

# **Evaluation of the reliability of Dynamic contrast- enhanced MRI in monitoring of tissue perfusion of free flaps**

THESIS

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By

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## List of abbreviations

**3D:** three dimensional.

**AMP:** adenosine monophosphate.

**ATP:** adenosine triphosphate.

**ATPase:** adenosine triphosphatase.

**ASL:** arterial spin labeling.

**Ca<sup>2+</sup>:** calcium.

**CA:** contrast agent.

**CEUS:** contrast-enhanced ultrasound.

**CL<sup>+</sup>:** chloride.

**CT:** computed tomography.

**DCE-MRI:** dynamic contrast enhanced- magnetic resonance imaging.

**DIEP:** deep inferior epigastric.

**DSC:** dynamic susceptibility contrast enhanced.

**EDCFs:** Endothelium-derived contracting factors

**EDRFs:** Endothelium-derived relaxing factors.

**ET-1:** Endothelin-1.

**ET:** echo time.

**FCD:** functional capillary density.

**FOV:** Field of View.

**fMRI:** functional magnetic resonance imaging.

**Fs:** fat saturation.

**Gd-DTPA:** Gadolinium diethylene triamine pentacetic acid

**GRE:** gradient echo.

**H<sup>+</sup>:** hydrogen.

**H<sub>2</sub>O<sub>2</sub>:** hydrogen peroxide.

**HOCl:** hypochlorous acid.

**IFM:** intravital fluorescence microscopy

**JIA:** juvenile idiopathic arthritis.

**Kg:** kilogram.

**LDF:** laser Doppler flowmetry.

**MHz:** megahertz.

**MPO:** myeloperoxidase.

**mm:** melimeter.

**MRI:** magnetic resonance imaging.

**Na<sup>+</sup>:** sodium.

**NADPH:** nicotinamide adenine dinucleotide phosphate.

**NHE-1:** Na<sup>+</sup>/H<sup>+</sup> exchange isoform-1.

**NIRS:** Near infrared spectroscopy.

**O<sub>2</sub>:** oxygen.

**OH:** hydroxyl radical.

**OPS:** Orthogonal polarization spectral.

**PET:** positron emission tomography.

**PGI<sub>2</sub>:** Prostacyclin.

**NO:** Nitric oxide.

**RF:** radiofrequency.

**ROI:** region of interest.

**RT:** repetition time.

**SD:** standard deviation.

## *List of abbreviations*

**SE:** spin echo.

**SPET:** Single photon emission tomography.

**SPSS:** statistical program for social science.

**Tc:** technetium.

**THRIVE:** T1 Weighted High Resolution Isotropic Volume Examination.

**TXA2:** thromboxane A2.



# ***Introduction***