## **Supporting Information**

## Mechanical Properties of Porous $\beta$ -Tricalcium Phosphate Composites Prepared by Ice-templating and Poly( $\epsilon$ -caprolactone) Impregnation

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**sm1.** Failure of a ceramic  $\beta$ -TCP scaffold (left) and a composite  $\beta$ -TCP/PCL scaffold (right) with approximately 4 vol% PCL under compression load. The ceramic scaffold falls into pieces and forms a huge amount of debris. The impregnated scaffold shows a high degree of plastic deformation. The ceramic  $\beta$ -TCP lamellae debris is glued by the PCL. The aligned lamellar pores are oriented parallel to the applied load (parallel to the cylinder axis).

**sm2.** 3-point flexural test of a  $\beta$ -TCP/PCL composite scaffold with 7.6 vol% PCL content. The bending beam undergoes large deformation with the formation of macroscopically visible fibrils bridging the crack. Elastic recovery is observable after load retraction. The aligned lamellar pores are oriented perpendicular to the applied load direction.