Self-Calibration Phenomenon for Near-infrared Clinical Measurements: Theory, Simulation and Experiments

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Supporting Information

Mourant[1] presented a MC simulation, for a higher range of reduced scattering coefficients, that showed path lengths do not depend on the scattering properties of the medium at a distance of $r_{IPL} = 1.7\ mm$ from the source (Supporting Information, Figure S1). They used lower wavelengths, which indicate higher reduced scattering coefficients, yielding a lower IPL point than our experiments.

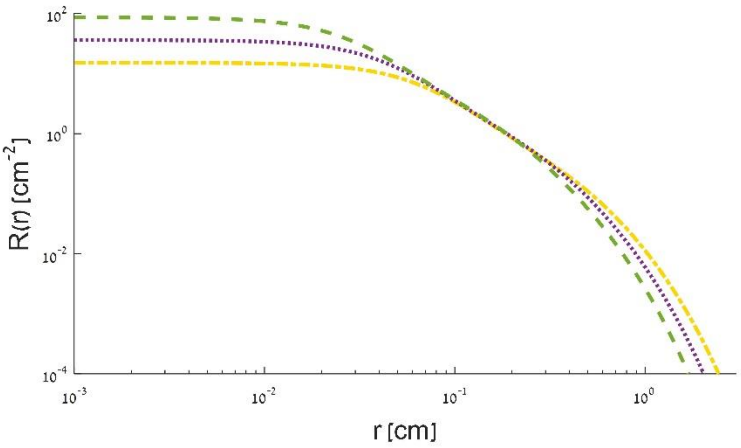

Figure S1: MC simulation of a crossing point, which is indifferent to changes in the scattering property (yellow dash-dot ,magenta dot ,green dash represent μ_s' of $14cm^{-1}, 21cm^{-1}, 32cm^{-1}$ respectively)

1. Mourant, J. R.; Bigio, I. J.; Jack, D. A.; Johnson, T. M.; Miller, H. D., Measuring absorption coefficients in small volumes of highly scattering media: source-detector separations for which path lengths do not depend on scattering properties. *Applied Optics* **1997,** *36* (22), 5655-5661.