

## Supplementary Information

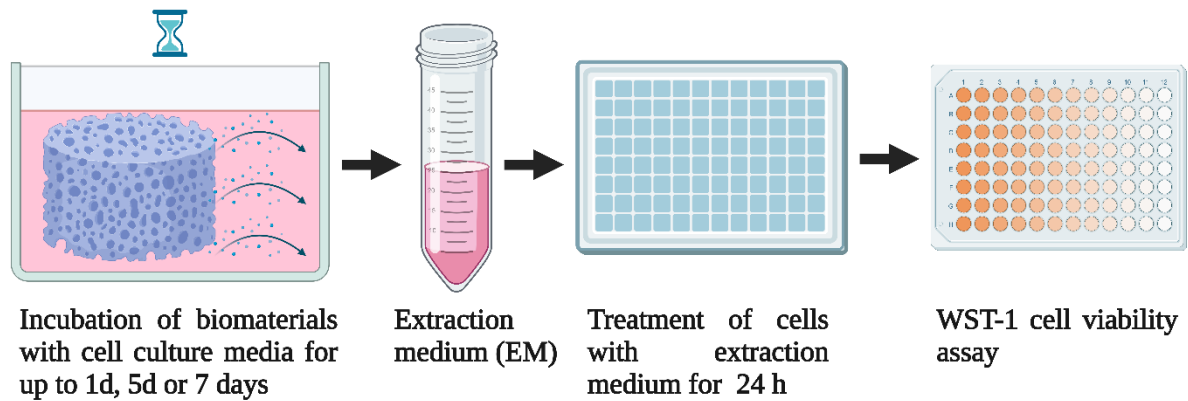


Figure S1. Indirect cell viability assay, created with BioRender.com.

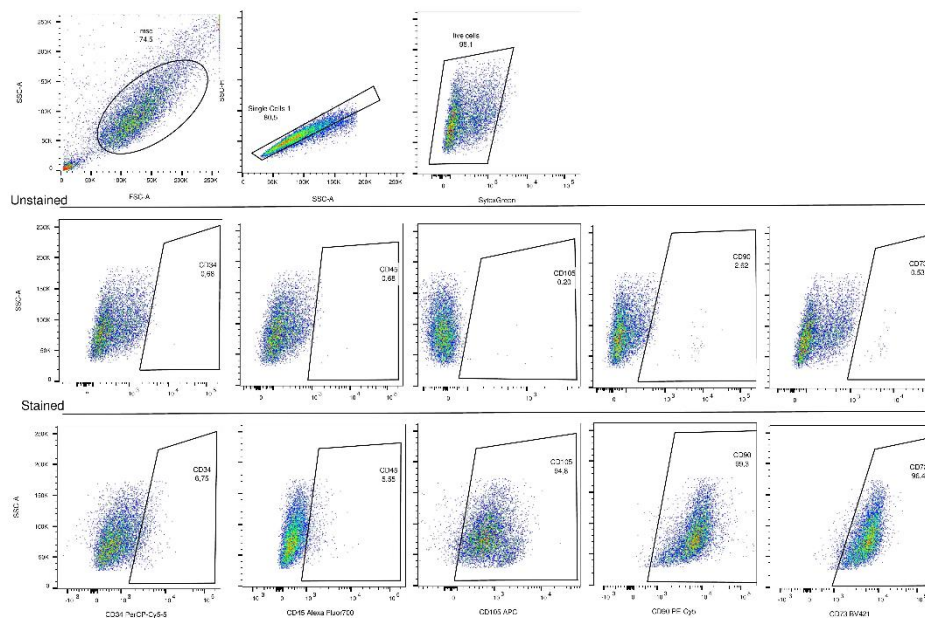


Figure S2. Flow cytometric analysis of stem cell marker expression – Donor C.

