Design of Artificial Lung Assist Device with Computational Fluid Dynamics

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An artificial implantable lung would be a useful device to support ARDS patients awaiting lung transplantation. In this study, the characteristic of fluid flow in the new type lung assist devices has been established using computational fluid dynamics (CFD). According to the modeling, it is believed that the tangential type module would be more beneficial to the fluid flow, and 2 ports would influence better than 1 port. However, such results are simple modeling by CFD, and therefore need to be confirmed by actual experiments.