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## **Biomechanical assessment of the aortic root using novel force transducers**

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## **Abstract**

In recent years the use of valve sparing techniques has become more common in selected patients with aortic valve insufficiency. However, limited experimental research has been performed to document the biomechanical effect of these techniques. One experimental platform is to evaluate how the normal physiological aortic root forces are altered or re-established after the surgical intervention. Hence, the aim of this project was to develop new implantable force transducers for a biomechanical description of various aortic root repair techniques. Two novel force transducers were developed. Both transducers were manufactured using rapid prototyping and were instrumented with miniature strain gauges. Before

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