The literature has shown that the graft design is useful in creating a suitable landing zone for stent-graft placement during the repair of diseased and damaged thoracic aorta and associated side vessels.  

Two radiopaque markers improve in vivo visualisation (e.g. when undertaking the “elephant trunk” procedure) 

The technique has potential for reduced morbidity and mortality vs. standard surgical approach.
The Lupiae™ Technique

ASCENDING AORTA, ARCH & DESCENDING aortic aneurysm 1, 2, 3

- The graft body is implanted to replace the ascending aorta and/or aortic arch, creating a suitable landing zone for stent-graft placement 1, 2, 3.
- The supra-aortic vessels are anastomosed as required 1, 2, 3.
- The side branch can be used for perfusion 1, 2, 3 (or anastomosed to the left subclavian artery).
- The side branch is ligated (or anastomosed to the left subclavian artery).

The Elephant Trunk Procedure Stage 1

The stent-graft is deployed in a retrograde direction assisted by the radiopaque markers to achieve complete exclusion of the aneurysm 1, 2, 3.

The Elephant Trunk Procedure Stage 2

- Antegrade flow facilitated by the side branch may offer:
  - Reduced incidence of temporary neurological deficits 6
  - Preventive effect against embolic stroke 7
  - Potential for reduced operating time 8

- The use of this type of procedure provides an alternative to open repair in high risk surgical patients with complex aortic pathology 9, 10, 11

SUPRA-RENAL THORACOABDOMINAL aortic aneurysm involving ascending aorta 1, 2, 3

- The graft body is implanted to replace the ascending aorta and/or aortic arch, creating a suitable landing zone for stent-graft placement 1, 2, 3.
- The supra-aortic vessels are anastomosed as required 1, 2, 3.
- The remaining branch is tunneled to the level of the visceral arteries 1, 2, 3.
- The tunneled branch is anastomosed* as required 1, 2, 3.
  *Please note - additional grafts may be needed.

The Elephant Trunk Procedure Stage 1

- The stent-graft is deployed in a retrograde direction assisted by the radiopaque markers to achieve complete exclusion of the aneurysm 1, 2, 3.

The Elephant Trunk Procedure Stage 2

- Radiopaque markers facilitate stent-graft visualisation and placement
  - Patented radiopaque marker design 1
  - Radiopaque markers improve in vivo visualisation (e.g. when undertaking the “elephant trunk” procedure) 1, 2, 3, 4
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References

5. European Patent Number: 1736116B1

Product designed in association with Dr. Giampiero Esposito, Chief of the Cardiovascular Surgery Department, Citta’ di Lecce Hospital, Lecce, Italy.