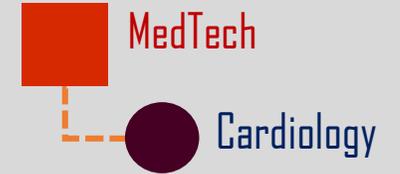


Safety and performance testing in a full-scale novel oxygenator



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SUMMARY

A membrane oxygenator is a device used to add oxygen to and remove carbon dioxide from the blood. It can be used to replace lungs in cardiopulmonary bypass, and to support lungs in long-term life support called ECMO. Current usage of such devices is associated with severe complications like subarachnoid hemorrhage, ischemic infarctions, or brain death. These complications are amongst others triggered by the high priming volume of current oxygenators.

The project aim is to prove safety and efficiency of a novel oxygenator concept which allows to reduce priming volume. If successful, this may pave the way for use of oxygenators for periods longer than 1 month, for future development of portable miniaturized oxygenators or even implantable artificial lungs.

PROJECT GOALS

- Translate an idea into the functional prototype
- Show superiority to conventional oxygenators
- Translate an idea to the cross-flow oxygenators

LONG-TERM GOALS

- Validation and proof of biocompatibility with blood tests and animal models
- License to industry