

Model 3 - Multiple proteins, two groups (varying σ)

$$y_{ij} \sim N(\mu_{ij}, \tau_i)$$

$$\mu_{ij} = b_i X_{ij}$$

$$\tau_i = 1/\sigma_i^2$$

$$\sigma_i \sim \text{Unif}(0, 10)$$

$$b_i \sim N(0, 1e^{-12})$$