Recent Progress on Ventricular Assistive Devices based on contractile textiles.

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Implantable Ventricular Assitive Devices require a new type of actuation technology. The application poses several challenges in terms of technology integration, heat dissipation, biocompatibility and also power consumption.

The work conducted by ARQUIMEA in this area covers the development of a contractile textile based on shape memory alloy fibers that can be used to wrap the heart and hence construct an implantable ventricular assistive device. In this work, recent advances obtained by ARQUIMEA R&D department will be presented.