



## Reply to: Life cycle assessment of memsorb use

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The authors would like to thank Dr. Kalmar for his interest in our work, and we agree with his assessments: pollution with the Memsorb system as tested is clearly excessive, and this is further supported by the data presented by Dr. Kalmar. The purpose of our study was more a proof of concept, as stated in the manuscript: "...it is clear that the current technology is feasible but by no means ready for widespread clinical use". Memsorb is a technology under development, and improvements in membrane properties are clearly warranted. We also suggested that the environmental impact of inhaled anesthetics should be further reduced by combining the Memsorb with anesthetic agent scavenging and/or recycling technology or technology that decomposes waste gas into harmless, environmentally safe components. Life cycle analyses will define Memsorb's future role, and we thank Dr. Kalmar for emphasizing this.

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### Declarations

**Conflict of interest** The other authors declare that they have no conflict of interest.

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