

# The Effect of PCL Addition on 3D-Printable PLA/HA Composite Filaments for the Treatment of Bone Defects

Elin Åkerlund <sup>1</sup>, Anna Diez-Escudero <sup>2,\*</sup>, Ana Grzeszczak <sup>1</sup> and Cecilia Persson <sup>1,\*</sup>

<sup>1</sup> Division of Biomedical Engineering, Department of Materials Science and Engineering, The Ångström Laboratory, Uppsala University, Uppsala, Sweden;

<sup>2</sup> Ortholab, Department of Surgical Sciences, Rudbeck laboratory, Uppsala University, Uppsala, Sweden;

\* Correspondence: cecilia.persson@angstrom.uu.se; anna.diez@surgsci.uu.se

## Supplementary Materials

**Table S1.** Extrusion settings for each material.

Sample	Temperatures (°C)				Speed (rpm)	Fan speed (%)
	Heater 4	Heater 3	Heater 2	Heater 1		
90PLA10PCL	170	185	190	180	5	70
80PLA20PCL	170	185	190	180	5	60
70PLA30PCL	140	155	160	160	6	60
90PLA10PCL-15HA	170	185	180	175	5	70
80PLA20PCL-15HA	170	185	190	180	5	70
70PLA30PCL-15HA	140	155	160	160	6	60

**Table S2.** Thermal characteristics of all pristine samples investigated (before degradation) illustrating the glass transition temperature ( $T_g$ ), the cold crystallization temperature ( $T_{cc}$ ), the melting temperature ( $T_m$ ).

Sample	Temperature (°C)		
	$T_g$	$T_{cc}$	$T_m$
PLA	59.9	133.7	152.6
PCL	-	-	55.4
90PLA10PCL	52.5	121.2	147.6
80PLA20PCL	52.7	115.0	146.0
70PLA30PCL	53.3	116.4	145.7
90PLA10PCL-15HA	52.9	114.9	146.4
80PLA20PCL-15HA	53.5	111.7	144.8
70PLA30PCL-15HA	54.5	122.6	146.3