

## ***Artract Medical UG***

### **Business Strategies**

Artract is developing a fully implantable circulatory assist device for patients suffering from Heart Failure with preserved Ejection Fraction (HFpEF).

### **Core Technologies and Services**

Heart failure is a life-threatening disease with global health priority. Across the globe, 1-2% of the population is suffering of chronic heart failure. The main symptoms are breathlessness, reduced exercise tolerance, fatigue, weakness and lethargy. 17% of patients admitted to the hospital with heart failure die within 1 year of admission and ~50% die within 5 years of admission. The outlook for patients with heart failure is poor, and survival rates are worse than those of most cancers. Heart failure holds the third position in the cause of death statistics, ahead of breast, lung or abdominal cancer.

Heart Failure occurs mainly in two forms: Heart Failure with reduced Ejection Fraction (HFrEF) and Heart Failure with preserved Ejection Fraction (HFpEF).

Heart Failure with reduced Ejection Fraction (HFrEF), accounting for ~50% of heart failure patients, is characterized by thinning of the left ventricular walls, decreased systolic function (Ejection Fraction <math>\leq 35-40\%</math>) and enlarged left ventricular volume.

While patients with Heart Failure with preserved Ejection Fraction (HFpEF), suffer from the same symptoms, HFpEF is characterized by normal sized left ventricular cavity with thickened walls and preserved systolic function (Ejection Fraction  $\geq 40-50\%$ ). The root cause for heart failure symptoms in patients with preserved left ventricular function is disputed.

Artract Medical is developing a fully implantable circulatory assist device for patients suffering from HFpEF. The technology is based on a new understanding of the pathophysiology of Heart Failure with Preserved Ejection Fraction.