#### SUPPLEMENTARY MATERIAL

# Temperature responsive self-assemblies of "kinked" amphiphiles

Jennifer S. Squire,<sup>a</sup> Grégory Durand,<sup>b,c</sup> Lynne Waddington,<sup>d</sup> Alessandra Sutti<sup>e</sup> and

Luke C. Henderson<sup>a,e</sup>\*

<sup>a</sup> Strategic Research Centre for Chemistry and Biotechnology, Deakin University, Pigdons Road, Waurn Ponds Campus, Geelong, Victoria, Australia 3216

<sup>b</sup>Unité Mixte de Recherche 5247, Centre National de la Recherche Scientifique and Universités de Montpellier 1 &2,

Institut des Biomolécules Max Mousseron, Faculté de Pharmacie, 15 avenue Charles Flahault, F-34093 Montpellier Cedex 05, France.

<sup>c</sup>Université d'Avignon et des Pays de Vaucluse, Equipe Chimie Bioorganique et Systèmes Amphiphiles, 33 rue Louis Pasteur, F-84000 Avignon, France;

<sup>d</sup> CSIRO Materials Science and Engineering, Bayview Avenue, Clayton, Victoria, 3168, Australia.

<sup>e</sup> Institute for Frontier Materials, Deakin University, Pigdons Road, Waurn Ponds Campus, Geelong, Victoria, Australia 3216

\*Corresponding author. Email: <u>luke.henderson@deakin.edu.au</u>

- Page S2-S13 <sup>1</sup>H and <sup>13</sup>C NMR for all novel compounds
- Page S14 Representative output of DLS showing particle size distribution
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# 4,7-methano-1H-isoindole-1,3(2H)-dione,3a,4,7,7a-tetrahydro-2-[2-(2-hydroxyethoxy)ethyl] 6



### <sup>1</sup>H NMR Spectrum:



# 2-(2-(1,3-dioxo-1,3,3a,4,7,7a-hexahydro-2*H*-4,7-methanoisoindol-2-yl)ethoxy)ethyl 4methylbenzenesulfonate 7

# <sup>1</sup>H NMR Spectrum:





# 2-(2-(-5,6-dihydroxy-1,3-dioxooctahydro-1H-4,7-methanoisoindol-2-yl)ethoxy)ethyl 4methylbenzenesulfonate 8

# <sup>1</sup>H NMR Spectrum:





# 2-(2-(-5,7-dioxo-2-undecyloctahydro-6H-4,8-methano[1,3]dioxolo[4,5-f]isoindol-6-yl)ethoxy)ethyl 4-methylbenzenesulfonate 9

### <sup>1</sup>H NMR Spectrum:





# 2-(2-(-5,7-dioxo-2-pentadecyloctahydro-6H-4,8-methano[1,3]dioxolo[4,5-f]isoindol-6yl)ethoxy)ethyl 4-methylbenzenesulfonate 10

## <sup>1</sup>H NMR Spectrum:





# 6-(2-(2-((2-((2)-1,2-diphenylbut-1-en-1-yl)phenoxy)ethyl)(methyl)amino)ethoxy)ethyl)-2undecylhexahydro-5H-4,8-methano[1,3]dioxolo[4,5-f]isoindole-5,7(6H)-dione 11

## <sup>1</sup>H NMR Spectrum:





# 6-(2-(2-((2-(4-((Z)-1,2-diphenylbut-1-en-1-yl)phenoxy)ethyl)(methyl)amino)ethoxy)ethyl)-2pentadecylhexahydro-5H-4,8-methano[1,3]dioxolo[4,5-f]isoindole-5,7(6H)-dione 12

### <sup>1</sup>H NMR Spectrum:





# 2-undecylhexahydro-5*H*-6-(2-(2-azidoethoxy)ethyl)-4,8-methano[1,3]dioxolo[4,5-f]isoindole-5,7(6*H*)-dione 13

# <sup>1</sup>H NMR Spectrum:





# 2-pentadecylhexahydro-5H-6-(2-(2-azidoethoxy)ethyl)-4,8-methano[1,3]dioxolo[4,5-f]isoindole-5,7(6H)-dione 14

# <sup>1</sup>H NMR Spectrum:





# Ethanamine, 2-[4-[(1E)-1,2-diphenyl-1-buten-1-yl]phenoxy]-N,N-methyl-propargyl 17

## <sup>1</sup>H NMR Spectrum:





# 6-(2-(2-(4-(((2-(4-((Z)-1,2-diphenylbut-1-en-1-yl)phenoxy)ethyl)(methyl)amino)methyl)-1H-1,2,3triazol-1-yl)ethoxy)ethyl)-2-undecylhexahydro-5H-4,8-methano[1,3]dioxolo [4,5-f]isoindole-5,7(6H)-dione 18

<sup>1</sup>H NMR Spectrum:





6-(2-(2-(4-(((2-(4-((Z)-1,2-diphenylbut-1-en-1-yl)phenoxy)ethyl)(methyl)amino)methyl)-1H-1,2,3triazol-1-yl)ethoxy)ethyl)-2-pentadecylhexahydro-5H-4,8-methano[1,3]dioxolo[4,5-f]isoindole-5,7(6H)-dione 19

<sup>1</sup>H NMR Spectrum:







#### Representative DLS output demonstrating the particle size distribution of compound 19

#### Representative output for the determination of CAC's using pyrene encapsulation (Compound 19)



CryoTEM of 19 showing amorphous aggregates under TEM conditions



# Fused assembly of 18



# Correlogram from temperature studies

## Compound 1:























# Compound 2:

























# Compound 3:

























# Compound 4:











35 °C













# Compound 18:

























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