

## Self-assembled core-shell micelles from peptide-*b*-polymer molecular chimeras towards structure-activity relationships

Charlotte Drappier,<sup>§,a,b,c</sup> Hugo Oliveira,<sup>§,a,b</sup> Olivier Sandre,<sup>a,b</sup> Emmanuel Ibarboure,<sup>a,b</sup> Sophie Combet,<sup>d</sup> Elisabeth Garanger<sup>\*,a,b,c</sup> and Sébastien Lecommandoux<sup>a,b</sup>

<sup>a</sup> Université de Bordeaux, ENSCBP, 16 avenue Pey Berland, Pessac 33607 Cedex, France.

<sup>b</sup> CNRS, LCPO, UMR 5629, Pessac 33607, France.

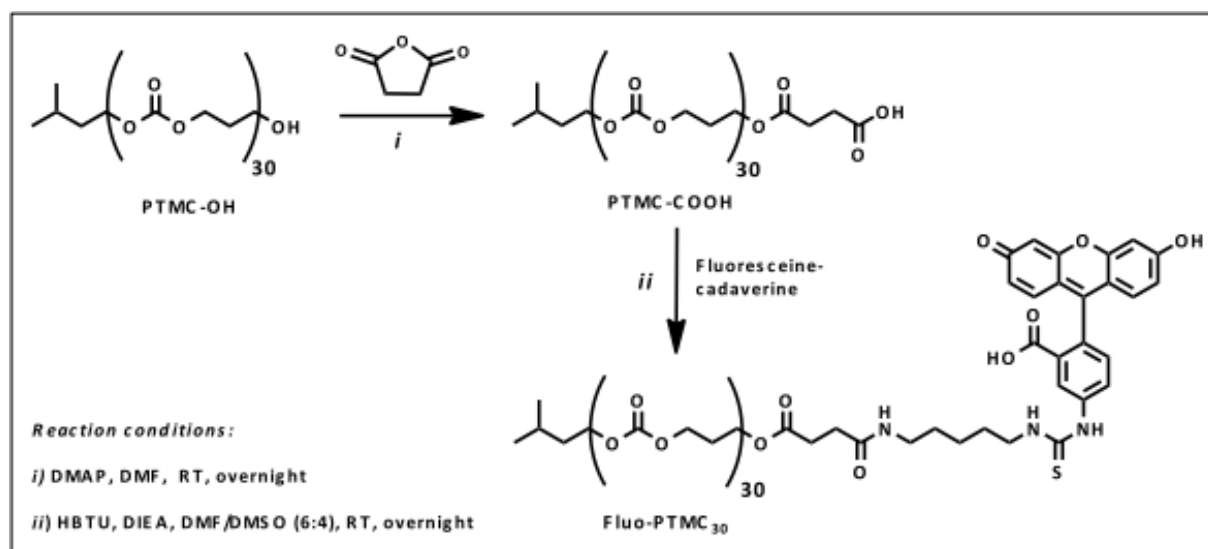
<sup>c</sup> Institut Européen de Chimie et Biologie, 2 rue Robert Escarpit, Pessac 33607, France.

<sup>d</sup> Laboratoire Léon Brillouin, CEA-CNRS UMR 12, CEA-Saclay, Gif-sur-Yvette 91191, France.

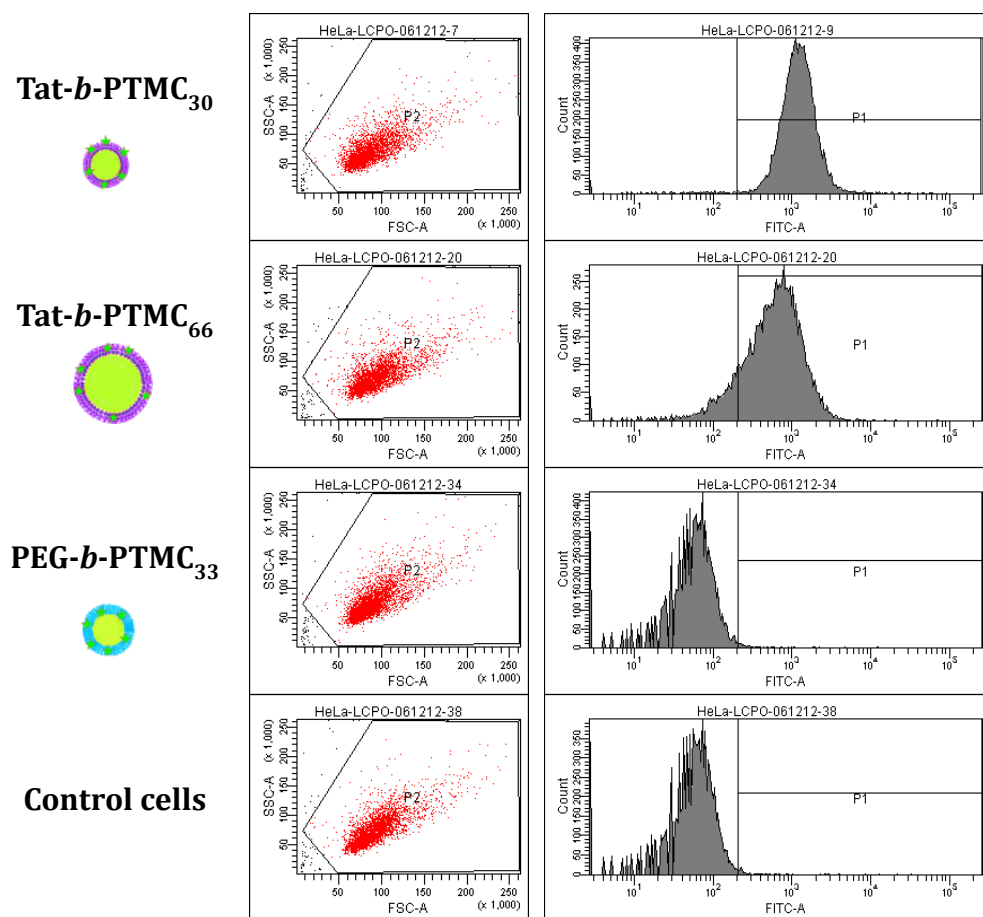
\* Fax: 33 54000 8487; Tel: 33 54000 3035; E-mail: [e.garanger@iecb.u-bordeaux.fr](mailto:e.garanger@iecb.u-bordeaux.fr).

