Navintis
Saving lives by redefining the frontiers of precision neurovascular interventions

In a nutshell
Microcatheters are thin, flexible tubes used to access narrow and hard-to-reach areas in the body. They are essential in treating vascular diseases such as aneurysms, or neurological conditions such as stroke or brain tumors. Despite the great strides made in this technology, however, there are major limitations when it comes to navigating the complexities of the brain's microvasculature. These tiny blood vessels are sometimes as narrow as a strand of hair. This makes it challenging for existing microcatheters to reach certain areas, leaving some conditions untreatable. Navinitis is revolutionizing the use of microcatheters and has solved a fundamental bottleneck in catheter miniaturization.

Why is our technology important?
In all surgeries, precision is key – particularly when it comes to navigating the human body's complex vascular system. Traditional microcatheters face limitations in both maneuverability and accessibility – they're simply too big to reach certain regions. This is especially problematic when it comes to working on the brain, where the anatomy of the vessels is particularly challenging and, any wrong move could have significant consequences. Navintis has fundamentally changed the way microcatheters function. Profiting from the body's natural pathways, we can deploy the world's smallest microcatheters through previously inaccessible arteries. Our technology combines blood flow, small-scale physics, and advanced remote magnetic guidance to give clinicians an unparalleled level of control. Surgeons can now safely and effectively reach areas of the brain that were previously inaccessible, opening up exciting new possibilities for life-saving treatments.

The benefits of our solution

Compared to current benchmark microcatheters, our technology:

- is 3x smaller
- Can navigate in arteries smaller than 0.4mm
- Is 100'000x more flexible
- Applies 1000x less force
- Is compatible with bi-plane fluoroscopy imaging

With our innovation, we are unlocking new surgical avenues for addressing hard-to-reach cerebrovascular diseases. We're expanding the range of microdevices available and giving hope to patients and families around the world.

Keywords
Microcatheterisation, magnetic steering, neuroradiology, brain microvasculature, cerebrovascular diseases

Founding Team

- Lucio Pancaldi: linkedin.com/in/lucio-pancaldi
- Ece Ozelci: linkedin.com/in/eceozelci

Get in touch
We'd love to speak to you more about our project.
You can book some time with us here: contact@navintis.com