

**Data \*\***  
IL-1a (pg/ml)  
IL-6 (pg/ml)  
IL-8 (pg/ml)



**Step 1.** Log2 transform



**Step 2.** z-scale transformation based on  $\mu$  and  $\sigma$  estimates **Table S3**



**Step 3.** Compute coefficients from illness duration **Table 5**

$$Z(x) = \frac{x - \mu}{\sigma}$$

$$\alpha_i = \beta_{i,0} + \beta_{i,1} \times (\text{years ill}) + \beta_{i,2} \times (\text{years ill})^2$$



Coeff.  $\alpha_0, \alpha_1, \alpha_2, \alpha_3$



**Step 4.** Compute class score

$$ME/CFS \text{ Score} = \alpha_0 + \alpha_1 \times Z(IL-1a) + \alpha_2 \times Z(IL-6) + \alpha_3 \times Z(IL-8)$$



**ME/CFS Score > 0**



**ME/CFS confirmed**

\*\* measured on Q-Plex™ Human Cytokine - Screen (16-plex), Quansys Biosciences, Logan, Utah

Figure S2