Antigen	Fluophore	Company	Cat. number
CD34	PerCP/Cy5	BioLegend, San Diego, USA	343521
CD45	Alexa Fluor700	BioLegend, San Diego, USA	368513
CD73	Brilliant Violet	BioLegend, San Diego, USA	344008
CD90	PE/Cy5	BDPharmingen, San Jose, USA	555597
CD105	APC	BioLegend, San Diego, USA	323208

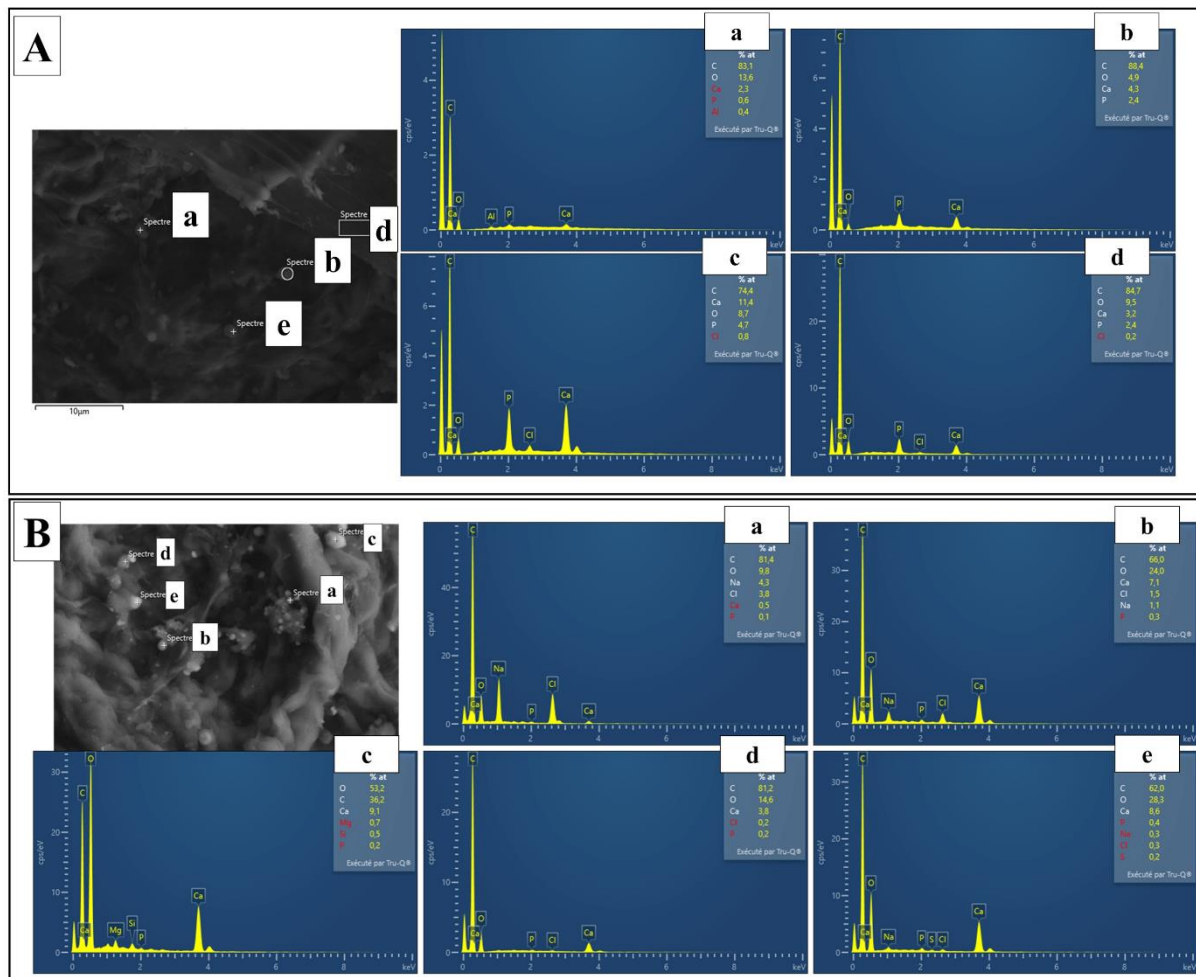
Table S1. Staining reagents – antibody list.

