Supporting Information for

Interactions between Membranes and "Metaphilic" Polypeptide Architectures with Diverse Side-Chain Populations

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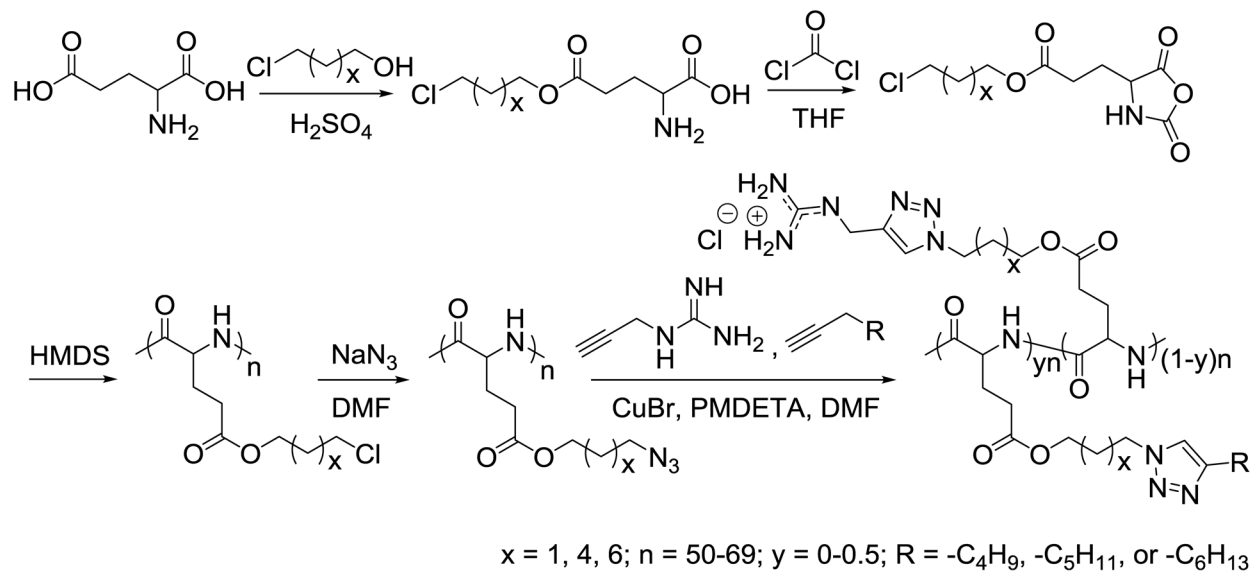*E-mail: gclwong@seas.ucla.edu

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File Contents

Scheme S1. Synthetic routes of metaphilic peptides.

Figure S1. Gaussian modulus $\bar{\kappa}$ and bending stiffness κ as functions of P/L.

$x = 1, 4, 6; n = 50\text{-}69; y = 0\text{-}0.5; R = \text{-}C_4H_9, \text{-}C_5H_{11}, \text{ or } \text{-}C_6H_{13}$

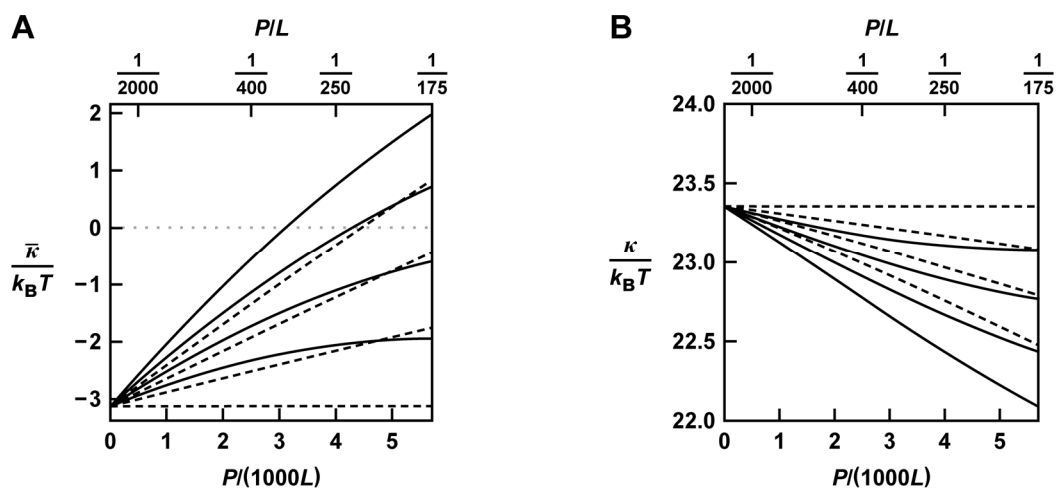**Scheme S1. Synthetic routes of metaphilic peptides.**

Figure S1. Gaussian modulus $\bar{\kappa}$ and bending stiffness κ as functions of P/L. Solid lines (calculated for $z_c = +35$) and dashed lines (calculated for $z_c = 0$) correspond to $v_P^{eff} = 15$ nm³, $v_P^{eff} = 10$ nm³, $v_P^{eff} = 5$ nm³, $v_P^{eff} = 0$ (from top to bottom in **(A)**, from bottom to top in **(B)**).