# Dear Bin He, Editor-in-Chief,

Please find attached a revised version of our manuscript TBME-00561-2016, “*Limitations of traditional models for perfusion”,* to be considered for publication in IEEE Biomedical Engineering. We have also attached point-to-point responses to the reviewers’ comments.

In the manuscript we have shown that within a synthetic data set, over-estimation of perfusion will occur using traditional models for perfusion when the models are applied voxel wise. This effect was also found within a real CT data set. In the revision, we have particularly focused on highlighting the novelty of our contributions. Specifically we have highlight the significance of our work for future voxel wise, clinical perfusion studies and extended the proof that CBV can still be recovered.

Lübeck 26th of August, 2016

Best regards

Constantin Sandman

(Corresponding author)