

More than 5M people in the U.S. have aortic valve disease. Minimally invasive approach to aortic valve replacement (TAVR) have recently overtaken surgical valve replacement. 180,000 valve replacements are performed annually.

As of 2020, 24% of self expanding valves, and 9% of balloon-expanding valves, have complications that require permanent pacemaker implantation. Furthermore, coronary obstructions (1% of cases) are associated with 50% mortality.

We are developing a guidewire-based approach to TAVR, combined with intracardiac echocardiography to enable highly precisely placement of the aortic valve at the annulus, significantly improving outcomes and simplifying the procedure.