Supplemental material

Table S1. Parameters employed to prepare PLGA microparticles.

Formulation	First Emulsion		Stirring rate (rpm)	Mean volume diameter (µm) ± SD	Recovery (%)
	Aqueous phase	Organic phase (dichloromethane)			
	Volume (mL)	Volume (mL)			
a	-	15	500	35.3 ± 35.4	90.0
b	-	10	500	43.7 ± 27.5	-
c	-	5	500	75.0 ± 36.3	76.0
d	-	2.5	500	134.4 ± 84.9	78.6
e	-	1	500	-[a]	79.4
f	1	2.5	700	-[a]	78.0
g	1	3.5	700	202.7 ± 99.9	75.6
h	1	3.5	600	251.0 ± 104.3	76.3
i	1.5	3.5	600	153.5 ± 86.9	87.6

For all the formulations, 500 mg of PLGA were added to the organic phase.
The external phase is constituted by 500 mL of PVA 0.1% (w/v) for all the formulations.
In case of the double emulsion (from formulation f to i), 0.1 % of Span® 60 was used to stabilize the first emulsion.
[a] Microparticles were too large to perform dimensional analysis.

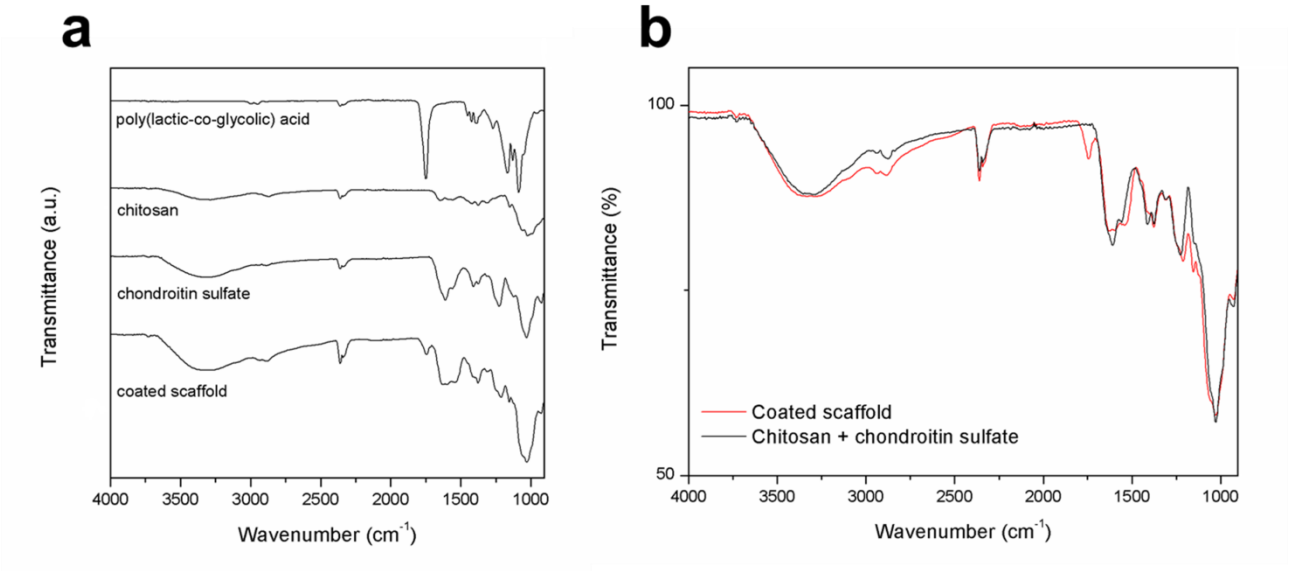

Figure S1. Attenuated total reflectance-Fourier transform infrared (ATR-FTIR) spectra of (a) the raw polymers (i.e., PLGA, chitosan, and chondroitin-4-sulphate) and the scaffold coated with chitosan and chondroitin-4-sulphate; (b) comparison between the spectra of the coated scaffold and the sum of the chitosan and chondroitin-4-sulphate spectra.

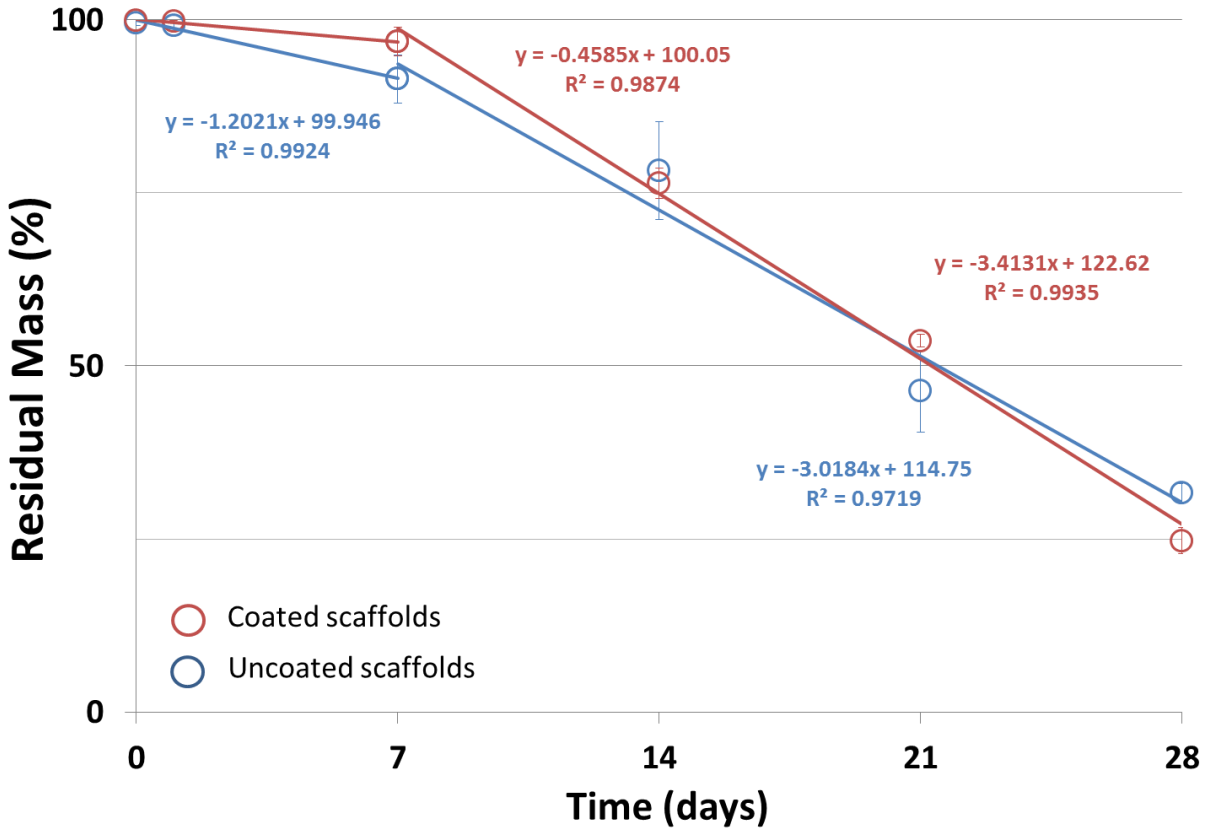

Figure S2. Residual mass profiles of uncoated and coated scaffolds. Equations and correlation coefficients are referred to the trend lines.