited.

Poor adherence = Increased sickness & higher costs



Preston has to pay **\$6'000** for a bulky (200g),



limited use (**single device**) monitor,



that provides **no adherence alerts** or predictions.



Even worse, Preston and his family have **no access** to his data!



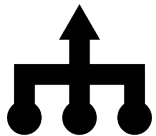
Just another **cold, unfriendly** medical device.

# AE addresses Preston's unmet care needs!

Better care = Improved quality of life & lower costs



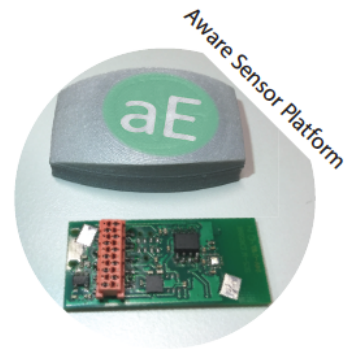
Preston can raise \$40 at a lemonade stand to buy,



a tiny (2g), multi-device monitor,



that uses gamification (fun) to promote adherence.

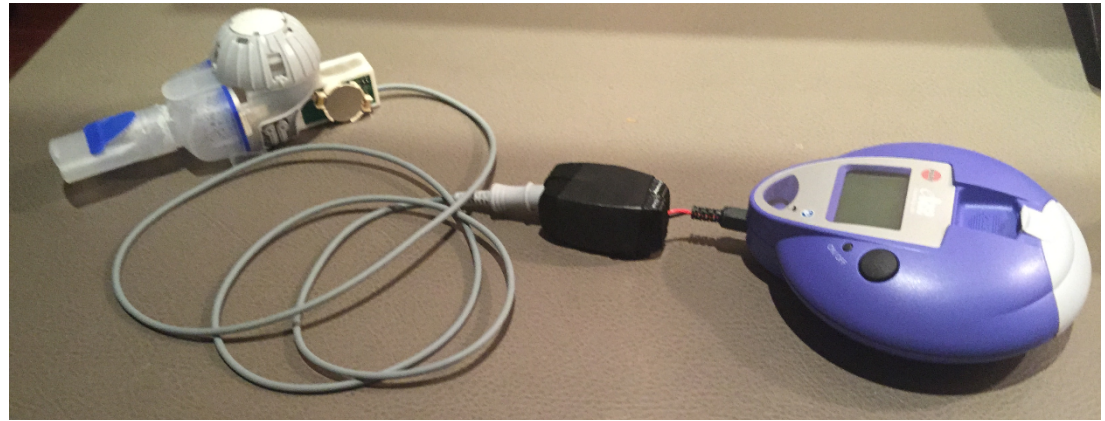
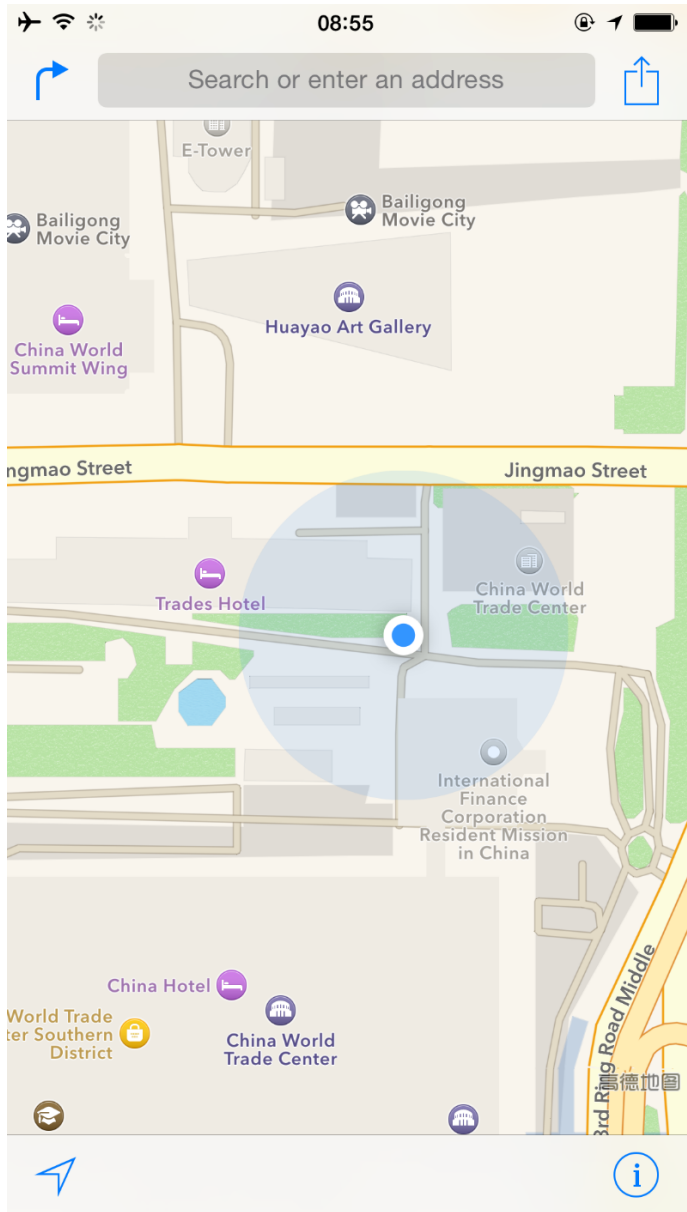


