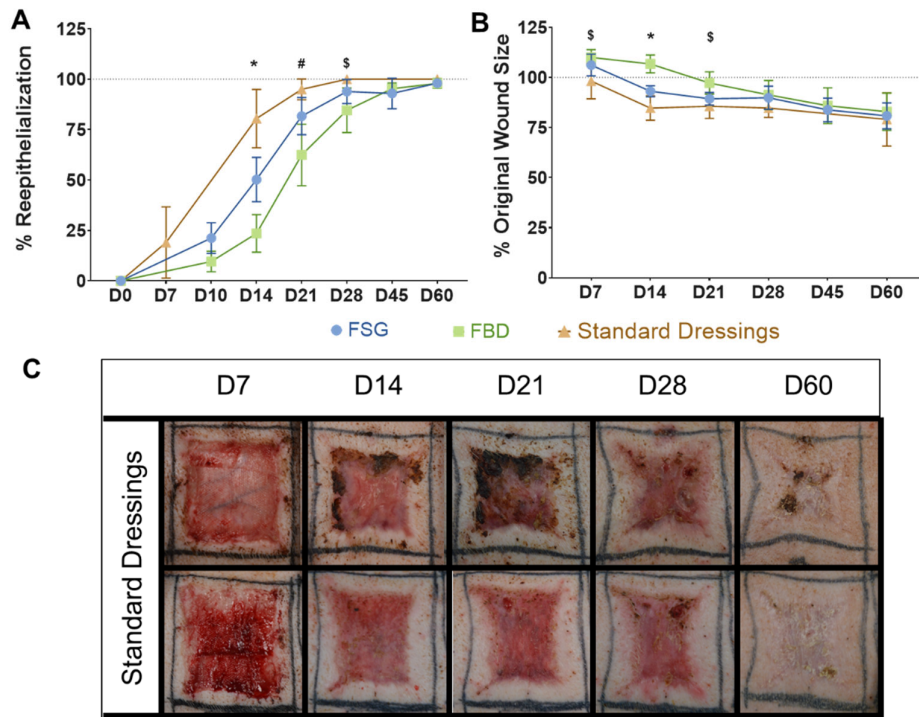


Supplemental Figure S1: Complete Blood Count Results. Average values for all 6 animals are shown throughout the experiment for A) white blood cells (WBC), B) red blood cells (RBC), C) platelets (PLT), and D) hematocrit (HCT). The mean with confidence intervals are illustrated here. The dotted lines represent the upper and lower normal values for porcine.



Supplemental Figure S2: Comparison to Historical Controls. A) Re-epithelialization was calculated by tracing the leading edge of the epidermis and comparing to total wound size (* = $p < 0.002$ comparing all groups; # = $p < 0.05$ CTPs vs. SD; \$ = $p < 0.05$ for FBD vs. SD). Direct comparisons could not be made at Day 7, 10, or 45 because data collection did not coincide. Those time points were included on the graph above to illustrate the delay in the CTPs re-ep rate. B) Wound contraction was calculated by tracing the tattoos, comparing to the initial wound size, and normalizing to the growth of each animal (* = $p < 0.05$ comparing all groups; \$ = $p < 0.05$ for FBD vs. SD). Direct comparisons could not be made at Day 45 because data collection did not coincide. Significance for both A and B were determined by 2 way repeated measures ANOVA with Tukey post-hoc test. ($n = 12$ for FSG and FBD and $n = 5$ for SD). C) Representative digital images were captured throughout the study of wounds treated with standard dressings (antimicrobial Telfa) and were utilized to calculate the re-epithelialization and contraction rates. Biopsy punches are visible as small scabs in some wounds.

| Epidermal Status | | | | | | | | | | | |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Path Score | FSG | | | | | | FBD | | | | |
| | D14 | D21 | D28 | D45 | D60 | D14 | D21 | D28 | D45 | D60 | |
| 0 | 7 | 4 | 1 | 1 | 0 | 10 | 6 | 3 | 0 | 0 | |
| 1 | 4 | 4 | 0 | 2 | 1 | 1 | 4 | 1 | 1 | 0 | |
| 2 | 1 | 4 | 10 | 8 | 8 | 1 | 2 | 8 | 9 | 10 | |
| 3 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 1 | 2 | |

