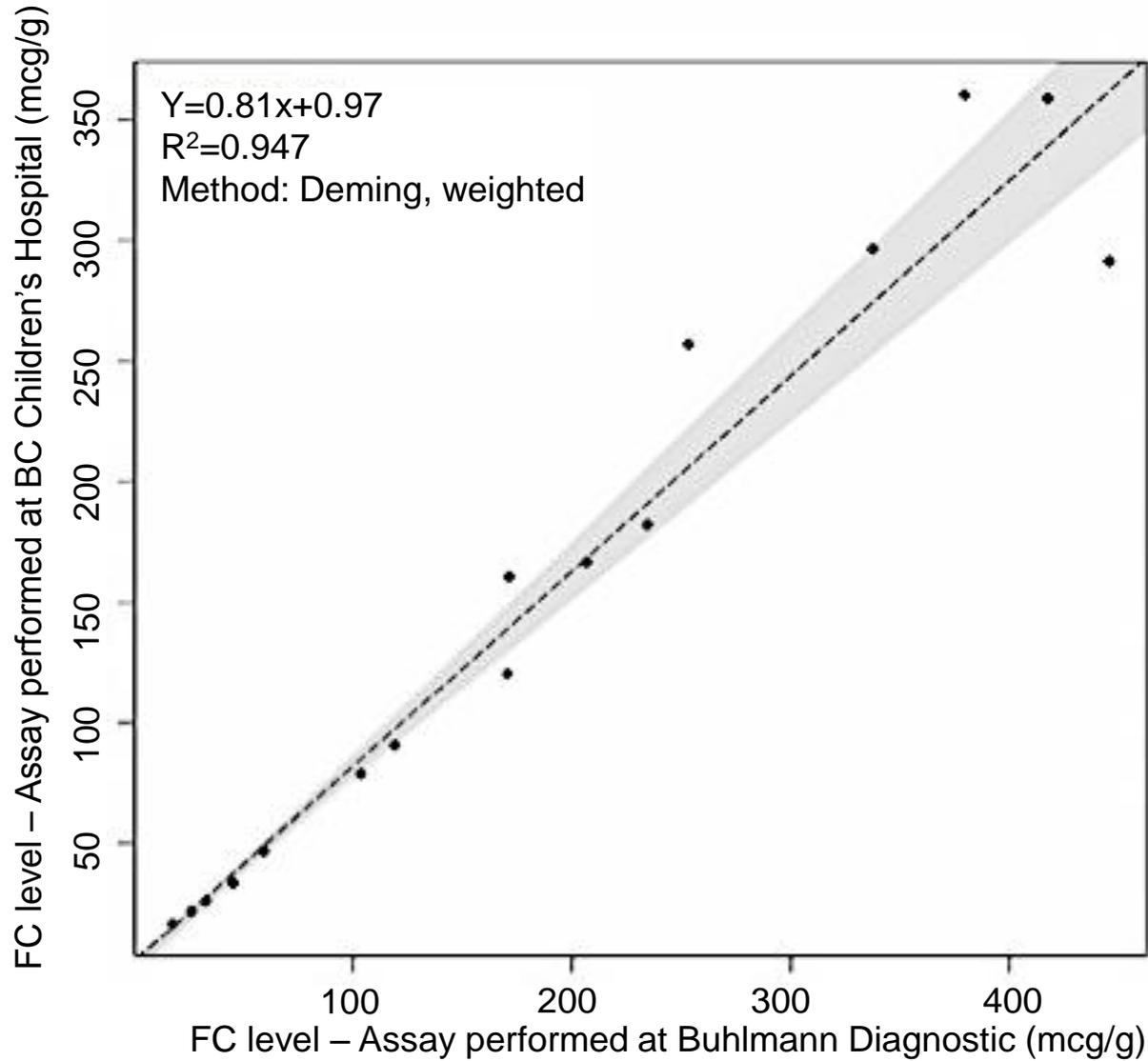## Supplementary material

Fecal calprotectin laboratory validation

Linearity and imprecision of the Buhlmann fCAL® ELISA was verified between 12 and 488 µg/g and intra-assay and inter-assay imprecision using a low and a high patient stool extract were found to be < 6.5% and 13.4%. To verify relative accuracy of results, comparator samples from Buhlmann Diagnostics (n = 16) in