BioVAT-HF Phase 1/2 Reveals First Evidence for Effective Heart Repair in Advanced Heart Failure

- **Featured Late Breaking Clinical Science presentation at American Heart Association Scientific Sessions in Philadelphia**
- **Safe Maximal Dose Confirmed with 12-month follow-up**
- **Proof for vascularized remuscularization presented**
- **First evidence for improved function and symptoms 6-12 months post implantation**

Göttingen, Germany, Nov. 14, 2023 (GLOBE NEWSWIRE) - Repairon, a clinical-stage German biotech company focused on developing a disruptive treatment for heart failure, together with the University Medical Center Göttingen (UMG) and Lübeck (UKSH) as well as the German Center for Cardiovascular Research (DZHK), today announced that its Co-Founder Professor Wolfram Zimmermann held a Featured Science presentation at the American Heart Association (AHA) Scientific Sessions 2023 on November 12, 2023, in Philadelphia, US.

The presentation by Professor Wolfram Zimmermann revealed the latest clinical data from the BioVAT-HF Phase 1/2 trial (NCT04396899) evaluating the safety and efficacy of iPSC[1] -derived Engineered Human Myocardium (EHM) as Biological Ventricular Assist Tissue (BioVAT) in Terminal Heart Failure. The first-in-human dose-finding part of BioVAT-HF demonstrated that EHM were safe and well tolerated at all tested doses.

The study also demonstrated:

- Safe maximal dose of EHM grafts constructed from 800 million iPSC-derived cardiomyocytes and stromal with 12 months follow-up
- Proof-of-principle for vascularized remuscularization of the failing human heart
- First evidence for sustainable thickening of target heart wall by EHM grafts
- First evidence for improved heart function (ejection fraction) and symptoms (NYHA and KCCQ)

“Improving the clinical outcome of patients suffering from advanced heart failure has been so far extremely limited. Mechanical assists devices and heart transplantation are for most affected patients the last and only option. Remuscularization by cardiomyocyte implantation is evolving into a real alternative. Repairon’s proprietary Engineered Human Myocardium (EHM) is starting to demonstrate promising signs of clinical benefit after surgical application as Biological Ventricular Assist Tissue (BioVAT). Our findings may contribute to paradigm-shift in the treatment of advanced heart failure." said **Dr. Lothar Germeroth, Chief Executive Officer of Repairon**.

About Repairon
Repairon is a clinical-stage private German biotech company focused on developing a treatment for heart failure. The company was founded in 2014 on the pioneering work of

Professor Wolfram-Hubertus Zimmermann and his team, who have developed several tissue engineering technologies with documented applicability in organ repair. Repairon's lead therapeutic candidate, engineered heart muscle (EHM), is being evaluated in a Phase 1/2 clinical trial as Biological Ventricular Assist Tissue in Terminal Heart Failure (BioVAT-HF). Repairon maintains strong partnerships with the University Medical Center in Göttingen and the German Center for Cardiovascular Research (DZHK). The company is headquartered in Göttingen, Germany.

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[1] Induced Pluripotent Stem Cell