

HeartBeat.bio collaborates with Boehringer Ingelheim to investigate cardiac organoids for the development of new treatments for people with heart diseases

VIENNA, Austria – 5 October 2022 – [HeartBeat.bio AG](#) has entered a collaboration with Boehringer Ingelheim for the investigation of human cardiac organoids (Cardioids) for high-throughput early safety assessment and drug discovery. The collaboration aims to accelerate development of new therapy options and achieve better outcomes for people with heart diseases. Boehringer Ingelheim will work with the scientists from HeartBeat.bio to further advance the company's platform using selected reference compounds from Boehringer Ingelheim's research and development programs.

Up to one third of investigational new drugs across all therapy areas fail in late-stage clinical trials due to safety concerns – in most cases due to adverse cardiovascular reactions.¹ Existing cardiac safety screening models, such as cardiomyocytes, are limited in predictability as they are not able to sufficiently recapitulate human heart physiology. HeartBeat.bio's 3D biology screening platform aims to overcome these limitations by using self-organizing, highly scalable Cardioids as translational models for high-throughput early safety assessment and drug discovery.

Michael Krebs, CEO of HeartBeat.bio, commented: "We are delighted to work with Boehringer Ingelheim to validate our Cardioids for safety assessment and drug discovery. This collaboration is an important step in advancing our high-throughput Cardioid screening platform for drug development in different indications of heart failure. Our aim is to radically change the drug discovery paradigm and thus significantly improve the time and success rates for development of urgently needed, new therapeutic options for heart disease patients."

HeartBeat.bio's heart organoids are stem-cell derived 3D cell culture systems, which mimic the human heart physiology in a totally new way. In collaboration with Molecular Devices, a leading provider of automated 3D cell culture and image analysis solutions, HeartBeat.bio is working to make a high-throughput screening platform based on Cardioids broadly available. Once launched, this Cardioid screening platform has the potential to improve preclinical research, leading to higher clinical trial success rates, reduced costs and accelerated timelines contributing to transforming lives for people with heart diseases.

About HeartBeat.bio

HeartBeat.bio AG is dedicated to developing the first high-throughput human organoid screening platform for cardiac drug discovery. The technology platform is built on self-organizing, highly scalable cardiac organoids which recapitulate the human heart physiology and enable modeling of diseases such as drug-induced and genetic cardiomyopathies as well as myocardial infarction, heart remodeling and regeneration. HeartBeat.bio AG was founded in 2021 based on technology from the [Institute of](#)

Molecular Biotechnology (IMBA) by a seasoned team with in-depth experience in organoid research, drug discovery and business development. The Company is supported by the Seed Program of the Austrian promotional bank (AWS) as well as grants from the Austrian Research Promotion Agency (FFG) and the Vienna Business Agency. HeartBeat.bio AG is located at the Vienna BioCenter in Austria. For further information, visit www.heartbeat.bio.

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¹ Magdy, T., Schuldt, A. J. T., Wu, J. C., Bernstein, D. & Burrige, P. W. Human Induced Pluripotent Stem Cell (hiPSC)-Derived Cells to Assess Drug Cardiotoxicity: Opportunities and Problems. *Annu. Rev. Pharmacol. Toxicol.* 58, 83–103 (2018).