the lower range (< 500 µg/g) were compared in our laboratory. Deming regression analysis found a strong correlation between results obtained by the two laboratories (R-squared = 0.95; Supplemental figure 1). Additional comparator samples from Hôspital Maisonneuve-Rosemont in Quebec (n = 20) demonstrated strong correlation when compared to testing by our laboratory (R-squared=0.89; Supplemental figure 2). FC levels in the lower range (< 500 µg/g) correlated more closely than those in the upper range. Poorer correlation above 500 µg/g was due to a dilution step required to analyze samples, consistent with the vendor's product insert stating higher imprecision above 600 µg/g using the lower range procedure with dilution.
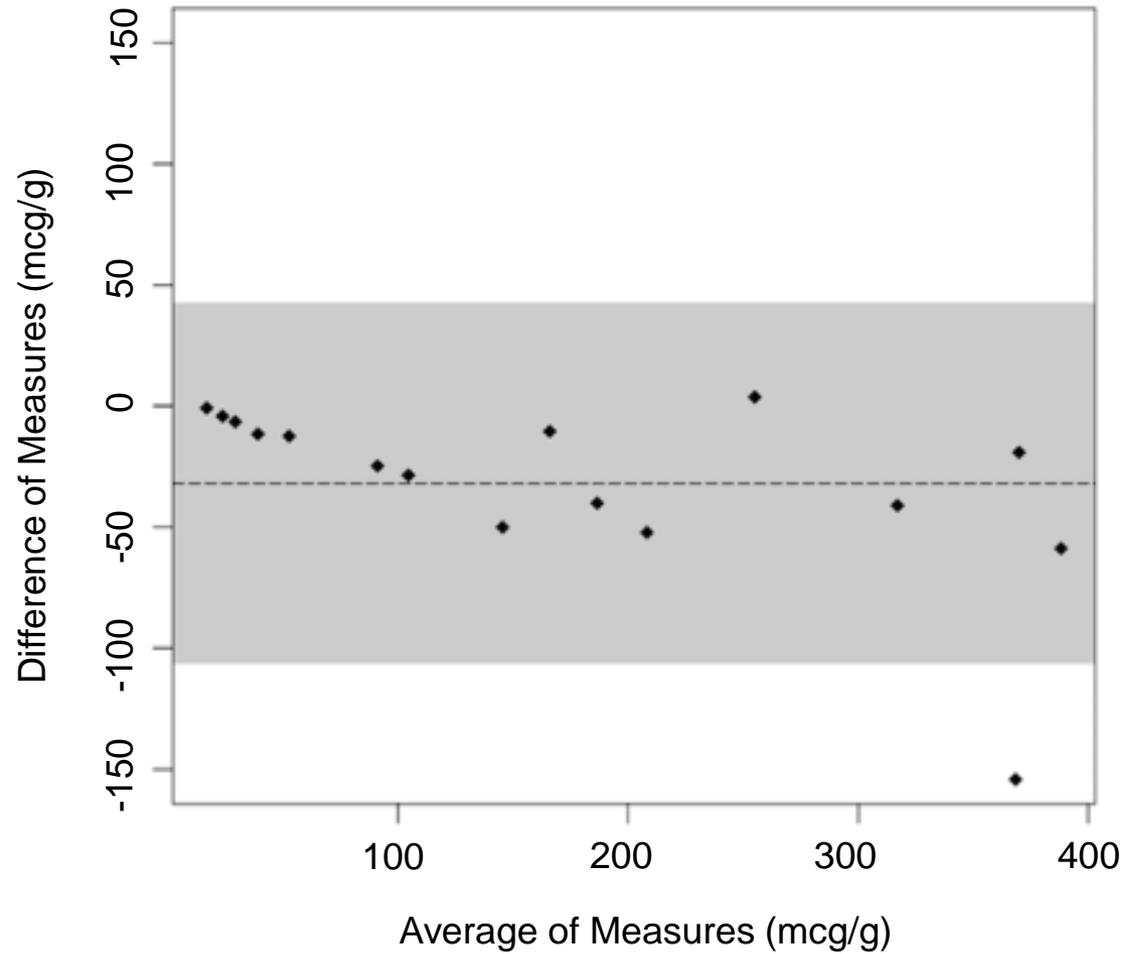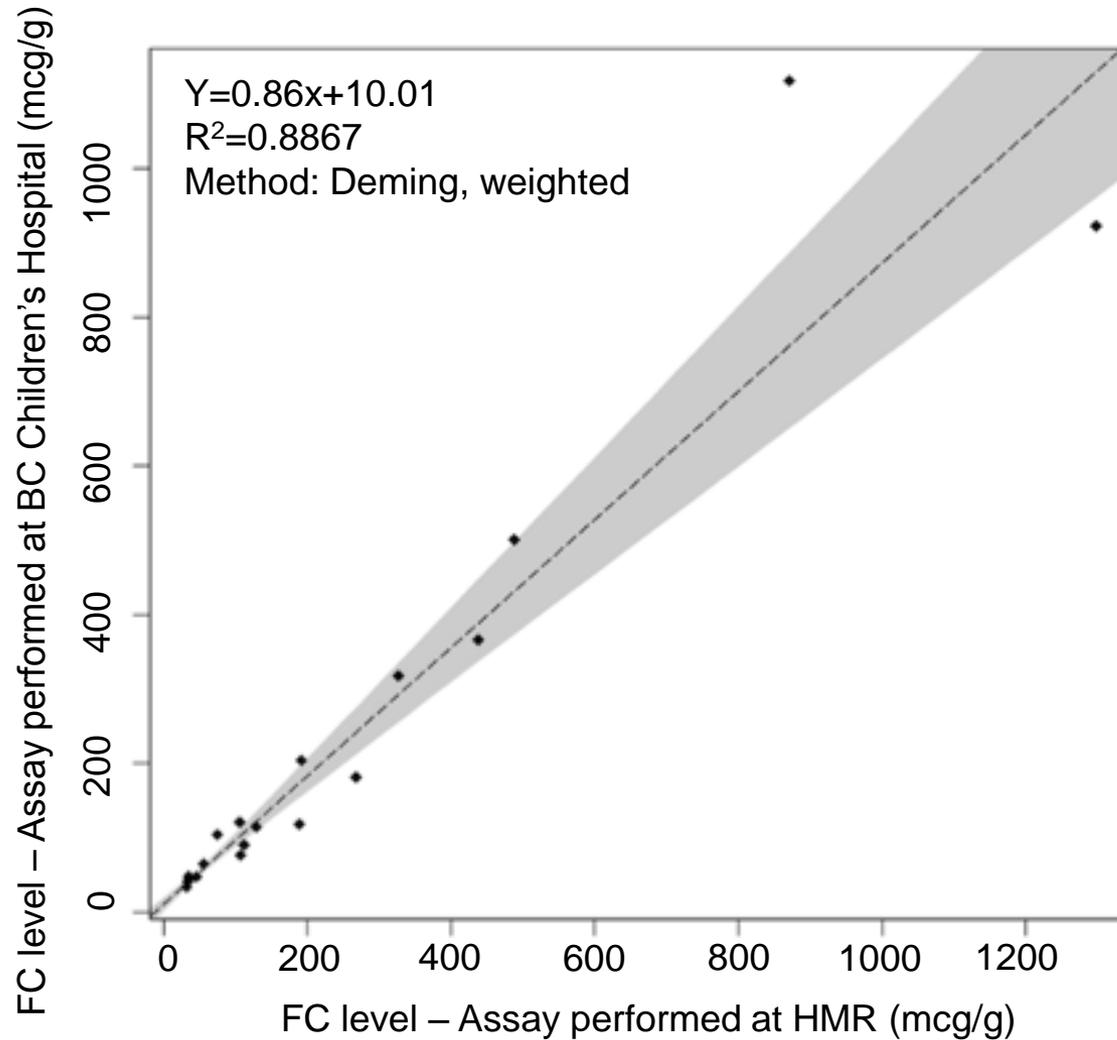
Supplemental Figure 1a

