The future is here – next gen procedure planning for transcatheter-based structural heart interventions

Matthieu De Beule, CEO
What are transcatheter-based structural heart interventions ...
... and how are they currently planned?

**TAVI planning**
- Annulus
- STJ
- Coronary height
- ...  

**Final outcome and complications depend on complete device-patient interaction**

**TMVR planning**

Measuring anatomy is not enough to predict and avoid complications
TAVI is shifting from high to intermediate risk patients (75K patients in 2015 – 250K patients in 2020)

- Mild (58%) / Moderate (7%) Leakage – 1-year mortality doubled

- Conduction abnormalities post-TAVI (PPM – Permanent pacemaker placement) (up to 30%) – Extra cost of 6,300 €

\(^1\)Data from Belgian Technical cell (device + hospitalization)
HOW CAN TRANSCATHETER-BASED STRUCTURAL HEART DISEASE INTERVENTIONS BE MADE SAFER AND MORE EFFECTIVE?
Disruptive next gen procedure planning

Patient specific computer model of aortic root based on pre-operative CT

Mechanical behaviour of different tissue regions is incorporated

3D computer model transcatheter aortic valve

Mechanical behaviour of stent frame is taken into account

Prediction of valve morphology and function post-TAVI using physics-based simulations of tissue / device interaction

ADVANTAGES

- Unique insights can be obtained prior to the actual intervention
- Optimal device size and position can be selected for each patient

FEops TAVIguide™ is CE marked, the current release includes CoreValve, CoreValve Evolut R (Medtronic) and Lotus (Boston Scientific)
TAVIguide SAAS to hospitals
TAVIguide for device design
TAVIguide for device design

Now
- Computer
- Bench
- Animal

Future
- Virtual Patient
- Computer
- Bench
- Animal
- Human

Image courtesy of MDIC
TAVIguide for device design
FEops and its cutting-edge technology have the following competitive advantages

- It allows to predict and prevent complications for structural heart interventions without additional pre-procedural testing.

- It is the only available CE-marked simulation technology (for TAVI) and thus has the first mover advantage.

- Strong collaborative network with device manufacturers and key opinion leaders.

- Technology shows positive health economics.

- Fits within current clinical workflow.

- Has an experienced team with Rob Michiels as Chairman of the BoD.
Series B - Use of proceeds

The **Series B** financing will be allocated to

- Team expansion (R&D, operational, commercial)
- Strengthen clinical evidence
- Further strengthen IP of product portfolio
- Regulatory approval of portfolio products
- Develop and commercialize products in pipeline, in EU and US
‘Chance only favours the prepared mind’

- Louis Pasteur