

Supplementary Materials: Preclinical Evaluation of the Safety and Immunological Action of Allogeneic ADSC-Collagen Scaffolds in the Treatment of Chronic Ischemic Cardiomyopathy

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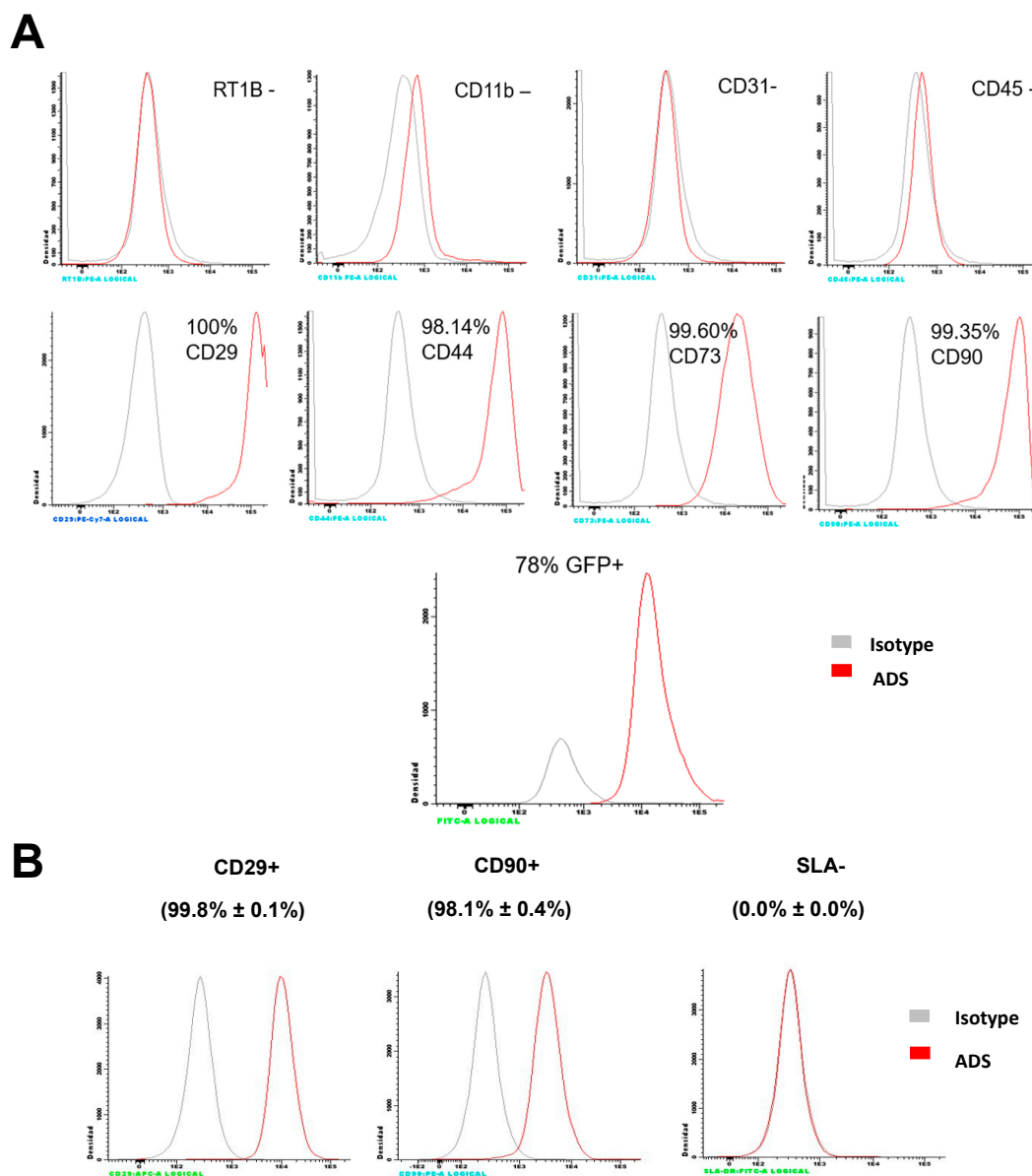


Figure S1. Phenotypic characterization of the rat and pig ADSCs.

