SUPPORTING INFORMATION

Cytosine-functionalized bioinspired hydrogels for ocular delivery of antioxidant transferulic acid

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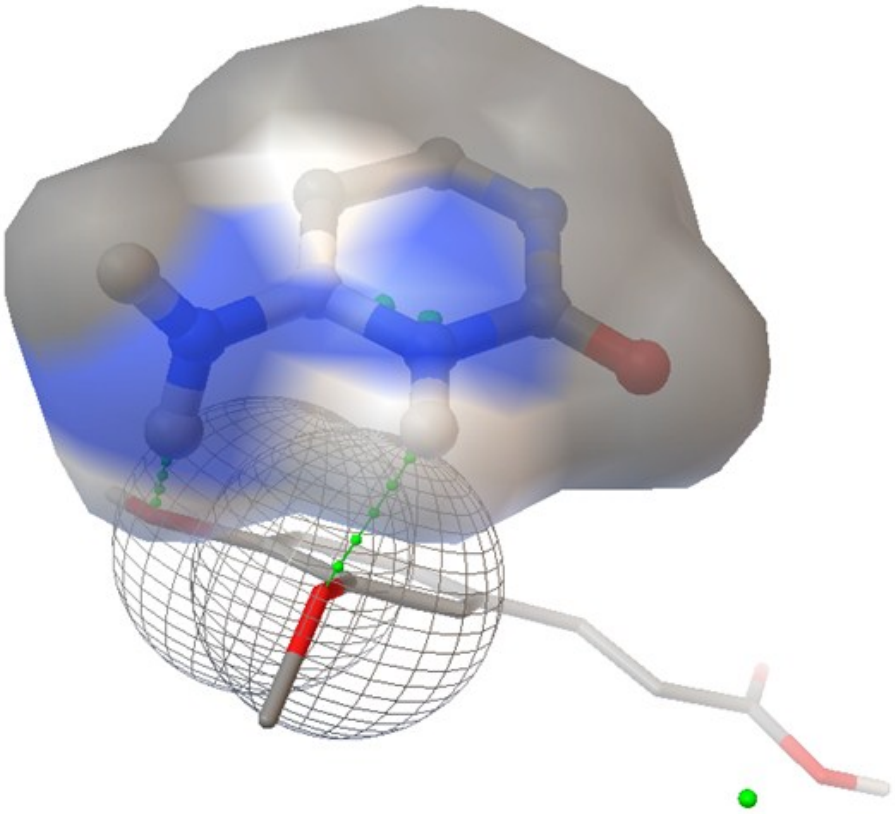

Fig. S1. AutoDock modelling of cytosine-TA interactions (AutoDock 4.2; The Scripps Research Institute, La Jolla, CA, USA). Estimated free energy of binding -2.21 Kcal/mol.

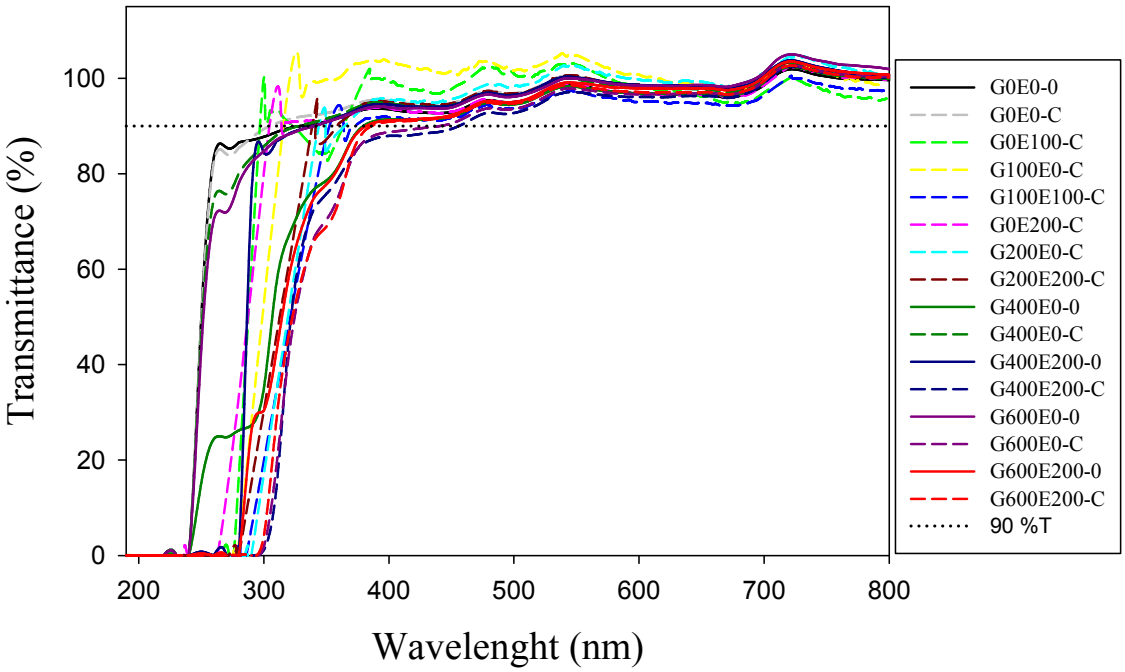

Fig. S2. Light transmittance patterns recorded for hydrogel discs before (continuous lines) and after (dashed lines) functionalization with cytosine after swelling in SLF. Acceptance value of 90% transmittance is shown as a dotted line.

