Life Sciences, Health & Technology in South-Holland

Medical Delta Partners

Building upon the strength of Leiden Delft and Rotterdam

Core parnters

Universiteit Leiden

Leids Universitair Medisch Centrum

TU Delft

Erasmus MC

Erasmus Universiteit Rotterdam

provincie Zuid Holland

Gemeente Delft

Leiden

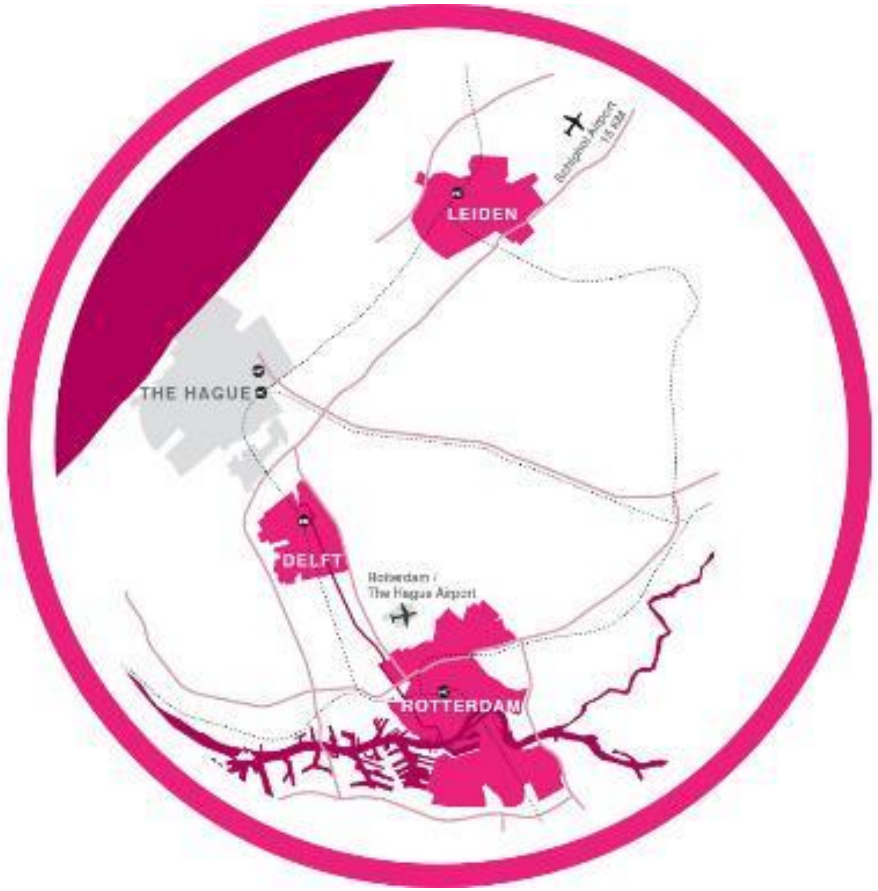
Gemeente Rotterdam

Hogeschool Rotterdam

De Haagse Hogeschool

hogeschool Leiden

inholland hogeschool



Participants

Innovation Quarter

Leiden

Erasmus MC Incubator

biopartner

TNO innovation for life

YES!Delft

Business Partners

> 400 innovative LSH&T companies in Medical Delta

Business partners

Development based on research

Imaging &
Image guided medicine

Molecular &
Cellular Technologies

Interventions
& Care

eHealth &
Self Management

Medical Delta Professors

Stimulating long term cooperation in science

TU Delft Delft University of Technology

Erasmus Universiteit Rotterdam

Erasmus MC Universitair Medisch Centrum Rotterdam

LUMC Leids Universitair Medisch Centrum

Universiteit Leiden