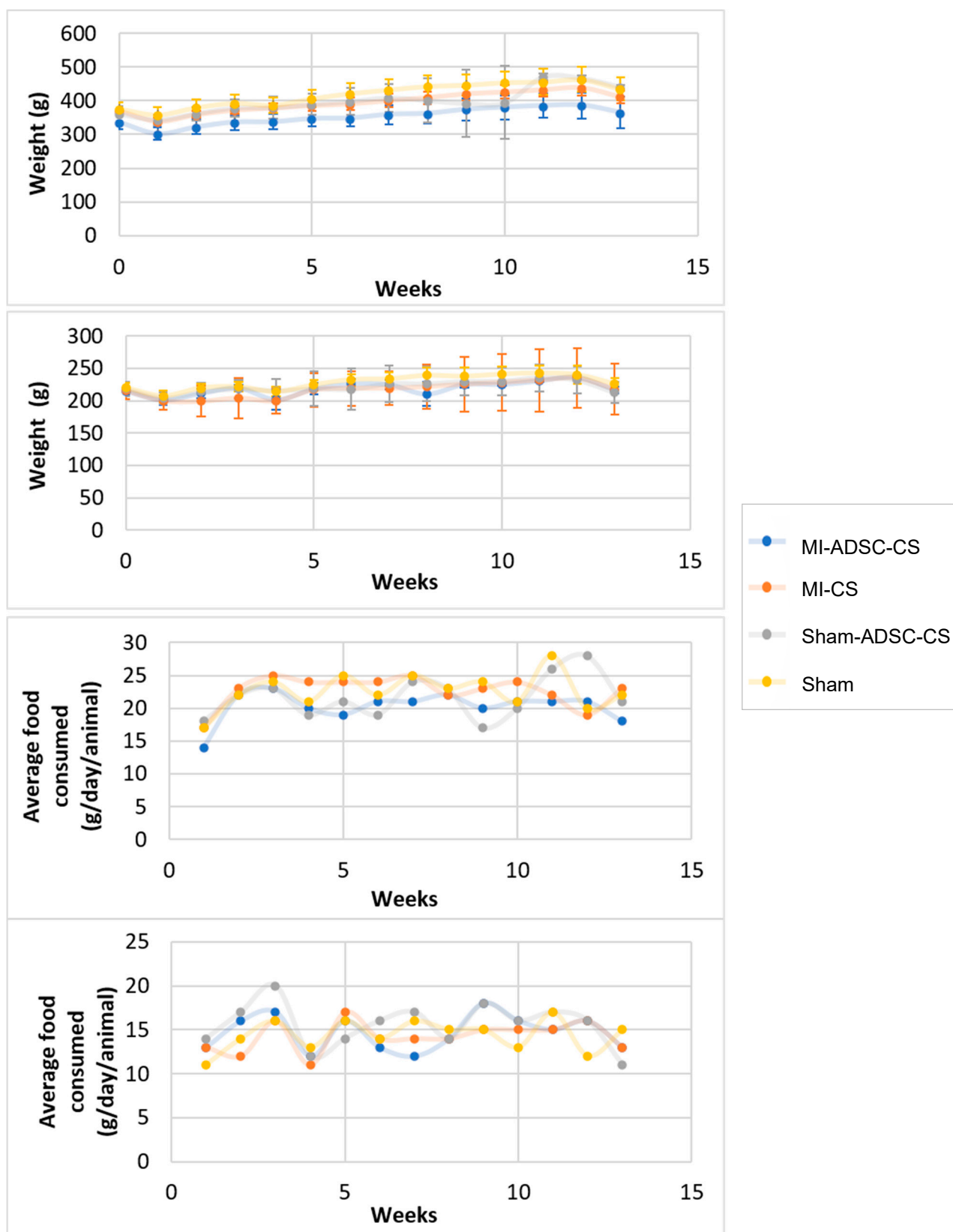


Figure S2. Animal weight and food intake during the toxicity study.

Table S1. Irwin's test for analysing general symptomatology in the MI-ADSC-CS group. The table shows, for each week, the number of animals in the MI-ADSC-CS group ($n = 10$; 5 males and 5 females) that present the assigned evaluation. This evaluation corresponds to a normal symptomatology for RH-Foxn1^{mu} rats.

Studied parameters / Assigned Evaluation	Observation period (weeks)						Observations
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Visual location	10/10	10/10	10/10	9/10	9/9	9/9	Week 4: Dead Female 10
Spontaneous activity	10/10	10/10	10/10	10/10	9/9	9/9	
Reactivity	10/10	10/10	10/10	10/10	9/9	9/9	
Contact response	10/10	10/10	10/10	10/10	9/9	9/9	
Pain response	10/10	10/10	10/10	10/10	9/9	9/9	
Fright response	10/10	10/10	10/10	10/10	9/9	9/9	
Stereotypies	10/10	10/10	10/10	10/10	9/9	9/9	
Vocalization	10/10	10/10	10/10	10/10	9/9	9/9	
Passivity	10/10	10/10	10/10	10/10	9/9	9/9	
Irritability	10/10	10/10	10/10	10/10	9/9	9/9	
Fear	10/10	10/10	10/10	10/10	9/9	9/9	
Aisle	10/10	10/10	10/10	10/10	9/9	9/9	
Corporal position	10/10	10/10	10/10	10/10	9/9	9/9	
Press strength	10/10	10/10	10/10	10/10	9/9	9/9	
Corporal tone	10/10	10/10	10/10	10/10	9/9	9/9	
Members tone	10/10	10/10	10/10	10/10	9/9	9/9	
Atrium reflection	10/10	10/10	10/10	10/10	9/9	9/9	
Corneal reflex	10/10	10/10	10/10	10/10	9/9	9/9	
Ipsilateral reflex	10/10	10/10	10/10	10/10	9/9	9/9	
Balance	10/10	10/10	10/10	9/10	9/9	9/9	Not evaluated in female 10
Straightening reflex	10/10	10/10	10/10	9/10	9/9	9/9	Not evaluated in female 10
Temblors	10/10	10/10	10/10	10/10	9/9	9/9	
Contractions	10/10	10/10	10/10	10/10	9/9	9/9	
Ataxic march	10/10	10/10	10/10	10/10	9/9	9/9	
Hypotonic march	10/10	10/10	10/10	10/10	9/9	9/9	
Pelvic elevation	10/10	10/10	10/10	10/10	9/9	9/9	
Straub tail	10/10	10/10	10/10	10/10	9/9	9/9	
Contortions	10/10	10/10	10/10	10/10	9/9	9/9	
Pupillary size	10/10	10/10	10/10	10/10	9/9	9/9	
Palpebral opening	10/10	10/10	9/10	10/10	9/9	9/9	Week 3: Male 4 - eyes semi-closed
Skin colour	10/10	10/10	9/10	9/10	8/9	8/9	Week 3-4: Male 2 - mild skin paleness
Cardiac frequency	10/10	10/10	10/10	10/10	9/9	9/9	
Respiratory frequency	10/10	10/10	10/10	10/10	9/9	9/9	
Exophthalmos	10/10	10/10	10/10	10/10	9/9	9/9	
Urination	10/10	10/10	10/10	10/10	9/9	9/9	
Salivation	10/10	10/10	10/10	10/10	9/9	9/9	
Piloerection	10/10	10/10	10/10	10/10	9/9	9/9	
Diarrheal	10/10	10/10	10/10	10/10	9/9	9/9	
Hypothermia	10/10	10/10	10/10	9/10	9/9	9/9	Week 4: Female 10 - hypothermic

Mortality: Female 10 (Day 29-week 5)								
(MI-ADSC-CS group continuation, weeks 7-13)								
Studied parameters / Assigned Evaluation	Observation period (weeks)							Observations
	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	
Visual location	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Spontaneous activity	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Reactivity	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Contact response	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Pain response	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Fright response	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Stereotypies	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Vocalization	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Passivity	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Irritability	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Fear	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Aisle	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Corporal position	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Press strength	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Corporal tone	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Members tone	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Atrium reflection	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Corneal reflex	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Ipsilateral reflex	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Balance	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Straightening reflex	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Temblors	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Contractions	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Ataxic march	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Hypotonic march	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Pelvic elevation	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Straub tail	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Contortions	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Pupillary size	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Palpebral opening	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Skin colour	8/9	8/9	7/8	7/8	8/8	8/8	8/8	Weeks 7-10: Male 2 - mild skin paleness
Cardiac frequency	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Respiratory frequency	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Exophthalmos	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Urination	8/9	9/9	8/8	8/8	8/8	8/8	8/8	Week 7: Female 6 - bloody urination
Salivation	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Piloerection	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Diarrheal	9/9	9/9	8/8	8/8	8/8	8/8	8/8	
Hypothermia	9/9	8/9	8/8	8/8	8/8	8/8	8/8	Week 8: Female 8 - hypothermic
Mortality: Female 10 (Day 29-week 5) and female 8 (Day 57-week 9)								

Table S2. Irwin`s test for analysing general symptomatology in the MI-CS group. The table shows, for each week, the number of animals in the MI-CS group ($n = 10$; 5 males and 5 females) that present the assigned evaluation. This evaluation corresponds to a normal symptomatology for RH-Foxn1^{rnu} rats.