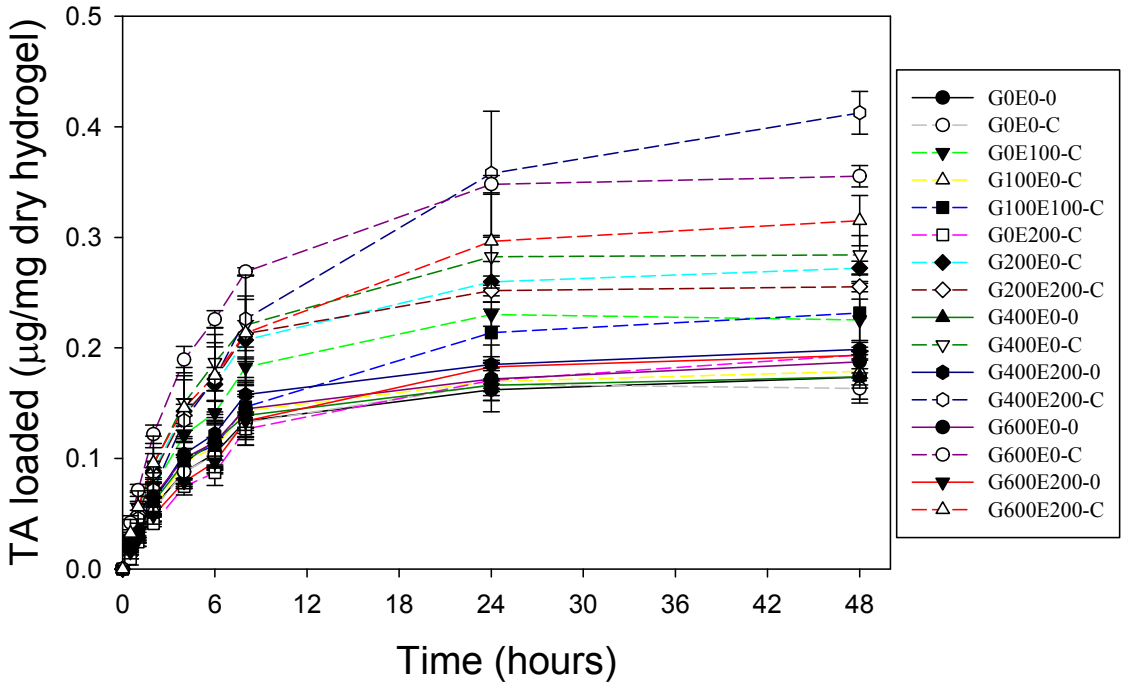

Fig. S3. Amount of TA loaded by hydrogel discs before (continuous lines) and after (dashed lines) functionalization with cytosine during soaking in a 5 mL of aqueous solution of TA (0.01 mg/mL) prepared with 0.05% EDTA, at 25 ºC. Mean values and standard deviations (n=3).

