

Supplementary information for the article:

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Supplementary material for

Anodizing/anaphoretic electrodeposition of nano calcium phosphate/chitosan lactate multifunctional coatings on titanium with advanced corrosion resistance, bioactivity and antibacterial properties

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Total of 4 pages. Total of 2 Tables.

The ANOVA results of antimicrobial activity on *S. aureus* are shown in Table S1 and the ANOVA results of antimicrobial activity on *P. aeruginosa* are shown in Table S2. The analysis showed significant difference at the 5% level of confidence.

Table S1. Summary of statistical analysis for the comparison of data for control group, Ti, ACP/TiO₂ and ACP+ChOL/TiO₂ coatings of antimicrobial activity on *S. aureus*.

| Sample | Source of variation | Sum of Squares | df | Mean Square | F | Sig. |
|---------|---------------------|----------------|----|-------------|-------|-------|
| 0 min | Between Groups | 0.000 | 3 | 0.000 | 0.986 | 0.447 |
| | Within Groups | 0.000 | 8 | 0.000 | | |
| | Total | 0.000 | 11 | | | |
| 60 min | Between Groups | 0.000 | 3 | 0.000 | 1.903 | 0.208 |
| | Within Groups | 0.000 | 8 | 0.000 | | |
| | Total | 0.000 | 11 | | | |
| 120 min | Between Groups | 0.001 | 3 | 0.000 | 4.155 | 0.048 |
| | Within Groups | 0.000 | 8 | 0.000 | | |
| | Total | 0.001 | 11 | | | |
| 180 min | Between Groups | 0.009 | 3 | 0.003 | 7.480 | 0.010 |
| | Within Groups | 0.003 | 8 | 0.000 | | |
| | Total | 0.012 | 11 | | | |
| 240 min | Between Groups | 0.018 | 3 | 0.006 | 2.901 | 0.101 |
| | Within Groups | 0.017 | 8 | 0.002 | | |
| | Total | 0.035 | 11 | | | |
| 300 min | Between Groups | 0.052 | 3 | 0.017 | 3.870 | 0.056 |
| | Within Groups | 0.036 | 8 | 0.004 | | |
| | Total | 0.088 | 11 | | | |

| | | | | | | |
|---------|----------------|-------|----|-------|-------|-------|
| 360 min | Between Groups | 0.025 | 3 | 0.008 | 5.839 | 0.021 |
| | Within Groups | 0.011 | 8 | 0.001 | | S |
| | Total | 0.036 | 11 | | | |
| 420 min | Between Groups | 0.017 | 3 | 0.006 | 7.464 | 0.010 |
| | Within Groups | 0.006 | 8 | 0.001 | | S |
| | Total | 0.023 | 11 | | | |

F^{V1}V2 (0.05), S = significant, NS = Not Significant

Table S2. Summary of statistical analysis for the comparison of data for control group, Ti, ACP/TiO₂ and ACP+ChOL/TiO₂ coatings of antimicrobial activity on *P. aeruginosa*.

| Sample | Source of variation | Sum of Squares | df | Mean Square | F | Sig. |
|---------|---------------------|----------------|----|-------------|--------|-------|
| 0 min | Between Groups | 0.000 | 3 | 0.000 | 0.444 | 0.734 |
| | Within Groups | 0.000 | 4 | 0.000 | | NS |
| | Total | 0.000 | 7 | | | |
| 60 min | Between Groups | 0.000 | 3 | 0.000 | 1.481 | 0.347 |
| | Within Groups | 0.000 | 4 | 0.000 | | NS |
| | Total | 0.000 | 7 | | | |
| 120 min | Between Groups | 0.002 | 3 | 0.001 | 17.843 | 0.009 |
| | Within Groups | 0.000 | 4 | 0.000 | | S |
| | Total | 0.002 | 7 | | | |
| 180 min | Between Groups | 0.035 | 3 | 0.012 | 17.434 | 0.009 |
| | Within Groups | 0.003 | 4 | 0.001 | | S |
| | Total | 0.038 | 7 | | | |
| 240 min | Between Groups | 0.184 | 3 | 0.061 | 18.200 | 0.009 |
| | Within Groups | 0.013 | 4 | 0.003 | | S |
| | Total | 0.198 | 7 | | | |

| | | | | | | |
|---------|----------------|-------|---|-------|---------|-------|
| 300 min | Between Groups | 0.148 | 3 | 0.049 | 138.448 | 0.000 |
| | Within Groups | 0.001 | 4 | 0.000 | | S |
| | Total | 0.149 | 7 | | | |
| 360 min | Between Groups | 0.069 | 3 | 0.023 | 26.047 | 0.004 |
| | Within Groups | 0.004 | 4 | 0.001 | | S |
| | Total | 0.073 | 7 | | | |
| 420 min | Between Groups | 0.077 | 3 | 0.026 | 16.633 | 0.010 |
| | Within Groups | 0.006 | 4 | 0.002 | | S |
| | Total | 0.083 | 7 | | | |

F^{V1}V2 (0.05), S = significant, NS = Not Significant

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