# 3D-Printed Biomaterials Testing in Response to Cryoablation

## SUPPLEMENTARY MATERIALS

**Supplementary Table S1.** Statistical analysis of temperatures means between control and PMS under the biomaterial samples in $D_1$

| Distance | Time | Biomaterial | Control mean (SD) | Biomaterial mean (SD) | pvalue |
|---|---|---|---|---|---|
| **$D_1$** | **0 s** | **Med_2.5 mm** | 8.3 (5.6) | 0.6 (15.3) | 0.382 |
| | **10 s** | **Med_2.5 mm** | 8.2 (5.5) | 4.9 (9.4) | 0.568 |
| | **15 s** | **Med_2.5 mm** | 7.9 (5.0) | 5.2 (8.3) | 0.590 |
| | **30 s** | **Med_2.5 mm** | 8.0 (4.2) | 7.0 (8.9) | 0.834 |
| | **0 s** | **Med_1.0 mm** | 8.3 (5.6) | -0.8 (15.5) | 0.308 |
| | **10 s** | **Med_1.0 mm** | 8.2 (5.5) | 3.9 (8.5) | 0.437 |
| | **15 s** | **Med_1.0 mm** | 7.9 (5.0) | 4.4 (8.1) | 0.491 |
| | **30 s** | **Med_1.0 mm** | 8.0 (4.2) | 5.0 (7.9) | 0.526 |

| | | | | | |
|---|---|---|---|---|---|
| | **0 s** | **Tpu_2.5 mm** | 8.3 (5.6) | 1.3 (10.5) | 0.285 |
| | **10 s** | **Tpu_2.5 mm** | 8.2 (5.5) | 3.5 (7.5) | 0.352 |
| | **15 s** | **Tpu_2.5 mm** | 7.9 (5.0) | 4.2 (6.8) | 0.415 |
| | **30 s** | **Tpu_2.5 mm** | 8.0 (4.2) | 5.1 (6.8) | 0.488 |
| | **0 s** | **Tpu_1.0 mm** | 8.3 (5.6) | 6.1 (10.7) | 0.735 |
| | **10 s** | **Tpu_1.0 mm** | 8.2 (5.5) | 6.7 (9.5) | 0.800 |
| | **15 s** | **Tpu_1.0 mm** | 7.9 (5.0) | 7.1 (8.7) | 0.878 |
| | **30 s** | **Tpu_1.0 mm** | 8.0 (4.2) | 7.3 (8.1) | 0.883 |

For the p-value computation different thicknesses of biomaterials have been considered. The SD is the standard deviation of temperature measurements.

**Supplementary Table S2.** Statistical analysis of temperatures means between control and PMS under the biomaterial samples in $D_2$

| Distance | Time | Biomaterial | Control mean (SD) | Biomaterial mean (SD) | pvalue |
|---|---|---|---|---|---|
| **$D_2$** | **0 s** | **Med_2.5 mm** | 21.9 (3.8) | 23.7 (5.1) | 0.594 |
| | **10 s** | **Med_2.5 mm** | 21.6 (3.4) | 23.4 (5.1) | 0.580 |
| | **15 s** | **Med_2.5 mm** | 21.6 (3.3) | 23.1 (5.2) | 0.628 |
| | **30 s** | **Med_2.5 mm** | 21.2 (3.2) | 22.8 (5.3) | 0.629 |
| | **0 s** | **Med_1.0 mm** | 21.9 (3.8) | 23.1 (5.9) | 0.743 |
| | **10 s** | **Med_1.0 mm** | 21.6 (3.4) | 22.7 (6.0) | 0.755 |
| | **15 s** | **Med_1.0 mm** | 21.6 (3.3) | 22.6 (6.0) | 0.780 |
| | **30 s** | **Med_1.0 mm** | 21.2 (3.2) | 21.9 (5.9) | 0.843 |
| | **0 s** | **Tpu_2.5 mm** | 21.9 (3.8) | 23.8 (3.5) | 0.495 |
| | **10 s** | **Tpu_2.5 mm** | 21.6 (3.4) | 23.6 (3.5) | 0.451 |

| | | | | | |
|---|---|---|---|---|---|
| | **15 s** | **Tpu_2.5 mm** | 21.6 (3.3) | 23.4 (3.5) | 0.477 |
| | **30 s** | **Tpu_2.5 mm** | 21.2 (3.2) | 22.8 (3.5) | 0.529 |
| | **0 s** | **Tpu_1.0 mm** | 21.9 (3.8) | 26.0 (2.9) | 0.137 |
| | **10 s** | **Tpu_1.0 mm** | 21.6 (3.4) | 25.5 (3.2) | 0.145 |
| | **15_s** | **Tpu_1.0 mm** | 21.6 (3.3) | 25.4 (3.1) | 0.142 |
| | **30 s** | **Tpu_1.0 mm** | 21.2 (3.2) | 25.2 (2.9) | 0.117 |

For the p-value computation different thicknesses of biomaterials have been considered. The SD is the standard deviation of temperature measurements.