Studied parameters / Assigned Evaluation	Observation period (weeks)						Observations
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Visual location	10/10	10/10	10/10	9/9	8/8	8/8	
Spontaneous activity	10/10	10/10	9/10	9/9	8/8	8/8	Week 3: Female 7 - sporadic and slow movements
Reactivity	10/10	10/10	10/10	9/9	8/8	8/8	
Contact response	10/10	10/10	10/10	9/9	8/8	8/8	
Pain response	10/10	10/10	10/10	9/9	8/8	8/8	
Fright response	10/10	10/10	10/10	9/9	8/8	8/8	
Stereotypies	10/10	10/10	10/10	9/9	8/8	8/8	
Vocalization	10/10	10/10	10/10	9/9	8/8	8/8	
Passivity	10/10	10/10	10/10	9/9	8/8	8/8	
Irritability	10/10	10/10	10/10	9/9	8/8	8/8	
Fear	10/10	10/10	10/10	9/9	8/8	8/8	
Aisle	10/10	10/10	10/10	9/9	8/8	8/8	
Corporal position	10/10	10/10	10/10	9/9	8/8	8/8	
Press strength	10/10	10/10	10/10	9/9	8/8	8/8	
Corporal tone	10/10	10/10	10/10	9/9	8/8	8/8	
Members tone	10/10	10/10	10/10	9/9	8/8	8/8	
Atrium reflection	10/10	10/10	10/10	9/9	8/8	8/8	
Corneal reflex	10/10	10/10	10/10	9/9	8/8	8/8	
Ipsilateral reflex	10/10	10/10	10/10	9/9	8/8	8/8	
Balance	10/10	10/10	9/10	9/9	8/8	8/8	No carried out in the Female 7 to avoid excessive effort
Straightening reflex	10/10	10/10	9/10	9/9	8/8	8/8	No carried out in the Female 7 to avoid excessive effort
Temblors	10/10	10/10	10/10	9/9	8/8	8/8	
Contractions	10/10	10/10	10/10	9/9	8/8	8/8	
Ataxic march	10/10	10/10	10/10	9/9	8/8	8/8	
Hypotonic march	10/10	10/10	10/10	9/9	8/8	8/8	
Pelvic elevation	10/10	10/10	10/10	9/9	8/8	8/8	
Straub tail	10/10	10/10	10/10	9/9	8/8	8/8	
Contortions	10/10	10/10	10/10	9/9	8/8	8/8	
Pupillary size	10/10	10/10	10/10	9/9	8/8	8/8	
Palpebral opening	10/10	10/10	9/10	9/9	8/8	8/8	Week 3: Female 7 - eyes semi-closed
Skin colour	10/10	10/10	10/10	9/9	8/8	8/8	
Cardiac frequency	10/10	10/10	9/10	9/9	8/8	8/8	Week 3: Female 7 - tachycardia
Respiratory frequency	10/10	10/10	9/10	8/9	7/8	7/8	Week 3: Female 7 - respiratory distress Week 3-6: Female 8 - respiratory distress

Exophthalmos	10/10	10/10	10/10	9/9	8/8	8/8
Urination	10/10	10/10	10/10	9/9	8/8	8/8
Salivation	10/10	10/10	10/10	9/9	8/8	8/8
Piloerection	10/10	10/10	10/10	9/9	8/8	8/8
Diarrheal	10/10	10/10	10/10	9/9	8/8	8/8
Hypothermia	10/10	10/10	10/10	9/9	8/8	8/8
<i>Mortality: Female 7 (Day 24-week 4) and Female 9 (Day 35-week 5)</i>						

(MI-CS group continuation, weeks 7-13)

Studied parameters / Assigned Evaluation	Observation period (weeks)							Observations
	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	
Visual location	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Spontaneous activity	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Reactivity	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Contact response	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Pain response	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Fright response	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Stereotypies	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Vocalization	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Passivity	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Irritability	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Fear	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Aisle	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Corporal position	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Press strength	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Corporal tone	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Members tone	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Atrium reflection	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Corneal reflex	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Ipsilateral reflex	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Balance	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Straightening reflex	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Temblors	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Contractions	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Ataxic march	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Hypotonic march	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Pelvic elevation	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Straub tail	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Contortions	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Pupillary size	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Palpebral opening	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Skin colour	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Cardiac frequency	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Respiratory frequency	7/8	7/8	7/8	7/8	7/8	7/8	8/8	Week 7-12: Female 8 - respiratory distress
Exophthalmos	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Urination	8/8	8/8	8/8	8/8	8/8	8/8	8/8	
Salivation	8/8	8/8	8/8	8/8	8/8	8/8	8/8	

Piloerection	8/8	8/8	8/8	8/8	8/8	8/8	8/8
Diarrheal	8/8	8/8	8/8	8/8	8/8	8/8	8/8
Hypothermia	8/8	8/8	8/8	8/8	8/8	8/8	8/8
<i>Mortality: Female 7 (Day 24-week 4) and Female 9 (Day 35-week 5)</i>							

Table S3. Irwin`s test for analysing general symptomatology in the Sham-ADSC-CS group. The table shows, for each week, the number of animals in the Sham-ADSC-CS group ($n = 10$; 5 males and 5 females) that present the assigned evaluation. This evaluation corresponds to a normal symptomatology for RH-Foxn1^{rnu} rats.

Studied parameters / Assigned Evaluation	Observation period (weeks)						Observations
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Visual location	10/10	10/10	10/10	10/10	9/9	8/8	
Spontaneous activity	10/10	10/10	10/10	10/10	9/9	8/8	
Reactivity	10/10	10/10	10/10	10/10	9/9	8/8	
Contact response	10/10	10/10	10/10	10/10	9/9	8/8	
Pain response	10/10	10/10	10/10	10/10	9/9	8/8	
Fright response	10/10	10/10	10/10	10/10	9/9	8/8	
Stereotypies	10/10	10/10	10/10	10/10	9/9	8/8	
Vocalization	10/10	10/10	10/10	10/10	9/9	8/8	
Passivity	10/10	10/10	10/10	10/10	9/9	8/8	
Irritability	10/10	10/10	10/10	10/10	9/9	8/8	
Fear	10/10	10/10	10/10	10/10	9/9	8/8	
Aisle	10/10	10/10	10/10	10/10	9/9	8/8	
Corporal position	10/10	10/10	10/10	10/10	9/9	8/8	
Press strength	10/10	10/10	10/10	10/10	9/9	8/8	
Corporal tone	10/10	10/10	10/10	10/10	9/9	8/8	
Members tone	10/10	10/10	10/10	10/10	9/9	8/8	
Atrium reflection	10/10	10/10	10/10	10/10	9/9	8/8	
Corneal reflex	10/10	10/10	10/10	10/10	9/9	8/8	
Ipsilateral reflex	10/10	10/10	10/10	10/10	9/9	8/8	
Balance	10/10	10/10	10/10	10/10	9/9	8/8	
Straightening reflex	10/10	10/10	10/10	10/10	9/9	8/8	
Temblors	10/10	10/10	10/10	10/10	9/9	8/8	
Contractions	10/10	10/10	10/10	10/10	9/9	8/8	
Ataxic march	10/10	10/10	10/10	10/10	9/9	8/8	
Hypotonic march	10/10	10/10	10/10	10/10	9/9	8/8	
Pelvic elevation	10/10	10/10	10/10	10/10	9/9	8/8	
Straub tail	10/10	10/10	10/10	10/10	9/9	8/8	
Contortions	10/10	10/10	10/10	10/10	9/9	8/8	
Pupillary size	10/10	10/10	10/10	10/10	9/9	8/8	
Palpebral opening	10/10	10/10	10/10	10/10	9/9	8/8	
Skin colour	10/10	10/10	10/10	10/10	9/9	8/8	
Cardiac frequency	10/10	10/10	10/10	10/10	9/9	8/8	
Respiratory frequency	10/10	10/10	10/10	10/10	9/9	8/8	
Exophthalmos	10/10	10/10	10/10	10/10	9/9	8/8	
Urination	10/10	10/10	10/10	10/10	9/9	8/8	
Salivation	10/10	10/10	10/10	10/10	9/9	8/8	

