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| Author | Martin Larsson | |
| Title (English) | Antibacterial mucin and BMP-2 coatings for titanium implant surfaces | |
| Title (Swedish) | | |
| Abstract | <p>Bacterial infections are always a threat to hip or knee implant procedures. One way of reducing this risk is to make the titanium implant surface less hydrophobic. This project intended to combine the antibacterial properties of mucin with the osteoinductive properties of rhBMP-2. The surfaces were rigorously analyzed and the amount of adhered <i>Staphylococcus aureus</i> was detected with a confocal scanner. Physisorption of mucin to the surfaces seems to be more efficient than covalent attachment. rhBMP-2 was found to be bioactive in cooperation with mucin, and the latter was shown to keep its ability to deter proteins and bacteria when combined with other surface functionalizing agents.</p> | |
| Keywords | Titanium, implant, mucin, biomaterial, coating, BMP-2, jacalin, <i>Staphylococcus aureus</i> , ESCA, surface chemistry, bacterial adherence | |
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