## ALZBIOMARKER

## Alzheimer's Disease vs Control: sTREM2 (CSF)

Meta-Analysis Results: TREM2 is a microglial transmembrane protein that is proteolytically processed to release a soluble fragment (sTREM2). Recently, several labs have reported elevated sTREM2 levels in the cerebrospinal fluid of people with Alzheimer's disease. Meta-analysis of available data finds sTREM2 levels are slightly higher in people with AD than in controls (effect size = 1.272, p < 0.0001). Currently there is insufficient data to meta-analyze sTREM2 in people with mild cognitive impairment, although there are hints in the literature that levels may rise early and peak prior to dementia.

ELISA

Electrochemiluminescence

SRM

Study	Effect Size (95 % CI)			AD	CTRL	Effect Size	Lower CI	Upper CI	% Weight	
	0.2	0.4 0.6	1 2	5	5					
Henjum, 2016			-	_	29	50	1.170	0.923	1.483	13.51
Henjum, 2016			-		25	25	1.077	0.842	1.378	12.98
Heslegrave, 2016			<u> </u>		24	16	1.294	1.034	1.618	14.35
Heslegrave, 2016			-		37	22	1.249	1.037	1.505	16.92
Piccio, 2016					73	107	1.204	1.027	1.410	19.09
Suárez-Calvet, 2016			-		200	150	1.539	1.381	1.715	23.15
All Studies			<b>\</b>		388	370	1.272	1.128	1.435	100
p<0.0001										
	0.2	0.4 0.6	1 2	5						

How to interpret a forest plot: Each individual effect size (ES) is a ratio of the mean biomarker level in one condition over the mean level in another condition. An ES equal to 1 means that the two conditions had identical mean values. An ES > 1 indicates higher levels in the first condition, whereas an ES < 1 indicates lower levels in the first condition. The overall ES, indicated by a black diamond, is a weighted average of the individual effect sizes. The weight of each data point was determined by the inverse of the variance and is reflected in the size of each square. The width of the overall ES diamond is determined by the 95 percent confidence interval. Data out of range of the scale, including ES and confidence intervals, are indicated by an arrowhead at the edge of the plot, when applicable.