Piloerection	10/10	10/10	10/10	10/10	9/9	8/8	
Diarrheal	10/10	10/10	10/10	10/10	8/9	8/8	Week 4: Male 4 - diarrhea
Hypothermia	10/10	10/10	10/10	10/10	8/9	7/8	Week 5: Male 4 - hypothermia Week 6: Female 8 - hypothermia
<i>Mortality: Male 5 (Day 28-week 5) and Male 4 (Day 41-week 6)</i>							

(Sham-ADSC-CS group continuation, weeks 7-13)

Studied parameters / Assigned Evaluation	Observation period (weeks)							Observations
	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	
Visual location	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Spontaneous activity	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Reactivity	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Contact response	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Pain response	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Fright response	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Stereotypies	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Vocalization	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Passivity	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Irritability	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Fear	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Aisle	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Corporal position	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Press strength	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Corporal tone	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Members tone	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Atrium reflection	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Corneal reflex	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Ipsilateral reflex	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Balance	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Straightening reflex	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Temblors	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Contractions	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Ataxic march	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Hypotonic march	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Pelvic elevation	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Straub tail	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Contortions	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Pupillary size	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Palpebral opening	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Skin colour	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Cardiac frequency	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Respiratory frequency	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Exophthalmos	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Urination	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Salivation	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Piloerection	8/8	8/8	8/8	7/7	7/7	7/7	7/7	
Diarrheal	8/8	8/8	8/8	7/7	7/7	7/7	7/7	

Hypothermia	8/8	8/8	8/8	7/7	7/7	7/7	7/7
Mortality: Male 5 (Day 28-week 5); Male 4 (Day 41-week 6) and Male Reserve 1 (Day 65-week 10)							

Table S4. Irwin`s test for analysing general symptomatology in the Sham Group. The table shows, for each week, the number of animals in the Sham group ($n = 10$; 5 males and 5 females) that present the assigned evaluation. This evaluation corresponds to a normal symptomatology for RH-Foxn1^{rnu} rats.

Studied parameters / Assigned Evaluation	Observation period (weeks)						Observations
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Visual location	10/10	10/10	10/10	10/10	10/10	10/10	
Spontaneous activity	10/10	10/10	10/10	10/10	10/10	10/10	
Reactivity	10/10	10/10	10/10	10/10	10/10	10/10	
Contact response	10/10	10/10	10/10	10/10	10/10	10/10	
Pain response	10/10	10/10	10/10	10/10	10/10	10/10	
Fright response	10/10	10/10	10/10	10/10	10/10	10/10	
Stereotypies	10/10	10/10	10/10	10/10	10/10	10/10	
Vocalization	10/10	10/10	10/10	10/10	10/10	10/10	
Passivity	10/10	10/10	10/10	10/10	10/10	10/10	
Irritability	10/10	10/10	10/10	10/10	10/10	10/10	
Fear	10/10	10/10	10/10	10/10	10/10	10/10	
Aisle	10/10	10/10	10/10	10/10	10/10	10/10	
Corporal position	10/10	10/10	10/10	10/10	10/10	10/10	
Press strength	10/10	10/10	10/10	10/10	10/10	10/10	
Corporal tone	10/10	10/10	10/10	10/10	10/10	10/10	
Members tone	10/10	10/10	10/10	10/10	10/10	10/10	
Atrium reflection	10/10	10/10	10/10	10/10	10/10	10/10	
Corneal reflex	10/10	10/10	10/10	10/10	10/10	10/10	
Ipsilateral reflex	10/10	10/10	10/10	10/10	10/10	10/10	
Balance	10/10	10/10	10/10	10/10	10/10	10/10	
Straightening reflex	10/10	10/10	10/10	10/10	10/10	10/10	
Temblors	10/10	10/10	10/10	10/10	10/10	10/10	
Contractions	10/10	10/10	10/10	10/10	10/10	10/10	
Ataxic march	10/10	10/10	10/10	10/10	10/10	10/10	
Hypotonic march	10/10	10/10	10/10	10/10	10/10	10/10	
Pelvic elevation	10/10	10/10	10/10	10/10	10/10	10/10	
Straub tail	10/10	10/10	10/10	10/10	10/10	10/10	
Contortions	10/10	10/10	10/10	10/10	10/10	10/10	
Pupillary size	10/10	10/10	10/10	10/10	10/10	10/10	
Palpebral opening	10/10	10/10	10/10	10/10	10/10	10/10	
Skin colour	10/10	10/10	10/10	10/10	10/10	10/10	
Cardiac frequency	10/10	10/10	10/10	10/10	10/10	10/10	
Respiratory frequency	10/10	10/10	10/10	10/10	10/10	10/10	
Exophthalmos	10/10	10/10	10/10	10/10	10/10	10/10	
Urination	10/10	10/10	10/10	10/10	10/10	10/10	
Salivation	10/10	10/10	10/10	10/10	10/10	10/10	
Piloerection	10/10	10/10	10/10	10/10	10/10	10/10	

Table S5. Serum biochemistry in male rats. Ordered by experimental group, the descriptive statistics of centralization and dispersion (mean and standard deviation) and the statistical significance obtained by the one-way non-parametric ANOVA (Kruskal-Wallis test, according to the levels of significance: (*) $p < 0.05$ and (**) $p < 0.01$ are included). MI-ADSC-CS, MI-CS and Sham-ADSC-CS vs. Sham control group. Analysis was performed in 3 animals per each experimental group and sex for day 2 and 10 post-implant, and in 5 animals for day 28 and 90 post-implant.