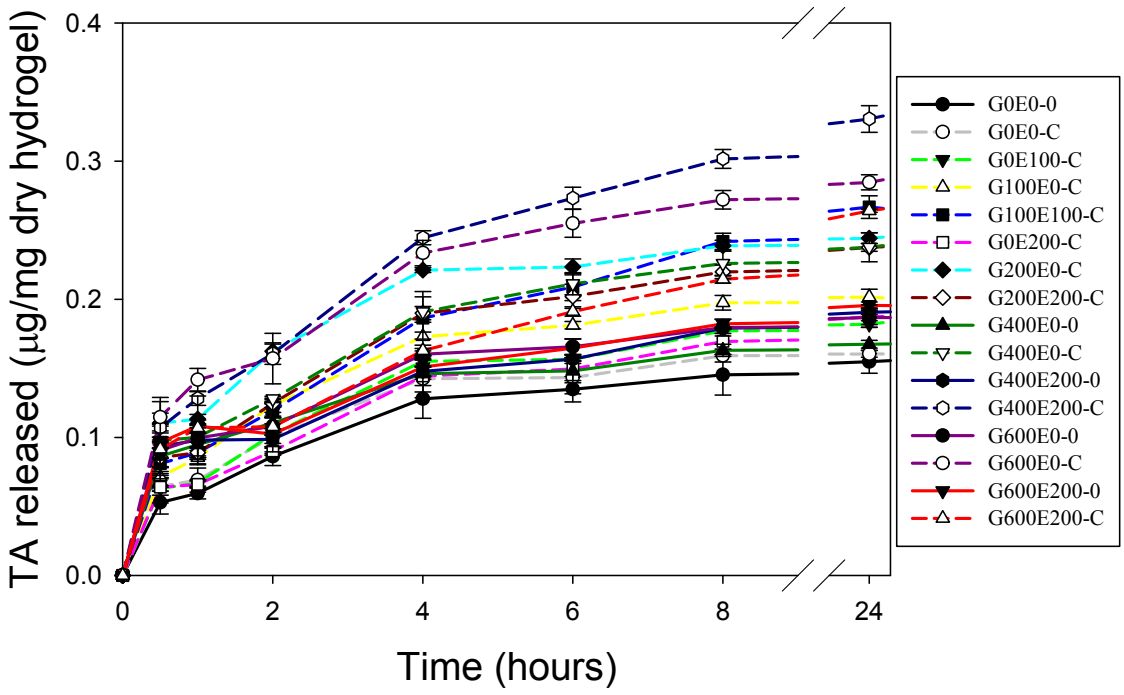

Fig. S4. Amount of TA released in simulated lachrymal fluid at 35 ºC by non-functionalized (continuous lines) and cytosine-functionalized (dashed lines) hydrogels (loaded with the amounts shown in Fig. S2). Mean values and standard deviations (n=3).

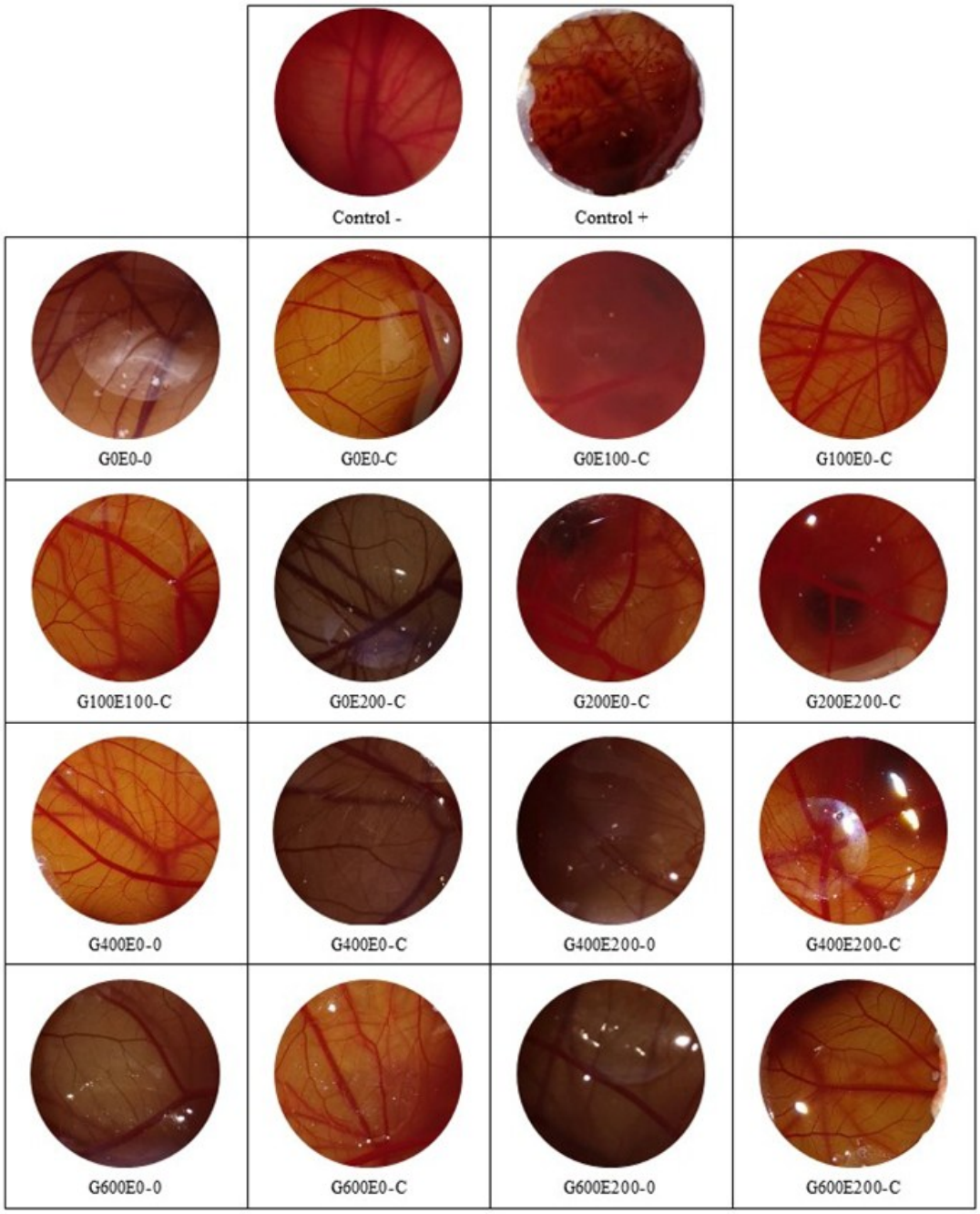

Fig. S5. Pictures of choriallantoic membranes during the HET-CAM test after 5 min contact with TA-loaded non-functionalized and cytosine-functionalized hydrogels. Control – and + refer to 0.9% NaCl and 0.1 N NaOH solutions, respectively.