| Granulation Tissue/Fibroplasia | | | | | | | | | | | | |
|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Path Score | FSG | | | | | | FBD | | | | | |
| | D7 | D14 | D21 | D28 | D45 | D60 | D7 | D14 | D21 | D28 | D45 | D60 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 0 |
| 2 | 3 | 2 | 0 | 0 | 4 | 0 | 4 | 5 | 1 | 0 | 5 | 1 |
| 3 | 7 | 3 | 2 | 5 | 6 | 3 | 0 | 6 | 4 | 5 | 3 | 3 |
| 4 | 2 | 7 | 5 | 7 | 2 | 8 | 0 | 0 | 5 | 6 | 3 | 8 |
| 5 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 |

| Foreign Material | | | | | | | | | | | | |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Path Score | FSG | | | | | | FBD | | | | | |
| | D7 | D14 | D21 | D28 | D45 | D60 | D7 | D14 | D21 | D28 | D45 | D60 |
| 0 | 3 | 7 | 12 | 12 | 12 | 12 | 4 | 2 | 7 | 10 | 12 | 12 |
| 1 | 9 | 5 | 0 | 0 | 0 | 0 | 8 | 10 | 5 | 2 | 0 | 0 |

| Angiogenesis | | | | | | | | | | | | |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Path Score | FSG | | | | | | FBD | | | | | |
| | D7 | D14 | D21 | D28 | D45 | D60 | D7 | D14 | D21 | D28 | D45 | D60 |
| 0 | 2 | 0 | 3 | 7 | 9 | 9 | 4 | 1 | 2 | 6 | 9 | 11 |
| 1 | 2 | 4 | 5 | 4 | 3 | 3 | 8 | 8 | 7 | 3 | 3 | 1 |
| 2 | 7 | 6 | 3 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 0 | 0 |
| 3 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Hemorrhage Severity | | | | | | | | | | | | |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Path Score | FSG | | | | | | FBD | | | | | |
| | D7 | D14 | D21 | D28 | D45 | D60 | D7 | D14 | D21 | D28 | D45 | D60 |
| 0 | 1 | 4 | 3 | 5 | 8 | 7 | 7 | 7 | 6 | 6 | 6 | 5 |
| 1 | 8 | 6 | 7 | 7 | 4 | 5 | 5 | 4 | 6 | 6 | 6 | 7 |
| 2 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Neutrophils | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Path Score | FSG | | | | | | FBD | | | | | |
| | D7 | D14 | D21 | D28 | D45 | D60 | D7 | D14 | D21 | D28 | D45 | D60 |
| 0 | 0 | 2 | 5 | 10 | 10 | 7 | 2 | 1 | 4 | 4 | 9 | 10 |
| 1 | 1 | 1 | 2 | 1 | 2 | 2 | 7 | 2 | 3 | 4 | 1 | 0 |
| 2 | 7 | 9 | 5 | 1 | 0 | 1 | 1 | 6 | 5 | 3 | 2 | 1 |
| 3 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 1 | 0 | 1 |
| 4 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 |
| 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Eosinophils | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Path Score | FSG | | | | | | FBD | | | | | |
| | D7 | D14 | D21 | D28 | D45 | D60 | D7 | D14 | D21 | D28 | D45 | D60 |
| 0 | 0 | 2 | 5 | 10 | 11 | 10 | 2 | 2 | 4 | 4 | 9 | 10 |
| 1 | 3 | 6 | 7 | 2 | 1 | 2 | 5 | 6 | 4 | 4 | 2 | 0 |
| 2 | 4 | 4 | 0 | 0 | 0 | 0 | 5 | 3 | 4 | 4 | 1 | 2 |
| 3 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Lymphocytes | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Path Score | FSG | | | | | | FBD | | | | | |
| | D7 | D14 | D21 | D28 | D45 | D60 | D7 | D14 | D21 | D28 | D45 | D60 |
| 0 | 0 | 1 | 2 | 8 | 9 | 5 | 1 | 0 | 1 | 1 | 4 | 1 |
| 1 | 0 | 2 | 4 | 2 | 3 | 2 | 5 | 2 | 2 | 1 | 2 | 2 |
| 2 | 9 | 8 | 6 | 2 | 0 | 3 | 6 | 8 | 3 | 5 | 4 | 5 |
| 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 4 | 2 | 3 |
| 4 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

| Macrophages | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Path Score | FSG | | | | | | FBD | | | | | |
| | D7 | D14 | D21 | D28 | D45 | D60 | D7 | D14 | D21 | D28 | D45 | D60 |
| 0 | 0 | 2 | 6 | 10 | 11 | 7 | 2 | 1 | 3 | 3 | 4 | 4 |
| 1 | 11 | 10 | 6 | 2 | 1 | 3 | 9 | 6 | 4 | 4 | 5 | 5 |
| 2 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 5 | 5 | 5 | 2 | 2 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Supplemental Table S1. Pathology Scoring Results.