

# AIDHEART

## AI for the detection of heart transplant rejection

**Heart transplantation** is a treatment for selected patients with end-stage heart failure. Improvements in immunosuppressive therapies and patient management have increased the life expectancy of heart transplant patients. Despite this success, **rejection remains the "Achilles heel" of heart transplantation.** Biopsy and invasive coronary angiography are widely accepted as the gold standard for diagnosing acute graft rejection and chronic rejection. However, biopsies are invasive, and they carry a significant cumulative risk of complication.

**Magnetic resonance imaging (MRI)** is non-invasive, ionizing radiation-free, proven imaging method, which can provide accurate quantitative information on tissue composition.

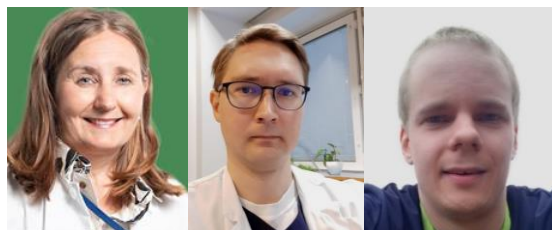
**Our solution** is to apply convolutional neural network (CNN) based deep learning (DL) methods to combine available MRI information in detecting patients at risk of acute rejection.

### The Team

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“We are looking for the SPARK project enabling us to package and deliver scientifically developed state-of-art solution”

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