

Supplemental

Supplemental Table 1 – Mortality in pre-liminary experiments in db/db mice utilizing the Dhall et al. protocol¹

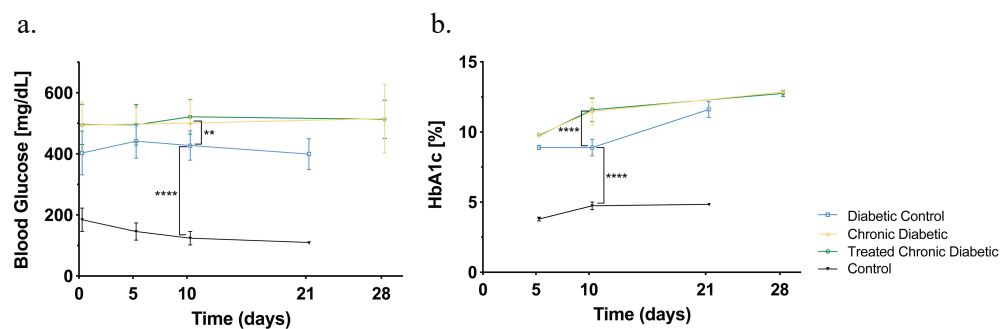
	Surgery	Day 1	Day 2	Day 3	Day 4	Day 5
Number of animals that survived						
11-week-old female	8	4	1			
11-week-old male	8	5	3			
8-month-old female	8	3				
8-month-old male	8	4	3	2		2

Supplemental Table 2 - Post-surgical timeline follow up numbers

	Surgery	Day 5	Day 10	Day 14	Day 21	Day 28
Number of animals photographed						
Control	15	15	13	3	1	
Diabetic control	15	15	13	3	1	
Chronic diabetic	16	16	14	4		2
Treated chronic diabetic	16	16	14	4		2
Number of animals sacrificed						
Control		2	10	2	1	
Diabetic control		2	10	2	1	
Chronic diabetic		2	10	2		2
Treated chronic diabetic		2	10	2		2



Supplemental Figure 1. Integra Dermal Regeneration Template. The scaffold comprises of two layers, an outer layer made of a thin silicone film that acts as an epidermis and an inner layer constructed of a complex matrix of cross-linked fibers that enables re-growth of the dermis.



Supplemental Figure 2. a. Blood Glucose. The diabetic mice showed higher plasma glucose levels than the non-diabetic Control mice across all days. On day 10 the Diabetic control ($427 \pm 49\%$) had significantly lower glucose levels than both the Chronic Diabetic ($501 \pm 76\%$; $p=0.007$) and Treated Chronic Diabetic ($521 \pm 57\%$; $p=0.007$) mice. No difference in blood glucose was observed between the Chronic Diabetic and the Treated Chronic Diabetic groups. **b. HbA1c.** On Day 10 post-surgery a significant increase in HbA1c was observed in the Diabetic Control ($8.9 \pm 0.6\%$), Chronic Diabetic ($11.5 \pm 1.0\%$), and Treated Chronic Diabetic ($11.6 \pm 0.8\%$), versus the non-diabetic Controls ($4.7 \pm 0.3\%$, $p<0.0001$ in all cases). A significant difference was also noted between the Chronic Diabetic groups versus the Diabetic Control ($p<0.0001$). No difference in HbA1c was observed between the Chronic Diabetic and the Treated Chronic Diabetic groups.