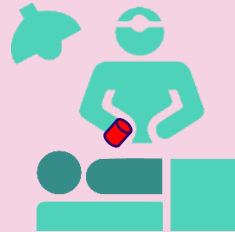
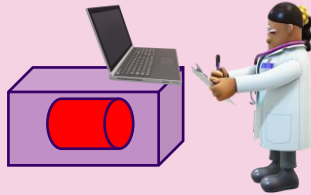


OrganAnalytics

Viability Analysis of Organ Transplants

Assessment of Transplant Status On the Spot in the Operating Theatre



FOR ORGAN TRANSPLANTS

Globally in 2018, estimated over 140 000 organ transplantations were performed (kidneys: 95 000; livers: 34 000; hearts: 8 000; lungs: 6 000; pancreases: 2 000; small bowel: 160). In Europe, on an average year, 41 000 patients are transplanted (63 % kidney, 24 % liver, 6 % heart), while 48 000 new patients are registered on waiting lists. In the USA in 2018, for example, 3755 kidneys (i.e., 17.9 % of the donated kidneys), 278 pancreata, 707 livers, 3 intestines, 23 hearts, and 317 lungs were discarded. There is a great and increasing need for more donated organs and salvaging as many harvested organs as possible.

We aim at salvaging the borderline organs that would otherwise be thrown away. For this, our technology will provide the transplanting surgeon data on the degradation status on the spot in the operating room.

Transplant quality data provided by our system should also prove valuable to hospitals for documenting that correct transplantation decisions have been made.

FOR ORGAN AND TISSUE REPLACEMENT THERAPY DEVELOPMENT

In the coming decades, laboratory-grown organs will become viable treatments to complement, and in time, replace organ transplantations. Similarly, laboratory-grown tissue replacements will eventually become de facto treatments of numerous brain and heart diseases, for example. However, in the basic and preclinical research towards organ and tissue replacement therapies using electrically active tissue replacements (such as neuronal or cardiomyocyte organoids), there is currently no method to assess the electrical activity inside a 3D piece of tissue or organoid. However, it would be crucial to know if the 3D piece or organoid was alive, i.e., electrophysiologically active.

With our technology, the electrical activity inside each 3D piece of tissue or organoid can be assessed during tissue replacement research and development and before implantation in preclinical work.

ABOUT OrganAnalytics

OrganAnalytics is preparing commercialization under Tampere University, Finland.

We are in the process of gathering comprehensive pre-commercialization intelligence and creating a proof of concept.

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[OrganAnalytics.com](https://www.organanalytics.com)



Team Leader

Jarno Tanskanen, Co-Inventor
Computational Biophysics and Imaging Group
 Tampere University
 jarno.tanskanen@tuni.fi

The Team

Donna Kivirauma, Business Developer
Jari Hyttinen, Active Advisor, Co-Inventor
Annika Ahtiainen, Experimentation Expert – Tissue Engineering
Mari Lehti-Polojärvi, Experimentation Expert – Organs
Ilmari Tamminen, Design Engineer