MALE	Time of analysis	Albumin (g/dl)	Urea (mg/dl)	AST (U/l)	ALT (U/l)	ALP (U/l)	T. Bilirubin (mg/dl)	Cholesterol (mg/dl)	Glucose (mg/ml)	Creatinine (mg/dl)	T. Proteins (g/dl)	CPK (U/l)	GGT (U/l)	Chloro (mmol/l)	Potassium (mmol/l)	Sodium (mmol/l)	Globuline (g/dl)
MI-ADSC-CS	Day 2	3.1 ± 0.1	36 ± 5	195 ± 8	35 ± 2	81 ± 12	0.09 ± 0.01	74 ± 4	97 ± 9	0.30 ± 0.02	5.2 ± 0.2	1058 ± 474	0 ± 0	96.4 ± 0.9	4.33 ± .05	132 ± 5	2.1 ± 0.2
	Day 10	3.2 ± 0.2	34 ± 6	101 ± 17	16 ± 2	58 ± 4	0.09 ± 0.01	69 ± 5	66 ± 13	0.34 ± 0.06	4.9 ± 0.4	604 ± 155	0 ± 0	98.6 ± 5.8	4.44 ± 0.23	140 ± 11	1.7 ± 0.2
	Day 28	3.7 ± 0.1	31 ± 5	72 ± 2	31 ± 5	78 ± 2	0.10 ± 0.02	92 ± 1	189 ± 9	0.35 ± 0.04	5.7 ± 0.1	345 ± 95	0 ± 0	92.9 ± 1.3	4.75 ± 0.21	142 ± 1(*)	2.0 ± 0.1
	Day 90	3.6 ± 0.2	37 ± 5	96 ± 8	21 ± 3	51 ± 11	0.08 ± 0.01	89 ± 8	107 ± 13	0.39 ± 0.02	5.3 ± 0.4	529 ± 201	0 ± 0	90.9 ± 1.2	4.32 ± 0.27	126 ± 2	1.7 ± 0.3
MI-CS	Day 2	3.3 ± 0.1	37 ± 2	108 ± 13	19 ± 3	78 ± 10	0.09 ± 0.01	78 ± 6	107 ± 13	0.36 ± 0.03	5.6 ± 0.1	537 ± 128	0 ± 0	93.3 ± 1.1	4.19 ± 0.12	115 ± 11(*)	2.2 ± 0.1
	Day 10	3.6 ± 0.2	37 ± 3	82 ± 8	17 ± 3	66 ± 4	0.10 ± 0.01	78 ± 10	113 ± 14	0.35 ± 0.03	5.2 ± 0.1	412 ± 102	0 ± 0	98.8 ± 5.8	4.28 ± 0.18	136 ± 9	1.6 ± 0.1
	Day 28	3.5 ± 0.1	25 ± 2	70 ± 9	32 ± 7	70 ± 12	0.08 ± 0.01	87 ± 9	223 ± 29	0.34 ± 0.03	5.4 ± 0.1	309 ± 53	0 ± 0	94.7 ± 0.2(**)	4.45 ± 0.39	146 ± 6(*)	1.9 ± 0
	Day 90	3.8 ± 0.1	36 ± 2	82 ± 23	21 ± 2	51 ± 9	0.10 ± 0.02(**)	92 ± 8	120 ± 11	0.40 ± 0.03	5.6 ± 0.2	541 ± 454	0 ± 0	89.2 ± 4.9	3.93 ± 0.40	120 ± 9	1.8 ± 0
Sham-ADSC-CS	Day 2	3.1 ± 0.2	44 ± 6	183 ± 36	33 ± 7	85 ± 41	0.12 ± 0.04	92 ± 16	127 ± 12	0.37 ± 0.03	5.4 ± 0.2	1291 ± 685	1 ± 1	89.0 ± 0.6(*)	3.99 ± 0.22	128 ± 4	2.3 ± 0.1
	Day 10	3.6 ± 0.4	32 ± 4	107 ± 8	21 ± 2	59 ± 5	0.10 ± 0.03	82 ± 4	101 ± 26	0.35 ± 0.04	5.3 ± 0.3	830 ± 462	0 ± 0	99.8 ± 0.8	4.48 ± 0.42	139 ± 1	1.7 ± 0.2
	Day 28	3.5 ± 0.2	30 ± 6	81 ± 27	39 ± 21	65 ± 13	0.11 ± 0.02	93 ± 7	208 ± 28	0.30 ± 0.04	5.2 ± 0.2	337 ± 184	0 ± 0	91.0 ± 0.8	4.45 ± 0.25	131 ± 2	1.7 ± 0(*)
	Day 90	3.7 ± 0.1	35 ± 6	80 ± 29	17 ± 4	41 ± 3	0.04 ± 0.01	83 ± 0	132 ± 16	0.37 ± 0.04	5.5 ± 0.1	757 ± 710	0 ± 0	92.1 ± 2.6	4.04 ± 0.11	135 ± 4	1.8 ± 0
Sham	Day 2	3.1 ± 0.3	38 ± 3	129 ± 40	38 ± 21	59 ± 5	0.12 ± 0.02	85 ± 19	116 ± 5	0.30 ± 0.02	5.1 ± 0.5	916 ± 885	0 ± 0	100.0 ± 0.5	4.56 ± 0.44	139 ± 1	2.1 ± 0.2
	Day 10	3.7 ± 0.1	34 ± 6	107 ± 12	22 ± 2	56 ± 6	0.11 ± 0.01	77 ± 7	106 ± 3	0.38 ± 0.02	5.3 ± 0.2	379 ± 127	0 ± 0	98.2 ± 0.3	4.72 ± 0.21	124 ± 26	1.6 ± 0.2
	Day 28	3.6 ± 0.1	32 ± 3	122 ± 20	48 ± 13	64 ± 13	0.07 ± 0.01	78 ± 5	194 ± 32	0.29 ± 0.02	5.5 ± 0.1	520 ± 375	0 ± 0	87.3 ± 0.8	4.64 ± 0.21	127 ± 2	1.9 ± 0
	Day 90	3.9 ± 0.4	37 ± 9	96 ± 17	20 ± 7	43 ± 6	0.03 ± 0.02	90 ± 8	127 ± 34	0.41 ± 0.06	5.9 ± 0.7	694 ± 675	1 ± 2	93.0 ± 6.6	4.39 ± 0.38	143 ± 18	2.1 ± 0.5

Table S6. Serum biochemistry in female rats. Ordered by experimental group, the descriptive statistics of centralization and dispersion (mean and standard deviation) and the statistical significance obtained by the one-way non-parametric ANOVA (Kruskal-Wallis test, according to the levels of significance: (*) $p < 0.05$ and (**) $p < 0.01$ are included). MI-ADSC-CS, MI-CS and Sham-ADSC-CS vs. Sham control group. Analysis was performed in 3 animals per each experimental group and sex for day 2 and 10 post-implant and in 5 animals for day 28 and 90 post-implant.