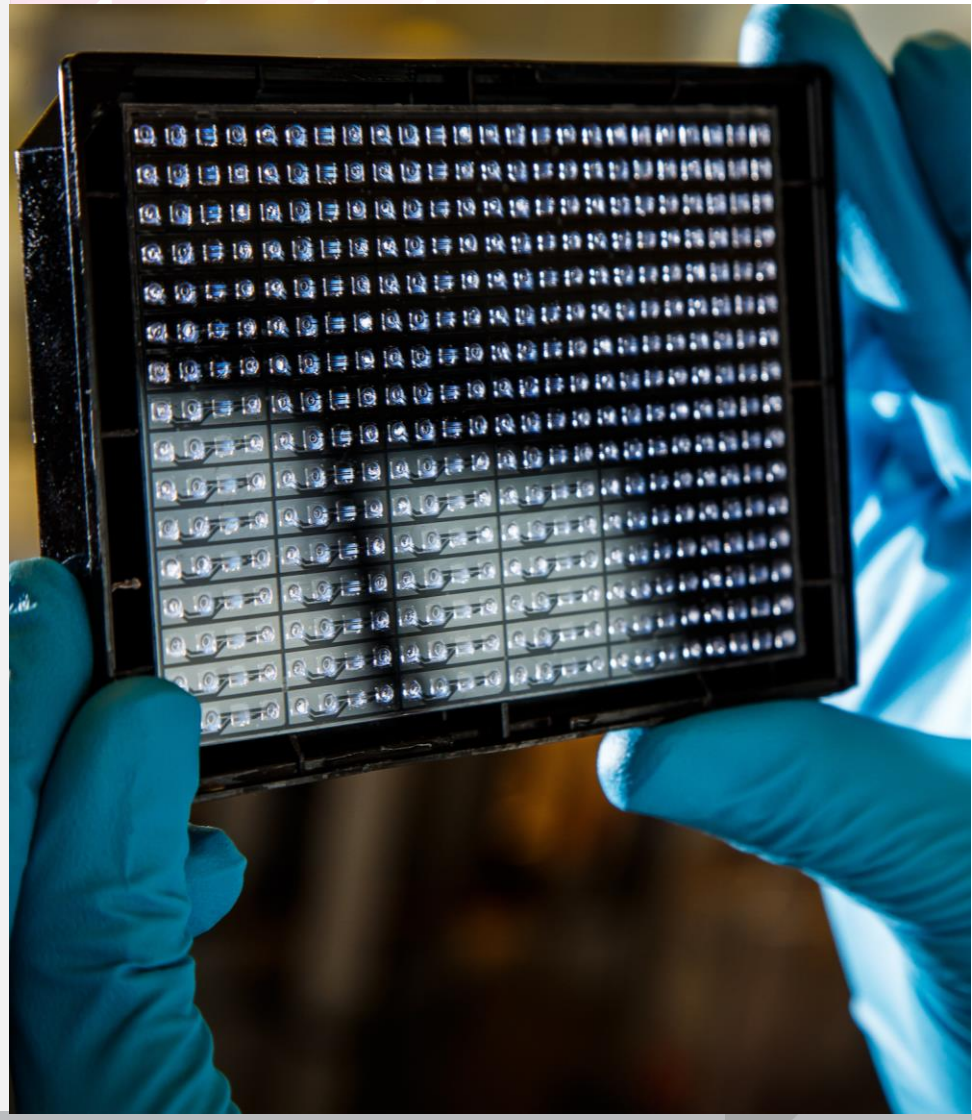
Created so far

Organs on a chip

Various human cell types in a proper ratio in 3D under real-life physical conditions, connected to sensors on a chip, including:

- **Brain** (Erasmus MC / Leiden University – Cock van Duin, Thomas Hankemeijer)
- **Vessels and heart** (TU Delft, LUMC, UTwente)
- **Tumours** (Erasmus MC, TU Eindhoven, Utrecht University)

For drug research, fundamental disease insights and later personal diagnosis and treatment



Created so far

Catheters to peek inside your arteries

Catheters combining laser and UltraSound

- Catheters that can look at shape and composition of plaques in arteries much better
- Preventing new operations after atherosclerosis treatment (57.000 per year in NL of whom 12 % returns within a year)
- Prototype tested in deceased people, ready for animal testing.
- Next step: take a biopsy during the scan

TU Delft Delft University of Technology

Erasmus University Rotterdam

Prof. Breedveld, Prof. Dankelman, Prof. Van der Steen
Awaz Ali (MSc) and Min Wu (MSc)