Biological donor	% viable cells	%CD34 +cells	%CD45 +cells	%CD73 +cells	%CD90 +cells	%CD105 +cells
A	98,9	20	6,9	99,9	98,5	97,6
B	96,9	32,1	4,8	99,9	99,4	97,7

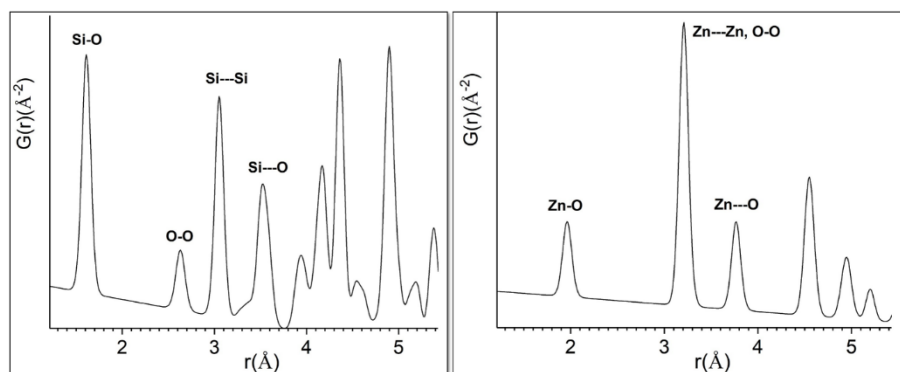
C	98,1	6,8	5,6	97,0	99,3	94,8
D	97,2	26,8	5,1	99,2	99,4	62,1

\* For visualization, dot plots of donor C are included below

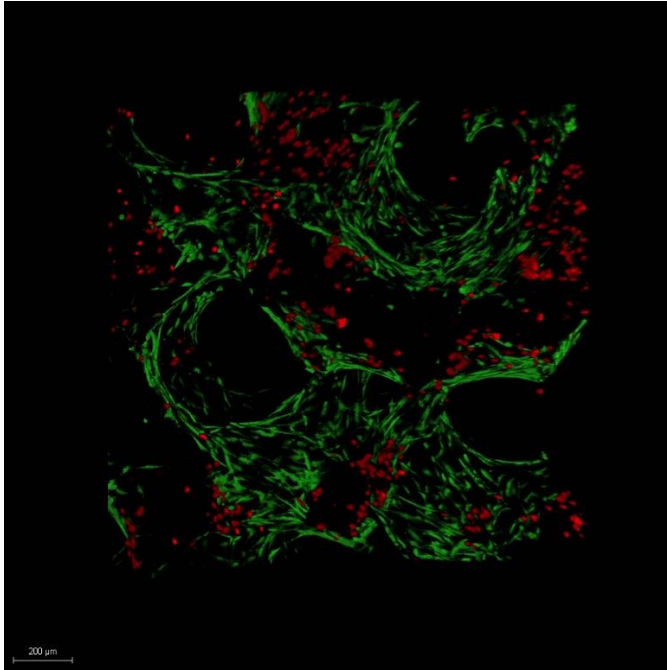
**Table S2.** Flow cytometry analysis of bone marrow primary cells.



**Figure S3.** SEM images and EDS spectra of i) Hyb80 and ii) Zn-Hyb80 scaffolds after 7 days of incubation in SBF (As the scaffolds material is P-free, less P element index in Zn-Hyb80 is a sign of less CaP formation and inferior bioactivity).



**Figure S4.** PDF simulations of Quartz (left: COD 1526860) and Zincite (right: COD 1011258).



**Multimedia file M1.** LIVE/DEAD Staining of Hyb scaffold at 3 weeks, Scale bar is 200  $\mu\text{m}$ , a link to the video should be provided in the image, the video was uploaded separately