

Keynote Talk: Building a Better Pump for Heart Failure Patients

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Abstract

Abbott's Mechanical Circulatory Support group build implants that help people suffering from heart failure, a deadly and increasingly common disease. We combine computational fluid dynamics and particle tracing simulations to optimize the designs of implantable blood pumps that replace the left heart function. In an example, we will showcase HeartMate 3™, a blood pump with a magnetically levitated rotor and arguably the most complex machine ever implanted into a human being.

<https://www.comsol.com/blogs/keynote-video-designing-improved-heart-pumps-with-simulation/>