

Table 2. Simulation mean volume (mm^3) (see Table 1) as a percentage of the true volume. The volume of each source was taken to be the connected volume enclosed by half the maximum value in the region, containing the location of the maximum value.

Noise	Source A			Source B		
	GN	NNLS	CSCG	GN	NNLS	CSCG
0%	43%	340%	74%	86%	740%	96%
1%	36%	290%	110%	72%	660%	150%
5%	26%	82%	57%	58%	330%	230%

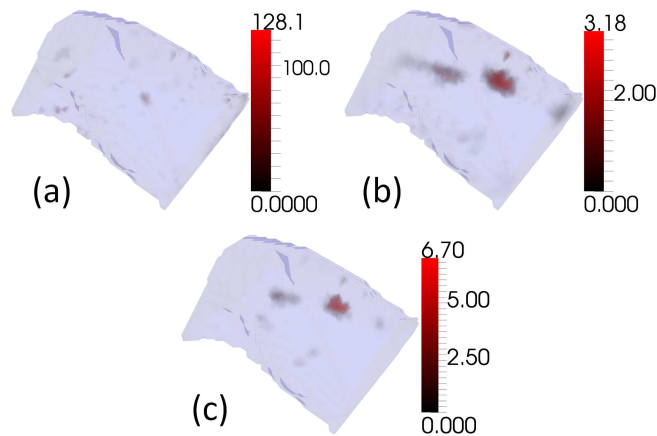


Fig. 6. Reconstructions of experimental measurements of an XPM-2 Phantom Mouse (Caliper Life Sciences, Hopkinton, MA, USA). (a)GN (b)NNLS (c)CSCG

need to empirically select regularisation values whilst still providing good quality reconstructions, which makes the reconstruction process more objective. However, CSCG does not necessarily converge on a global minimum, and is not optimised for efficiency, which are two areas for possible improvement.

CS improves reconstruction quality, and allows robust reconstruction from minimal data sets. Whether, and in what circumstances, BLT measurements are sufficient to allow true CS reconstruction is an open question. By design of instrumentation and measurement schemes to better satisfy the CS conditions, such as through optimisation of measurement location and wavelength, superior reconstruction fidelity is achievable.

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