a)

Y=0.81x+0.97
R^2=0.947
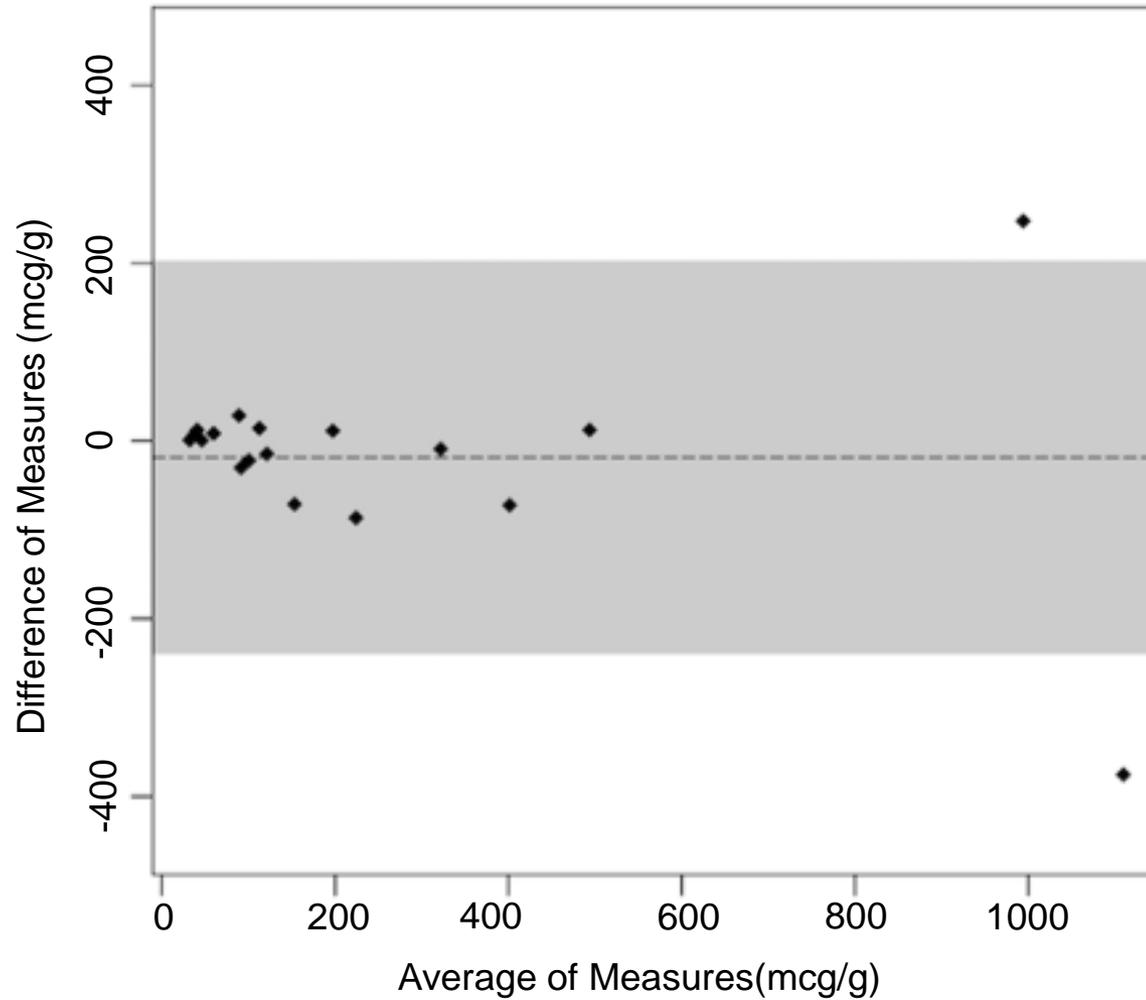Method: Deming, weighted

FC level – Assay performed at BC Children's Hospital (mcg/g)

FC level – Assay performed at Buhlmann Diagnostic (mcg/g)

Supplemental Figure 1b

Supplemental Figure 2a

a)