Simplified data visualization allows Preston and his family

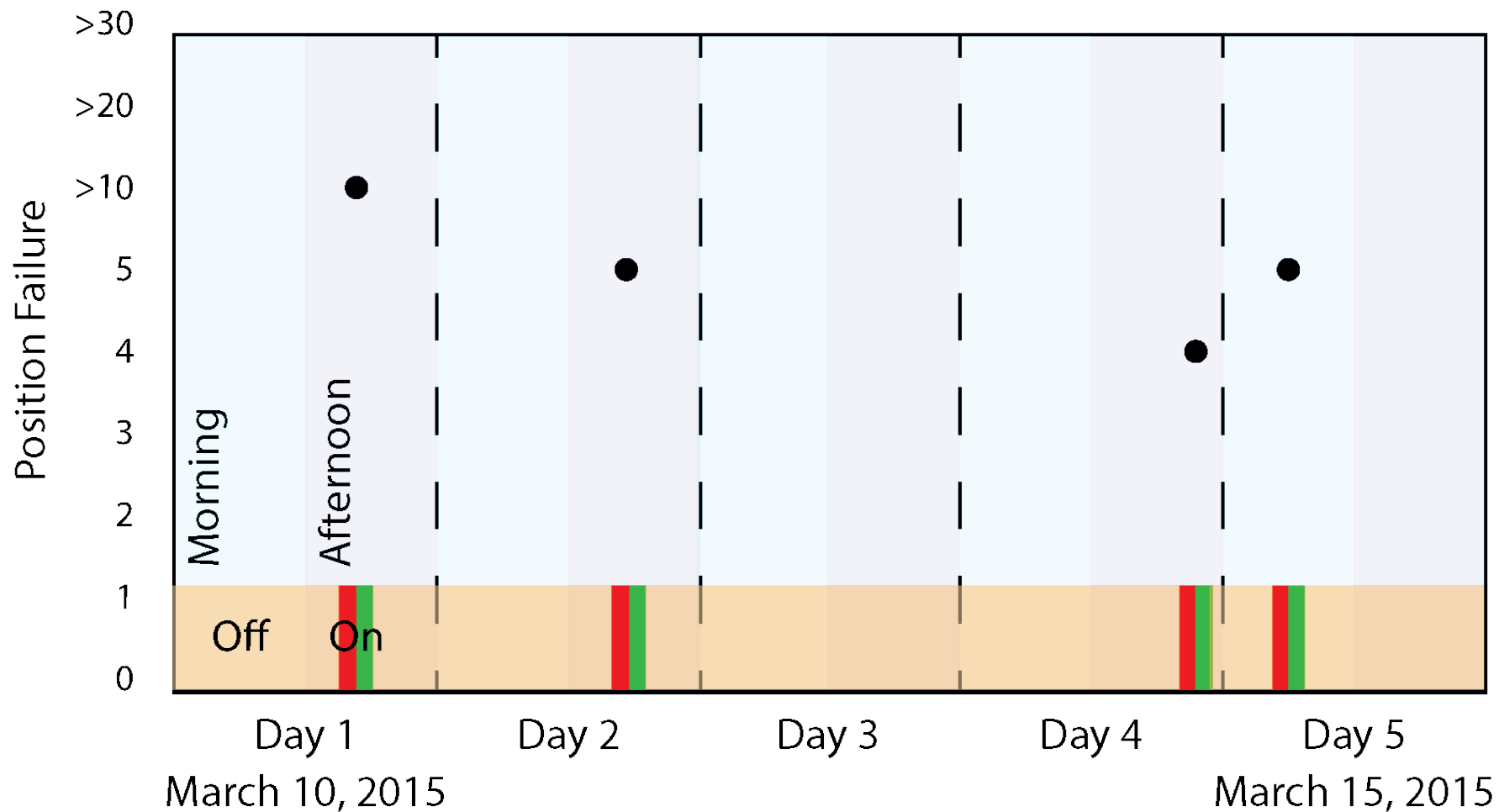


to turn his personal data into better care and predictive insights.

