

## AlignBugTest2

$$\begin{aligned} & \left( (\boldsymbol{\mu}^T \boldsymbol{\Sigma}^{-1} | \alpha - \boldsymbol{\mu}^T \boldsymbol{\Sigma}^{-1} \mathbf{1}_d) - \mathbf{1}_{d+1}^T \right) \log(\mathbf{x}) \\ &= \left( \left[ \boldsymbol{\mu}^T \boldsymbol{\Sigma}^{-1} + \left( \frac{\alpha}{d+1} - \frac{\alpha}{d+1} \right) \mathbf{1}_d^T \middle| \left( \frac{d\alpha}{d+1} + \frac{\alpha}{d+1} \right) - \boldsymbol{\mu}^T \boldsymbol{\Sigma}^{-1} \mathbf{1}_d \right] - \mathbf{1}_{d+1}^T \right) \log(\mathbf{x}) \\ &= \left( \boldsymbol{\mu}^T \boldsymbol{\Sigma}^{-1} - \frac{\alpha}{d+1} \mathbf{1}_d^T \right) \mathbf{y} + \left( \frac{\alpha}{d+1} - 1 \right) \sum_{i=1}^{d+1} \log(x_i) \end{aligned} \quad (1)$$

\end{aligned}