Author's response to reviews

Title: Diagnostic imaging equivalence testing comparing the Ocelot and the Dragonfly Optical Coherence Tomography Systems in an In-Vitro Superficial Femoral Artery Model

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Author's response to reviews:

I am writing to submit our manuscript ‘Diagnostic imaging equivalence-testing comparing the Ocelot and the Dragonfly Optical Coherence Tomography Systems in an In-Vitro Superficial Femoral Artery Model’ for consideration for publication in BMC Medical Imaging.

Albeit being a long-standing gold standard for visualizing the arterial lumen during interventions, angioplasty is often misinterpreting the composition of the treated arterial beds.

Subsequently, intra-vascular imaging, and in particularly Optical Coherence Tomography (OCT), enables accurate assessment of diseased arteries before and after intravascular intervention.

Ocelot OCT system is the only FDA approved device that utilizes OCT guidance to cross-chronic total occlusions (CTOs) while treating superficial femoral artery. Dragonfly OCT system is a stand-alone diagnostic device that has become a golden standard for assessment of healthy and diseased arterial architecture, prior and post vascular interventions.

The study reported in this article was designed to corroborate diagnostic imaging equivalence between the Ocelot and the Dragonfly OCT systems with regards to the intravascular features that are most important in clinical management of patients with atherosclerotic vascular disease.

Our findings demonstrate equivalence of image acquisition and consistent interpretation by physicians, in-spite of their distinct image processing algorithms and catheter configurations.

Because our findings could be applied in the clinic right away they are likely to be of a great interest to the scientists, researchers, clinicians, and trainees who read the BMC Medical Imaging journal.

The study was in compliment with the Declaration of Helsinki and the local research ethics committee approved the donation protocol as well as the
appropriate study utilization.
Thank you for receiving our manuscript and considering it for review. We appreciate your time and look forward to your response.