# Prototype is portable and long-lasting



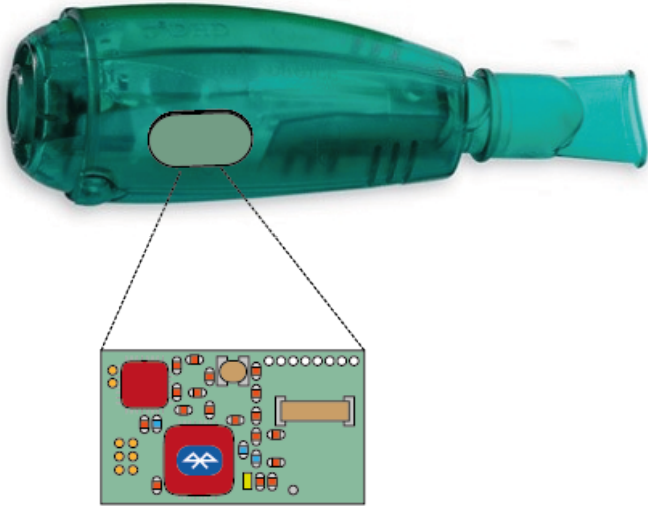
# Prototype produces high-quality data



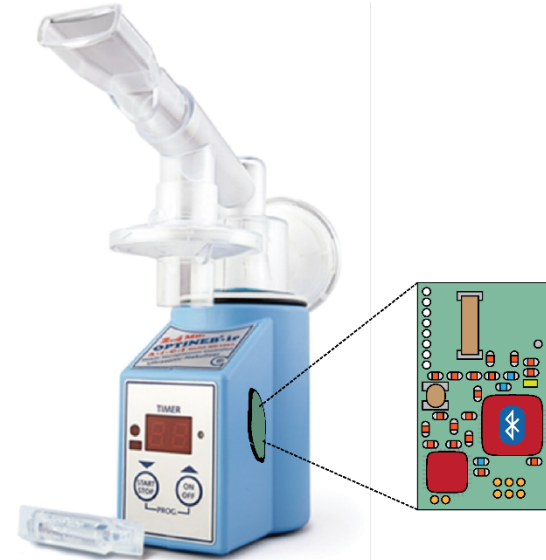


# COPD/asthma & pulmonary hypertension devices

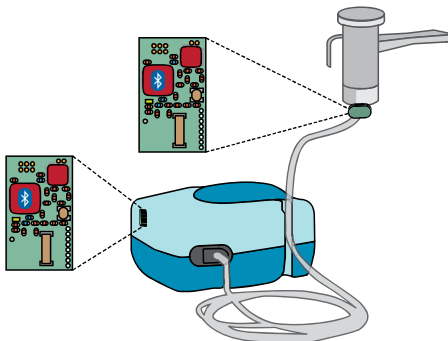
## Flutter devices



## Pulmonary hypertension prostacyclins



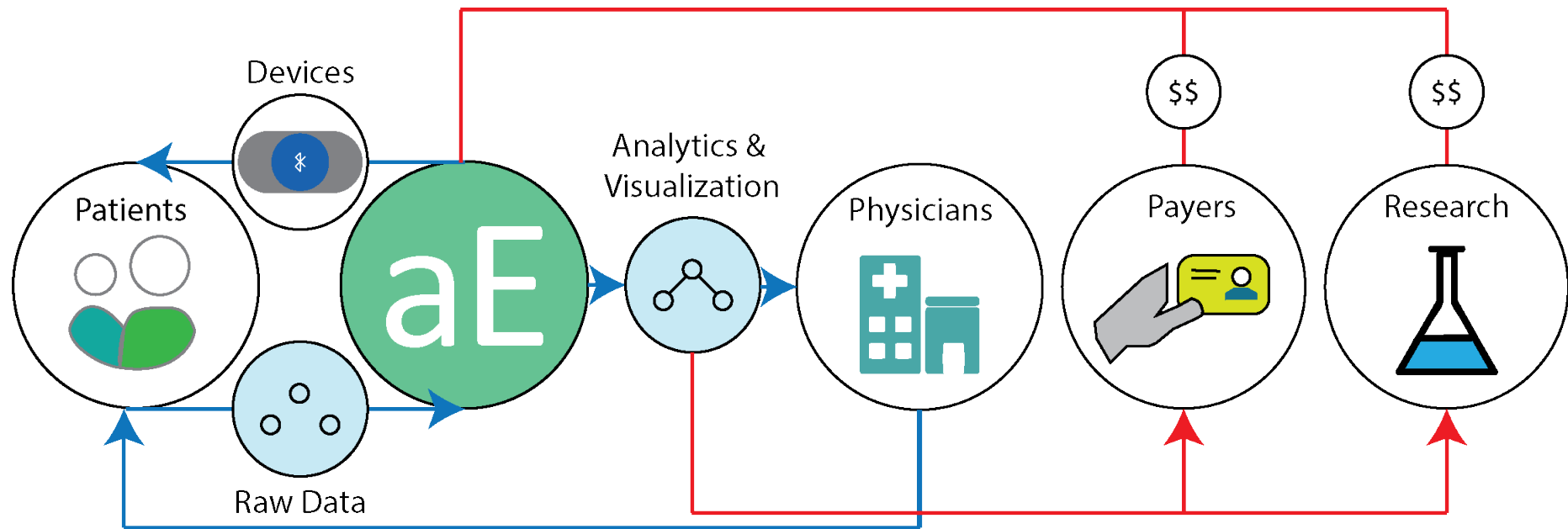
## Membrane and compressor nebulizers





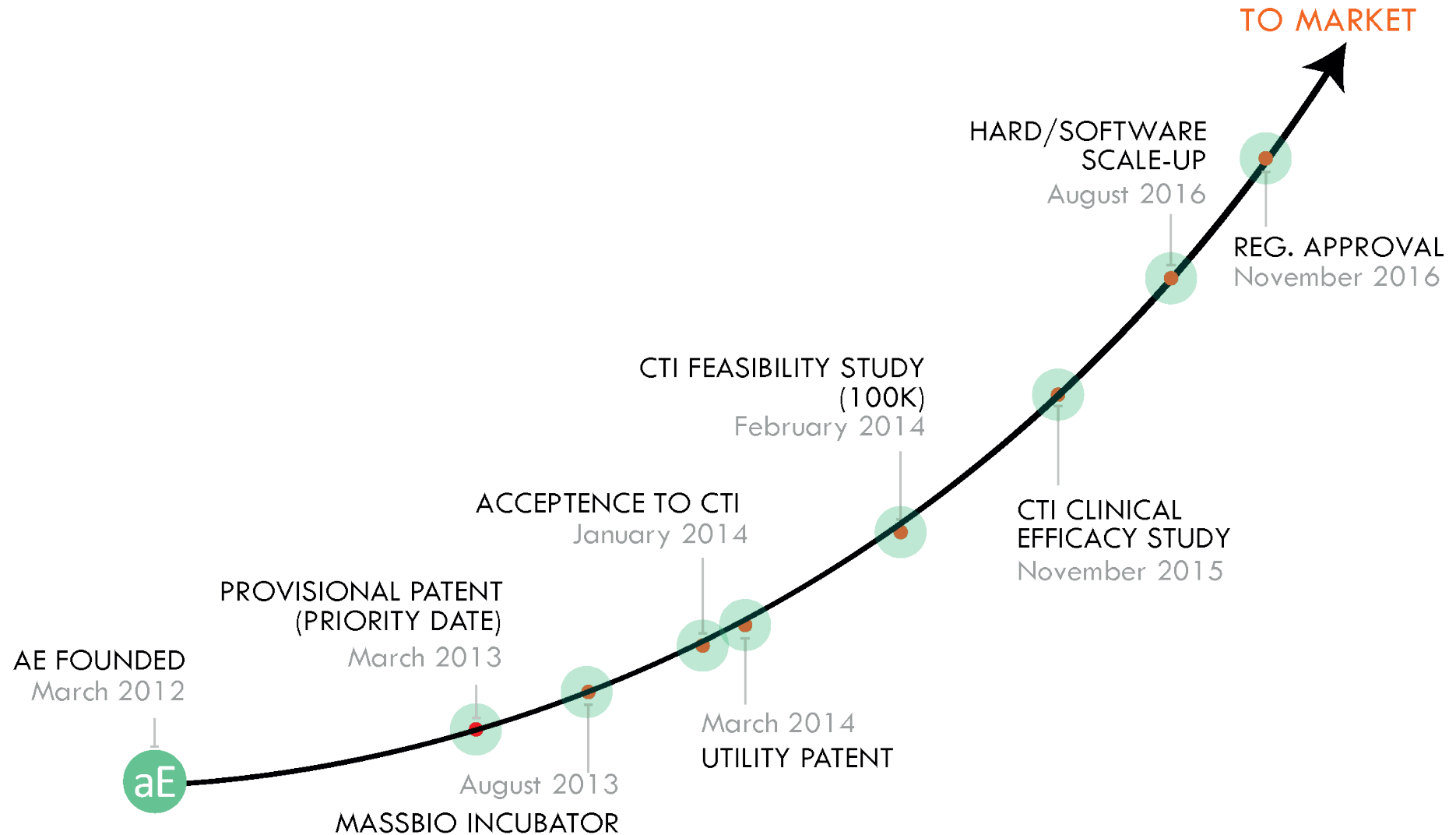
# AE's disruptive hardware creates high-value data.

Game-changing hardware. Big-data analytics.



AE creates benefits across the value network

# Clear path to market with key resources in place to act.



# Strong traction and accelerated growth opportunities.

## World-leading partners



Children's Hospital Boston