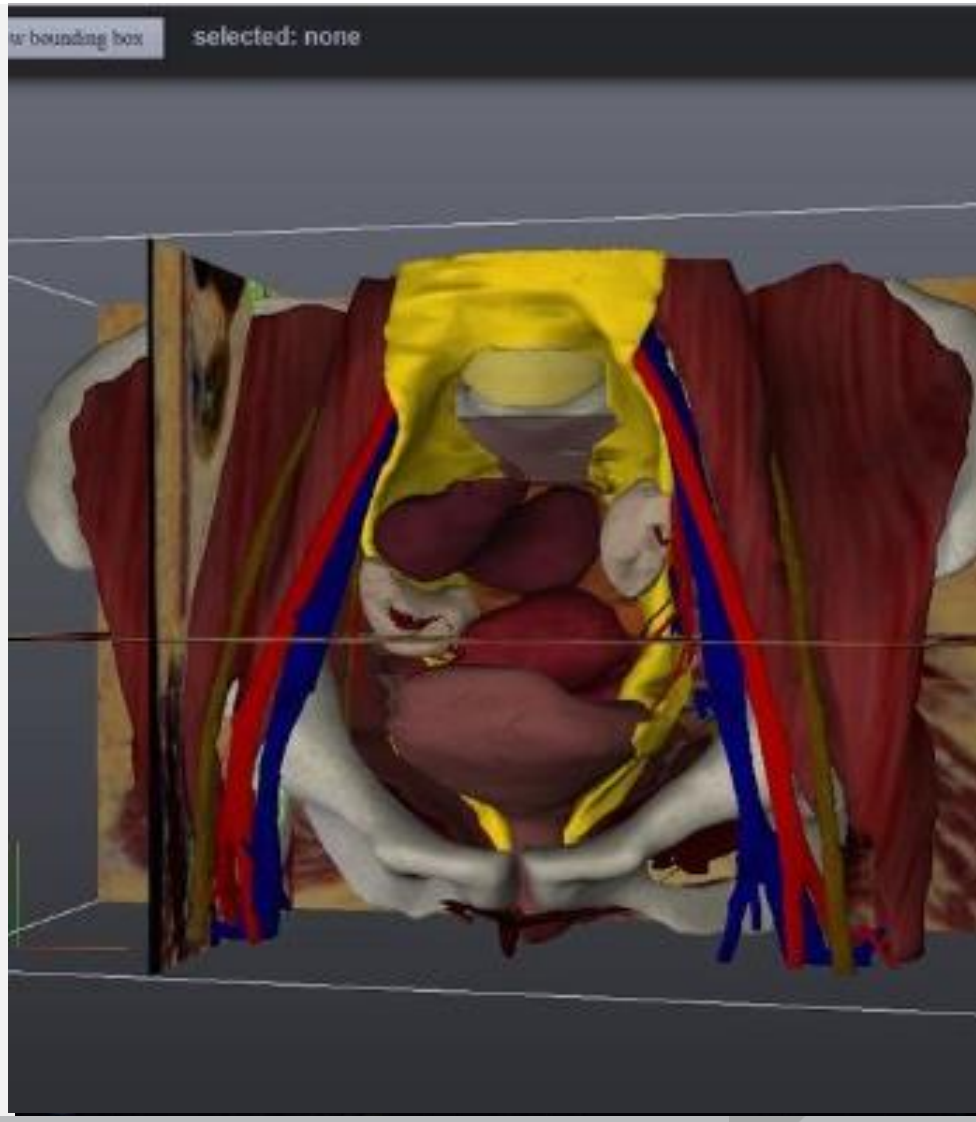
Created so far

3D model of the human pelvis

Pelvic nerves made visible:

reduced risk in surgery

- 3D model of nerves in pelvis area based on real anatomy.
- Used for training purposes by thousands of students worldwide
- Soon to be used for individual pre-operative planning by surgeons
- Preventing post-operative problems, such as incontinence or erectile dysfunction



TU Delft Delft University of Technology

LUMC Leids Universitair Medisch Centrum

Dr. Eisemann, Prof. Van der Velde, Prof. De Ruiter, Dr. Annelot Kraima Dr. Noeska Smit

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