

# Intravascular Optical Coherence Tomography — innovative technology for cardiovascular imaging in interventional cardiology

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## Abstract

Optical Coherence Tomography (OCT) is the latest development in cardiovascular imaging. It is a near-infrared (nIR) light based imaging modality whose central wavelength of light ranges from 1250 to 1350 nm. The use of light enables OCT to provide high-resolution images (10–20  $\mu\text{m}$ ) of the vessel wall. In OCT images one can fully assess the morphology (lipid, fibromatous, calcified, thrombus present) and length of atherosclerotic lesions as well as vessel lumen diameter and vessel wall structure. The technology enables optimization of percutaneous intervention procedures (PCI) involving stent implantation and post-stenting assessment. Since the introduction of the first OCT system to clinical practice in 2009, constant innovation of the OCT technology has been taking place. Intravascular high resolution imaging enables providing the highest standards in cardiovascular diagnosis and treatment.

## About the presenter

Dr hab. Magdalena Wawrzyńska is an interventional cardiologist and academic teacher at Wrocław Medical University. She is an act. Head of the Preclinical Research Department at Wrocław Medical University, Faculty of Health Sciences, and Head of the Catheterization Lab, Kłodzko County Hospital.