FEMALE	Time of analysis	Albumin (g/dl)	Urea (mg/dl)	AST (U/l)	ALT (U/l)	ALP (U/l)	T. Bilirubin (mg/dl)	Cholesterol (mg/dl)	Glucose (mg/ml)	Creatinine (mg/dl)	T. Proteins (g/dl)	CPK (U/l)	GGT (U/l)	Chloro (mmol/l)	Potassium (mmol/l)	Sodium (mmol/l)	Globulin (g/dl)
MI-ADSC-CS	Day 2	2.7 ± 0.2	37 ± 2	180 ± 22	33 ± 7	54 ± 3	0.11 ± 0.03	65 ± 7	75 ± 5(*)	0.30 ± 0.05	4.5 ± 0.4	690 ± 179	0 ± 0	98.5 ± 1.0	4.39 ± 0.16	136 ± 10	1.8 ± 0.2
	Day 10	3.3 ± 0.3	48 ± 12	118 ± 9	16 ± 3	37 ± 6	0.09 ± 0	74 ± 13	70 ± 7	0.35 ± 0.03	4.6 ± 0.3	670 ± 156	0 ± 0	98.0 ± 4.0	4.71 ± 0.42	134 ± 4	1.8 ± 0.2
	Day 28	4.1 ± 0.1	47 ± 4	79 ± 7	20 ± 5	46 ± 1	0.06 ± 0	93 ± 4	102 ± 26	0.41 ± 0.04	5.6 ± 0.1	433 ± 37	0 ± 0	100.4 ± 0.4(*)	4.09 ± 0.41	147 ± 2	1.5 ± 0.0
	Day 90	3.9 ± 0.3	46 ± 4	97 ± 16	17 ± 3(*)	37 ± 8(*)	0.12 ± 0.03	92 ± 19	92 ± 4	0.41 ± 0.06	5 ± 0.3	522 ± 144	0 ± 0	99.3 ± 2.2	4.80 ± 0.17	133 ± 1	1.6 ± 0.4
MI-CS	Day 2	3.2 ± 0.5	43 ± 8	117 ± 20	18 ± 1(*)	45 ± 4	0.08 ± 0.01	87 ± 20	88 ± 2	0.33 ± 0.06	5.1 ± 0.6	406 ± 157	0 ± 0	93.9 ± 0.2	4.26 ± 0.27	130 ± 11	1.9 ± 0.2
	Day 10	3.7 ± 0.3	47 ± 9	65 ± 6	12 ± 1	39 ± 1	0.06 ± 0.01	98 ± 15	95 ± 6	0.41 ± 0.05	5.2 ± 0.4	216 ± 87	0 ± 0	96.3 ± 1.4	4.01 ± 0.07	132 ± 3(*)	1.4 ± 0.1
	Day 28	3.9 ± 0.4	46 ± 10	131 ± 102	46 ± 56	77 ± 36	0.11 ± 0.06	107 ± 21	166 ± 164	0.43 ± 0.04(*)	6 ± 0.3	268 ± 37	3 ± 6(*)	97 ± 4.7(*)	4.34 ± 0.06	150 ± 6(*)	1.8 ± 0.1(*)
	Day 90	3.9 ± 0.3	38 ± 3	90 ± 20	21 ± 6(*)	33 ± 15(*)	0.15 ± 0.04(*)	98 ± 14	119 ± 33	0.43 ± 0.01	5.4 ± 0.5	391 ± 37	1 ± 2	100 ± 0.8	3.62 ± 0.55	134 ± 1	1.5 ± 0.2
Sham-ADSC-CS	Day 2	3.2 ± 0.5	43 ± 6	166 ± 9	27 ± 2	53 ± 14	0.10 ± 0.03	83 ± 6	104 ± 20	0.26 ± 0.03	4.9 ± 0.6	718 ± 231	1 ± 2	92.1 ± 0.4(*)	3.68 ± 0.13	130 ± 2	1.7 ± 0.2
	Day 10	3.5 ± 0.2	49 ± 2	95 ± 10	14 ± 2	38 ± 3	0.09 ± 0.01	78 ± 3	84 ± 16	0.39 ± 0.06	5.0 ± 0.2	525 ± 180	0 ± 0	101.9 ± 0.7	4.38 ± 0.20	137 ± 3	1.5 ± 0.0
	Day 28	3.8 ± 0.2	32 ± 5	92 ± 14	29 ± 3	42 ± 3	0.08 ± 0.03	88 ± 10	197 ± 10	0.37 ± 0.01	5.3 ± 0.3	546 ± 115	0 ± 0	90 ± 0.7(*)	3.85 ± 0.30	129 ± 3	1.5 ± 0.1
	Day 90	3.9 ± 0.4	44 ± 12	384 ± 642(*)	199 ± 404	27 ± 12	0.08 ± 0.04	65 ± 12	68 ± 20	0.41 ± 0.06	5 ± 0.5	523 ± 136	1 ± 1	94.1 ± 7.9	3.76 ± 0.27	138 ± 11	1.3 ± 0.2
Sham	Day 2	2.9 ± 0.3	44 ± 7	111 ± 17	25 ± 3	29 ± 2	0.09 ± 0.03	90 ± 13	112 ± 11	0.29 ± 0.01	4.6 ± 0.3	363 ± 182	0 ± 0	102.4 ± 1.3	4.38 ± 0.42	137 ± 2	1.7 ± 0.1
	Day 10	3.6 ± 0.2	46 ± 2	100 ± 17	14 ± 4	34 ± 2	0.10 ± 0.03	87 ± 8	95 ± 8	0.40 ± 0.02	5.2 ± 0.2	689 ± 247	0 ± 0	99.1 ± 0.6	4.26 ± 0.46	146 ± 3	1.6 ± 0.2
	Day 28	3.9 ± 0.4	29 ± 2	85 ± 22	37 ± 6	46 ± 6	0.07 ± 0.02	83 ± 8	160 ± 9	0.32 ± 0.05	5.4 ± 0.4	372 ± 343	0 ± 0	88.1 ± 0.9	3.98 ± 0.25	126 ± 2	1.4 ± 0.2
	Day 90	4.5 ± 0.4	43 ± 6	67 ± 10	13 ± 1	19 ± 2	0.05 ± 0.03	98 ± 6	111 ± 11	0.43 ± 0.02	6.0 ± 0.4	337 ± 163	1 ± 0	96.2 ± 1.7	3.87 ± 0.18	142 ± 11	1.5 ± 0.1

Table S7. Haematological parameters in male rats. Ordered by experimental group, the descriptive statistics of centralization and dispersion (mean and standard deviation) and the statistical significance obtained by one-way non-parametric ANOVA (Kruskal-Wallis test, according to the levels of significance: (*) $p < 0.05$ and (**) $p < 0.01$ are included). MI-ADSC-CS, MI-CS and Sham-ADSC-CS vs. Sham control group. Analysis was performed in 3 animals per each experimental group and sex for day 2 and 10 post-implant and in 5 animals for day 28 and 90 post-implant. Reticulocytes were not determined (n.d.) on Day 28.

