Does diamond improve the SLM titanium implant interface?

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As additive manufacturing rapidly increases the opportunities in medical implants, researchers are striving to improve the materials and the interface they provide with underlying bone. Here we discuss recent progress in making diamond based implants. These implants show biocompatibility and antimicrobial effects. We have recently reported that diamond implants can be fabricated using additively manufactured SLM titanium¹. The diamond implants are shown to have better cellular activity than the as received scaffolds (both titanium and polycaprolactone) whilst reducing bacterial adhesion. We will also discuss recent finding on the biointerface of as printed SLM titanium implants².

References