Y=0.86x+10.01
R^2=0.8867
Method: Deming, weighted

FC level – Assay performed at BC Children's Hospital (mcg/g)
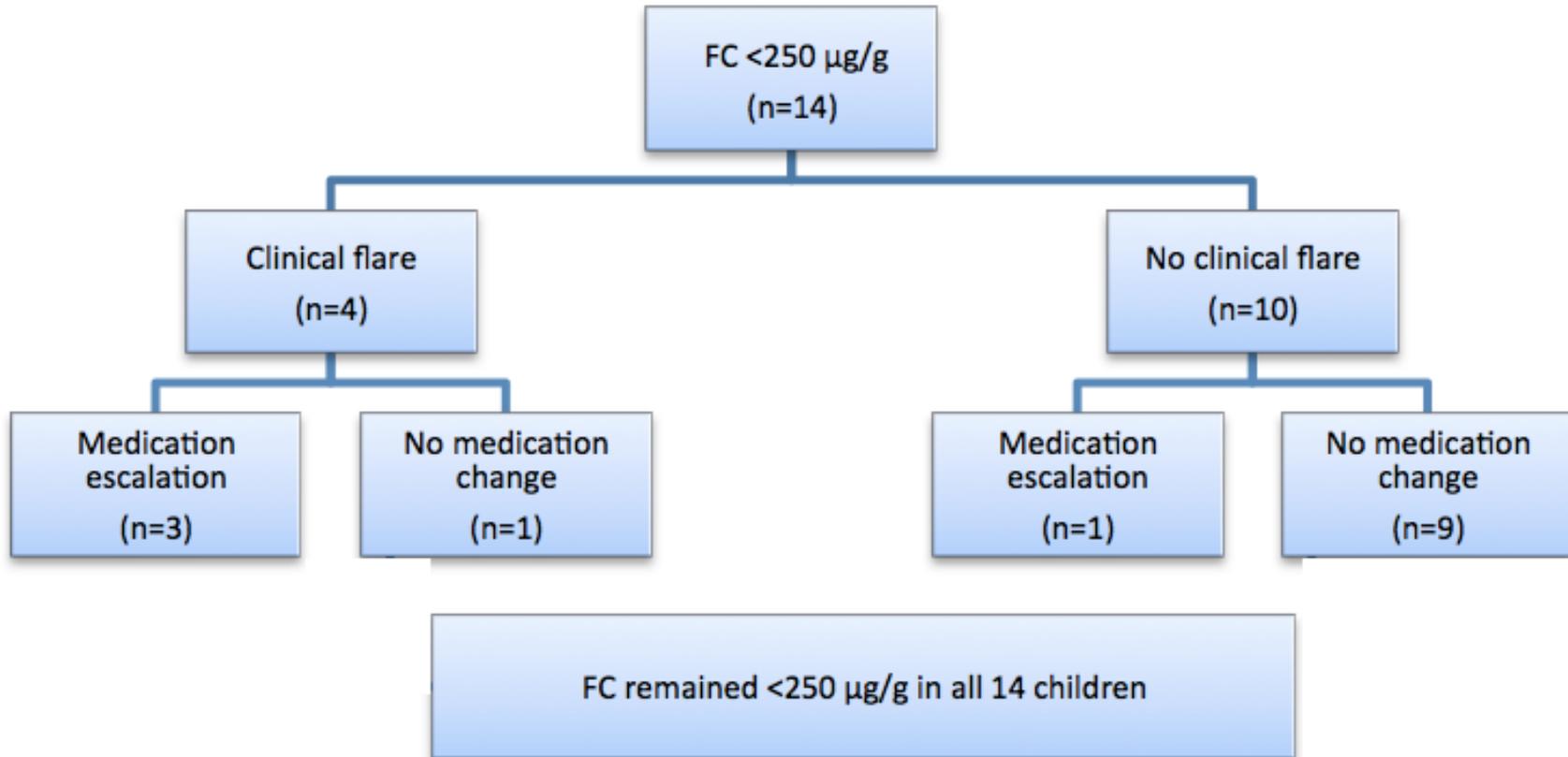
FC level – Assay performed at HMR (mcg/g)
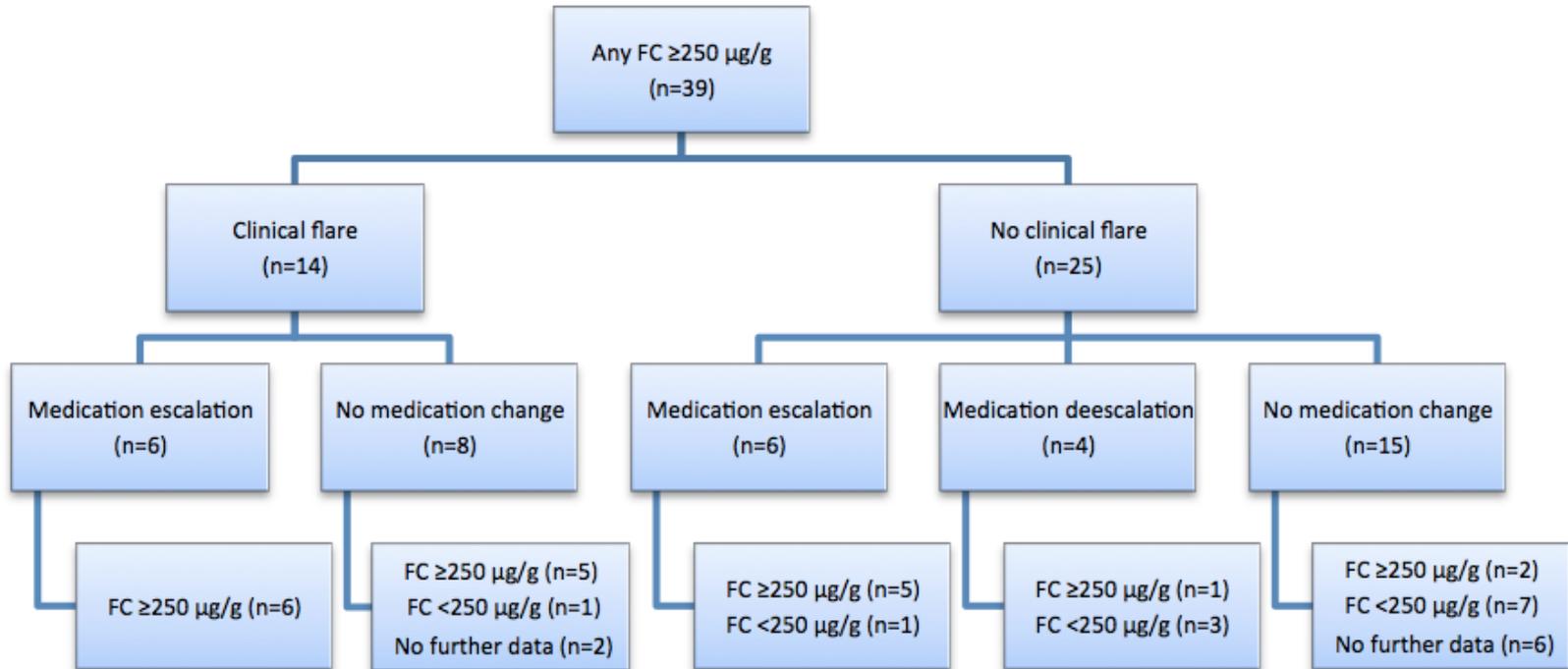
Supplemental Figure 2b

b)

Supplemental Figure 3

Supplemental Figure 4

Supplemental Table 1

Area under the receiver operator curve (AUROC) for predicting clinical disease relapse at 6- and 12-months post baseline for ESR, CRP and albumin

6 months		12 months	
	AUROC (95% CI)		AUROC (95% CI)
ESR	0.655 (0.513-0.797)		0.617 (0.49-0.744)
CRP	0.75 (0.602-0.897)		0.668 (0.454-0.881)
Albumin	0.781 (0.673-0.888)		0.762 (0.65-0.875)

CRP (c-reactive protein); ESR (erythrocyte sedimentation rate)