MALE	Time of analysis	RBC ($\times 10^6$ cell/ml)	WBC ($\times 10^3$ cell/ml)	Haemoglobin (g/dl)	Hematocrit (%)	MCV (fL)	MCH (pg)	MCHC (g/dl)	Platelet ($\times 10^3$ cell/ml)	Reticulocytes (%)
MI-ADSC-CS	Day 2	7.59 \pm 0.21	7.42 \pm 1.40	13.4 \pm 0.2	39.9 \pm 0.3	52.6 \pm 1.1	17.6 \pm 0.2	33.5 \pm 0.3	879 \pm 86	3 \pm 1
	Day 10	8.39 \pm 0.27	8.90 \pm 2.13	14.6 \pm 0.5	42.6 \pm 0.8	50.8 \pm 0.8	17.4 \pm 0.3	34.3 \pm 0.6	1034 \pm 40	2 \pm 0
	Day 28	9.13 \pm 0.27	7.08 \pm 0.41	16.0 \pm 0.3(*)	45.9 \pm 1.1	50.2 \pm 0.5(*)	17.6 \pm 0.2	34.9 \pm 0.4	1160 \pm 96	n.d.
	Day 90	8.00 \pm 1.55	6.23 \pm 1.26	12.8 \pm 4.1	36.9 \pm 10.6	45.3 \pm 5.6	15.5 \pm 2.6	34.2 \pm 1.7	1129 \pm 28	6 \pm 8
MI-CS	Day 2	7.45 \pm 1.50	6.50 \pm 1.4	14.4 \pm 0	38.9 \pm 6.3	52.5 \pm 2.3	19.8 \pm 3.5	37.5 \pm 4.7	922 \pm 209	2 \pm 1
	Day 10	8.14 \pm 0.02(*)	9.06 \pm 2.20	14.5 \pm 0.1	41.3 \pm 0.9	50.8 \pm 1.2	17.9 \pm 0.1	35.2 \pm 0.7	942 \pm 116	2 \pm 0
	Day 28	8.87 \pm 0.16	7.12 \pm 0.27	15.2 \pm 0.2	43.9 \pm 0.7	49.5 \pm 0.1(**)	17.2 \pm 0.1	34.7 \pm 0.2	1071 \pm 68	n.d.
	Day 90	8.81 \pm 0.24	6.31 \pm 0.70	14.7 \pm 0.6	42.8 \pm 0.7	48.6 \pm 0.5	16.7 \pm 0.5	34.4 \pm 0.9	1112 \pm 51	1 \pm 1
Sham-ADSC-CS	Day 2	8.21 \pm 0.19	9.79 \pm 2.86	14.4 \pm 0.4	42.1 \pm 0.7	51.2 \pm 0.4	17.5 \pm 0.1	34.3 \pm 0.4	786 \pm 367	1 \pm 0
	Day 10	8.28 \pm 0.02	12.22 \pm 3.37	14.4 \pm 0.2	41.5 \pm 0.7	50.1 \pm 1	17.3 \pm 0.3	34.6 \pm 0.4	1016 \pm 76	3 \pm 0
	Day 28	8.95 \pm 0.5	5.79 \pm 1.93	15.5 \pm 0.8	44.9 \pm 3.1	50.2 \pm 1.1	17.3 \pm 0.3	34.5 \pm 0.7	999 \pm 242	n.d.
	Day 90	8.50 \pm 0.08	6.53 \pm 2.43	14.5 \pm 0.7	42.1 \pm 1.5	49.5 \pm 1.3	17.1 \pm 0.6	34.5 \pm 0.5	955 \pm 71	1 \pm 1
Sham	Day 2	8.35 \pm 0.10	12.23 \pm 1.99	14.8 \pm 0.3	42.8 \pm 0.5	51.3 \pm 0.2	17.7 \pm 0.2	34.6 \pm 0.4	917 \pm 187	2 \pm 0
	Day 10	8.30 \pm 0.10	9.23 \pm 1.40	14.5 \pm 0.7	42.5 \pm 1.7	51.2 \pm 1.5	17.4 \pm 0.7	34.0 \pm 0.5	724 \pm 197	3 \pm 2
	Day 28	8.42 \pm 0.43	5.96 \pm 0.55	14.9 \pm 0.6	44.1 \pm 1.9	52.4 \pm 0.9	17.7 \pm 0.3	33.8 \pm 0.4	997 \pm 31	n.d.
	Day 90	8.47 \pm 1.18	7.61 \pm 3.79	13.9 \pm 3.4	39.9 \pm 9.5	46.5 \pm 6.1	16.2 \pm 2.3	34.8 \pm 0.6	1128 \pm 69	4 \pm 2

Table S8. Haematological parameters in female rats. Ordered by experimental group, the descriptive statistics of centralization and dispersion (mean and standard deviation) and the statistical significance obtained by the one-way non-parametric ANOVA (Kruskal-Wallis test, according to the levels of significance: (*) $p < 0.05$ and (**) $p < 0.01$ are included). MI-ADSC-CS, MI-CS and Sham-ADSC-CS vs. Sham control group. Analysis was performed in 3 animals per each experimental group and sex for day 2 and 10 post-implant and in 5 animals for day 28 and 90 post-implant. Reticulocytes were not determined (n.d.) on Day 28.