VCU



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra



UniversitätsSpital  
Zürich

Sheffield Teaching Hospitals **NHS**  
NHS Foundation Trust



MASSACHUSETTS  
GENERAL HOSPITAL

Eidgenössisches Departement für  
Wirtschaft, Bildung und Forschung WBF  
**Kommission für Technologie und Innovation KTI**  
Förderagentur für Innovation

**ETH**

Eidgenössische Technische Hochschule Zürich  
Swiss Federal Institute of Technology Zurich

## Value creation

MassBio and CTI start-up

Awarded CHF 100k for feasibility study (USZ,ETHZ)

700k clinical efficacy study in development

# Crazy-smart, disruptive founders



Eli Goldberg, CEO  
PhD Chem and Bioengineering



Scott Luchau, CFO  
MBA



Sami Galal, CTO  
MSc ETHZ Comp. Sci.

The founding team apply their unique expertise in:

Data mining and big data analytics

Predictive machine learning

Information security

System engineering

Statistical modeling

# Backed by multi-disciplinary world-experts

## Scientific Advisory Board

Prof. Dr. Gerhard Tröster; Director of WearLab (ETHZ)

PD Dr. med Christian Benden; Director of Pulmonary Medicine (USZ)

## Data Security, Privacy, and Ethics Advisory Board

Prof. Dr. Ernst Hafen; Institute Deputy Head of Molecular Systems Biology (ETH)

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Dianne Borque Esq.; Health and Regulation Attorney at Mintz Levin

Prof. Dr. David Basin; Director of the Institute of Information Security (ETH)

## Senior Advisory Board

Elsa Jacobson; Program Director: Stanford Healthcare