§ Authors contributed equally to the work.

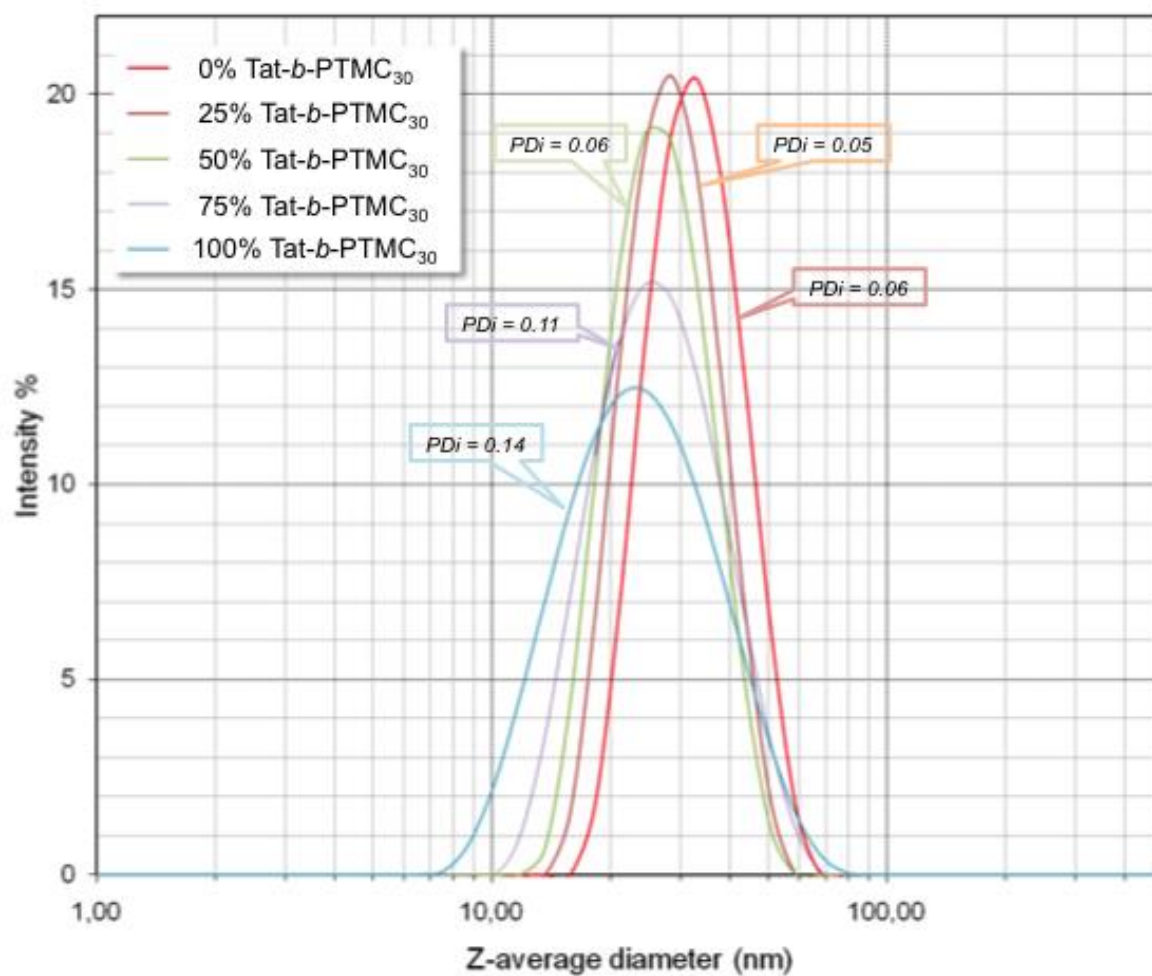
**Scheme S1** Two step-synthesis of Fluorescein-functionalized PTMC<sub>30</sub>



**Figure S1** Flow cytometry dot plots and histograms of HeLa cells after 30 min incubation with 50  $\mu\text{g}\cdot\text{mL}^{-1}$  fluorescein-labelled Tat-*b*-PTMC<sub>30</sub>, Tat-*b*-PTMC<sub>66</sub> and PEG-*b*-PTMC<sub>33</sub> nanoparticles.



**Figure S2** Light scattering intensity distributions and polydispersity indexes of mixed Tat-*b*-PTMC<sub>30</sub>/PEG<sub>2,000</sub>-*b*-PTMC<sub>38</sub> nanoparticles.



**Figure S3** Mean fluorescence intensity measured by flow cytometry of HeLa cells exposed for 30 min with fluorescein-labelled mixed Tat-*b*-PTMC<sub>30</sub>/PEG<sub>2,000</sub>-*b*-PTMC<sub>38</sub> nanoparticles at 50 µg.mL<sup>-1</sup>.

