



## Supplementary Materials

# A Self-Forming Hydrogel from a Bactericidal Copolymer: Synthesis, Characterization, Biological Evaluation and Perspective Applications

Silvana Alfei <sup>1,\*</sup>, Alessia Zorzoli <sup>2</sup>, Danilo Marimpietri <sup>2</sup>, Guendalina Zuccari <sup>1</sup>, Eleonora Russo <sup>1</sup>, Debora Caviglia <sup>3</sup> and Anna Maria Schito <sup>3,\*</sup>

<sup>1</sup> Department of Pharmacy, University of Genoa, Viale Cembrano, 16148 Genoa, Italy

<sup>2</sup> Cell Factory, IRCCS Istituto Giannina Gaslini, via Gerolamo Gaslini 5, 16147 Genoa, Italy

<sup>3</sup> Department of Surgical Sciences and Integrated Diagnostics (DISC), University of Genoa, Viale Benedetto XV, 6, 16132 Genova, Italy

\* Correspondence: alfei@difar.unige.it (S.A.); amschito@unige.it (A.M.S.); Tel.: +39-010-355-2296 (S.A.)

### Section S1

**Table S1.** Weights of gels at times T<sub>0</sub>-T<sub>9</sub>.

Time (min)	PD (g)	Swelling ratio (%)
T <sub>0</sub>	0	0.1713
T <sub>1</sub>	1	0.2426
T <sub>2</sub>	3	0.4852
T <sub>3</sub>	5	1.1704
T <sub>4</sub>	10	2.3408
T <sub>5</sub>	30	2.3980
T <sub>6</sub>	60	2.6823
T <sub>7</sub>	90	2.5831
T <sub>8</sub>	120	2.6800
T <sub>9</sub>	180	2.6680



(a)



(b)

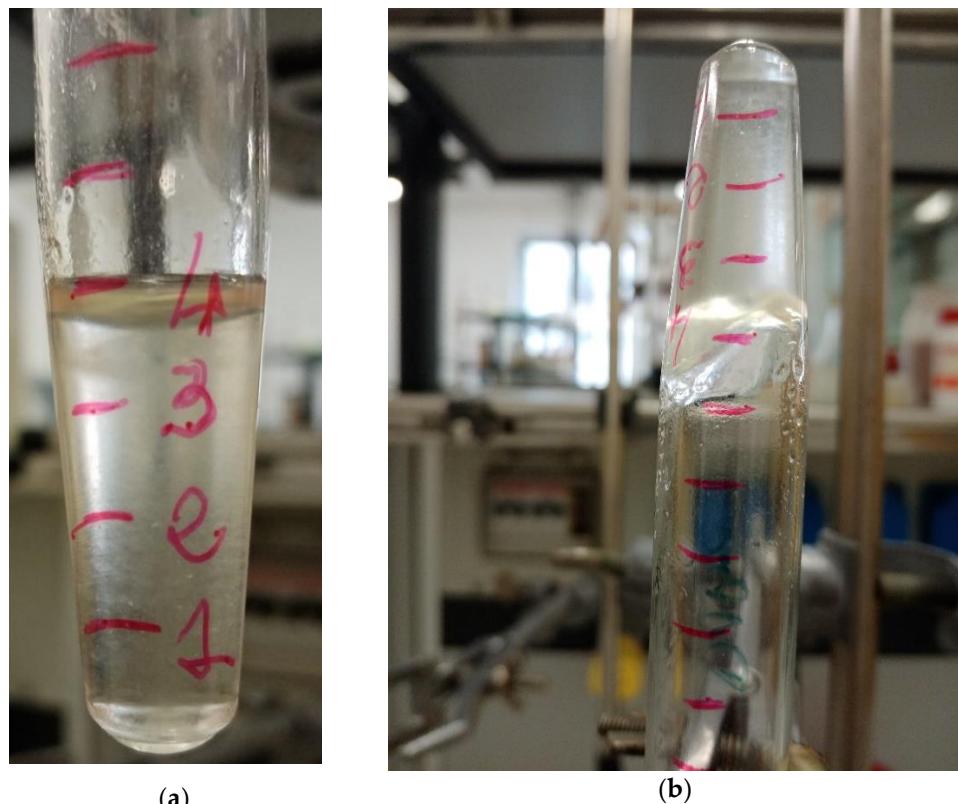


(c)



