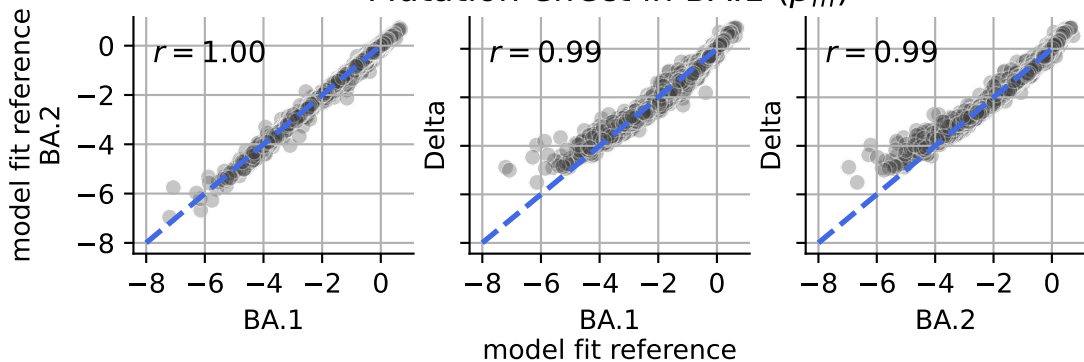
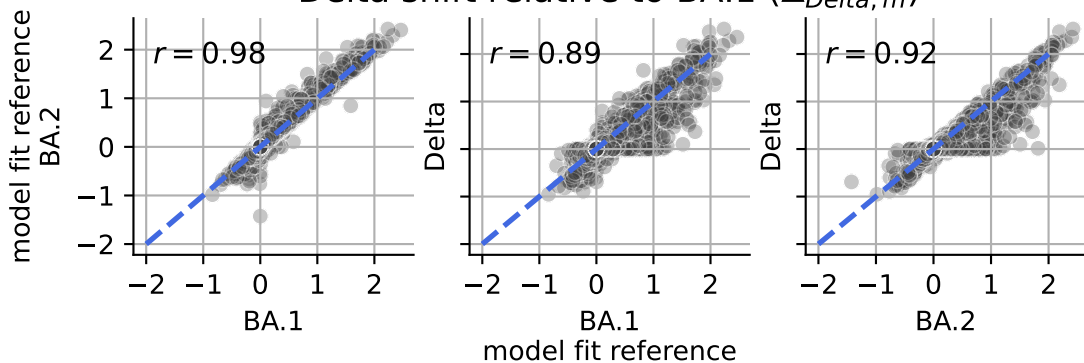


# **A** Mutation effect in BA.1 ( $\beta_m$ )



# **B** Delta shift relative to BA.1 ( $\Delta_{Delta,m}$ )



# **C** BA.2 shift relative to BA.1 ( $\Delta_{BA.2,m}$ )

