

"We use the worldwide first self-organizing human heart organoids to reinvent cardiac drug discovery."

DRUG DISCOVERY CHALLENGES

Current cardiac disease models used for drug discovery.....

- · lack human physiology;
- · lack a pumping heart chamber;
- · miss multi-cellular architecture and interactions;
- · are mostly not scalable.
- -> High drug failure rates when translated into human clinical trials

Solution: Human organoid model system and screening assay (Cardioids) along the entire cardiac drug discovery value chain.

CARDIOID TECHNOLOGY

Human stem-cell derived formation of a beating heart chamber



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Unique features:

- · Resemble human heart architecture;
- Allow to measure heart pumping function;

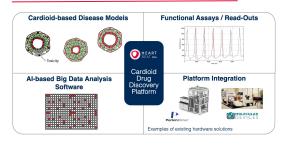
Multi-cellular.

chamber-like structure

- · Highly reproducible;
- · Cost-efficient;
- · Scalable for high-throughput application.

ource: Hofbauer et al: CeH Hofbauer, P., et al. (2021). Cardioids reveal self-organizing principles of human cardiogenesis. Cell

CARDIOID DRUG DISCOVERY PLATFORM



VALUE CREATION FROM 3 REVENUE STREAMS

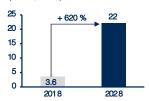


TARGET MARKET: HEART FAILURE

Prevalence in Heart Failure (in million)¹⁾ 40 40 29.5 20 2018 2028

- Aging population
 Ingresses of patients with diabetes.
- Increase of patients with diabetes, obesity, hypertension

Drug Sales in Heart Failure (in US-\$ billion)¹⁾



- Market crowded with generics (~70% of drug sales)
- Main growth driver: Launch of new drugs with limited clinical benefit

1) Numbers in 8 major markets: USA, France, Germany, Italy, Spain, UK, Japan, China Source: Heart Failure: Global Drug Forecast and Market Analysis to 2028, Global Data, December 201

COMPETITIVE LANDSCAPE



Source: Company websites.

Level of Human Physiology

3-YEARS ROADMAP

2022

Upscaling Cardioid production

- Pharmacological validation
- Drug-induced cardiotoxicity model

2023

- Prototype Cardioid Drug Discovery Platform
- Cardiomyopathy models
- Technology licensing partner for cardiotoxicity testing

1st half 2024

- 1st pharma partnership
- Ready to start own drug discovery program
- Series A investment round

€ 6 M to fund 3-years roadmap until mid of 2024:

- Secured seed funding: € 1.7 M
- Expected non-dilutive funding: € 3.3 M
 Pre-Series A round (Q1 2022): € 1 M equity

FOUNDER TEAM

FINANCIAL NEEDS



PABLO HOFBAUER



MICHAEL KREBS



SASHA MENDJAN



OLIVER SZOLAR

HeartBeat.bio AG

Projektbranche: BIOTECH

Kundenfokus: B2B

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