(d)

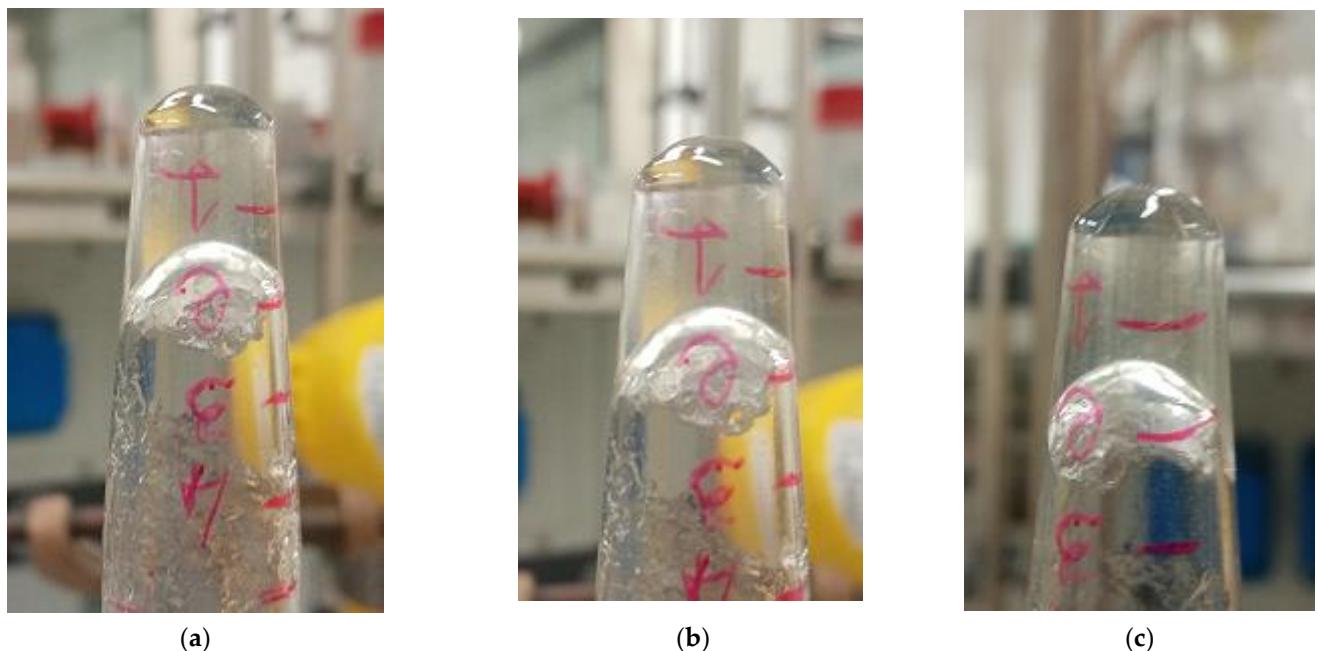
**Figure S1.** Appearance of CP1\_1.1-Hgel at the time  $t_0$  of the experiments carried out to monitor the water loss in time when deposited in the PD (a) and in Ws of the 24-wells plate (b); appearance of the fully dried samples (time  $t_x$ ) in the PD (c) and in the Ws (d).



(a)

(b)

**Figure S2.** Appearance of swollen CP1\_1.1-Hgel obtained hydrating the lyophilized gel (1 mL; 91.3 mg) with an excess of 11 mL of water and recovered by centrifugation at 4000 rpm for 25 min, obtaining a CP1-gel at concentration 30.3 mg/mL (3.0 % wt/v) test tube in normal vertical position (a); inverted position (b).



(a)

(b)

(c)



(d)



(e)

**Figure S3.** Appearance of 1 ml of CP1-Hgel (3.0% wt/v) in the inverted position just prepared (a), after 1 (b), 2 (c), 3 (d) and 4 months (e) from first preparation staying at room temperature.