FEMALE	Time of analysis	RBC ($\times 10^6$ cell/ml)	WBC ($\times 10^3$ cell/ml)	Haemoglobin (g/dl)	Hematocrit (%)	MCV (fL)	MCH (pg)	MCHC (g/dl)	Platelet ($\times 10^3$ cell/ml)	Reticulocytes (%)
MI-ADSC-CS	Day 2	7.11 \pm 0.32	3.90 \pm 1.18	13.1 \pm 0.7	38.7 \pm 1.4	54.5 \pm 0.4	18.4 \pm 0.3	33.7 \pm 0.7	665 \pm 35	3 \pm 0
	Day 10	7.75 \pm 0.12	3.59 \pm 1.22	14.2 \pm 0.1	41.3 \pm 0.8	53.3 \pm 0.2	18.3 \pm 0.4	34.3 \pm 0.8	936 \pm 15	2 \pm 0
	Day 28	8.60 \pm 0.43	4.01 \pm 2.34	15.7 \pm 0.3	45.6 \pm 0.9	51.6 \pm 0.7	17.8 \pm 0.3	34.5 \pm 0.2	1010 \pm 85	n.d.
	Day 90	8.21 \pm 0.39	3.57 \pm 1.03	14.7 \pm 0.3	43.1 \pm 0.5	52.6 \pm 2.1	17.9 \pm 0.4	34.0 \pm 0.5	921 \pm 77	1 \pm 1
MI-CS	Day 2	8.00 \pm 0.30	3.97 \pm 1.42	14.5 \pm 0.3	42.6 \pm 1.8	53.3 \pm 0.4	18.2 \pm 0.4	34.1 \pm 0.8	864 \pm 135	2 \pm 1
	Day 10	7.84 \pm 0.26	3.39 \pm 0.67	14.3 \pm 0.5	41.7 \pm 1.2	53.2 \pm 0.9	18.2 \pm 0	34.2 \pm 0.7	1255 \pm 89	3 \pm 1
	Day 28	9.34 \pm 1.14	3.68 \pm 2.32	16.8 \pm 1.7	48.0 \pm 3.9	51.6 \pm 2.3	18.0 \pm 0.5	35.0 \pm 0.9	1101 \pm 231	n.d.
	Day 90	8.98 \pm 1.84	4.63 \pm 0.77	16.1 \pm 2.9	46.0 \pm 8.1	51.4 \pm 1.3	18.0 \pm 0.4	35.0 \pm 0.2	751 \pm 105	1 \pm 1
Sham-ADSC-CS	Day 2	7.47 \pm 0.31	4.57 \pm 0.20	13.4 \pm 0.40	38.9 \pm 1.8	52.2 \pm 0.5	18.0 \pm 0.3	34.4 \pm 0.5	821 \pm 61	2 \pm 1
	Day 10	7.50 \pm 0.48	3.87 \pm 0.65	13.9 \pm 0.8	40.0 \pm 1.8	53.4 \pm 1.1	18.5 \pm 0.2	34.7 \pm 0.4	1031 \pm 80	2 \pm 0
	Day 28	8.37 \pm 0.13	4.39 \pm 1.26	15.0 \pm 0.1	43.9 \pm 0.4	52.5 \pm 0.6	18.0 \pm 0.3	34.2 \pm 0.2	835 \pm 100	n.d.
	Day 90	8.86 \pm 0.75	5.63 \pm 1.91	15.6 \pm 1.3	45.8 \pm 3.7	51.7 \pm 0.7	17.6 \pm 0.4	34.1 \pm 0.3	879 \pm 128	2 \pm 1
Sham	Day 2	7.19 \pm 0.39	5.29 \pm 1.37	13.2 \pm 0.9	38.5 \pm 1.8	53.6 \pm 0.6	18.4 \pm 0.3	34.2 \pm 1	747 \pm 62	2 \pm 0
	Day 10	6.80 \pm 0.18	2.80 \pm 0.64	13.1 \pm 0.2	39.2 \pm 1.1	57.7 \pm 3.3	19.2 \pm 0.8	33.3 \pm 0.4	944 \pm 51	3 \pm 1
	Day 28	8.51 \pm 0.39	4.65 \pm 0.68	15.2 \pm 0.8	44.7 \pm 2	52.5 \pm 1.1	17.9 \pm 0.2	34.1 \pm 0.4	822 \pm 90	n.d.
	Day 90	8.37 \pm 0.27	3.69 \pm 1.64	14.4 \pm 0.6	41.6 \pm 1.6	49.6 \pm 0.6	17.2 \pm 0.4	34.6 \pm 0.3	887 \pm 93	3 \pm 1

Table S9. Urine Biochemistry parameters for males. Ordered by experimental group, the descriptive statistics of centralization and dispersion (mean and standard deviation) and the statistical significance obtained in the one-way non-parametric ANOVA (Kruskal-Wallis test, according to the levels of significance: (*) $p < 0.05$ and (**) $p < 0.01$ are included). MI-ADSC-CS, MI-CS and Sham-ADSC-CS vs. Sham control group results are represented. Analysis was performed in 3 animals per each experimental group and sex for day 2 and 10 post-implant and in 5 animals for day 90 post-implant. Nitrites are represented as a positive or negative (in brackets the number of animals positive or negative from the total animals).

MALE		Density (mg/dl)	pH	Leukocytes (cel/ μ l)	Nitrites	Proteins (mg/dl)	Glucose	Ketonic bodies (mg/dl)	Urobilinogen (mg/dl)	Bilirubine (mg/dl)	Erythrocytes (cel/ μ l)
MI-ADSC- CS	Day 2	1018 \pm 3	6.3 \pm 0.2	50 \pm 43	Negative (3/3)	41 \pm 0	Normal (5/5)	8.3 \pm 5.7	Normal (3/3)	0.0 \pm 0.0	20.0 \pm 8.7
	Day 10	1010 \pm 9	6.8 \pm 0.2	0 \pm 0	Negative (2/3)	42 \pm 29	Normal (5/5)	6.6 \pm 7.6	Normal (3/3)	0.3 \pm 0.5	6.6 \pm 5.7
	Day 90	1019 \pm 9	6.4 \pm 0.2	40 \pm 0	Negative (3/5)	45 \pm 29	Normal (5/5)	13.0 \pm 7.6	Normal (5/5)	0.0 \pm 0.0	9.1 \pm 5.7
MI-CS	Day 2	1021 \pm 3	6.3 \pm 0.2	75 \pm 43	Negative (2/3)	75 \pm 0	Normal (5/5)	15.0 \pm 0.0	Normal (3/3)	0.0 \pm 0.0	7.3 \pm 5.7
	Day 10	1007 \pm 3	7.0 \pm 0	13 \pm 18	Negative (2/3)	25 \pm 0	Normal (5/5)	0.0 \pm 0.0	Normal (2/2)	0.0 \pm 0.0	5.0 \pm 7.0
	Day 90	1020 \pm 5	6.2 \pm 0.2	65 \pm 49	Positive (3/5)	35 \pm 22	Normal (5/5)	14.0 \pm 21.0	Normal (5/5)	0.2 \pm 0.4	11.1 \pm 8.4
Sham- ADSC-CS	Day 2	1022 \pm 3	6.0 \pm 0	100 \pm 0	Negative (2/3)	66 \pm 72	Normal (5/5)	15.0 \pm 0.0	Normal (3/3)	0.0 \pm 0.0	100.6 \pm 130.9
	Day 10	1014 \pm 3	7.0 \pm 0	17 \pm 13	Positive (2/3)	25 \pm 0	Normal (5/5)	1.6 \pm 2.8	Normal (3/3)	0.0 \pm 0.0	3.3 \pm 5.7
	Day 90	1010 \pm 8	6.5 \pm 0.7	50 \pm 70	Negative (5/5)	13 \pm 17	Normal (5/5)	2.5 \pm 3.5	Normal (5/5)	0.0 \pm 0.0	5.3 \pm 7.1
Sham	Day 2	1023 \pm 3	6.2 \pm 0.2	25 \pm 0	Negative (2/3)	42 \pm 29	Normal (5/5)	12.0 \pm 5.7	Normal (3/3)	0.7 \pm 0.6	20.0 \pm 8.6
	Day 10	1013 \pm 3	7.3 \pm 0.6	25 \pm 0	Positive (2/3)	25 \pm 0	Normal (5/5)	0.0 \pm 0.0	Normal (3/3)	0.0 \pm 0.0	0.0 \pm 0.0
	Day 90	1018 \pm 6	6.2 \pm 0.0	100 \pm 22	Negative (3/5)	35 \pm 20	Normal (4/5)	15.0 \pm 20.3	Normal (5/5)	0.0 \pm 0.0	19.0 \pm 8.2

Table S10. Urine Biochemistry parameters for males. Ordered by experimental group, the descriptive statistics of centralization and dispersion (mean and standard deviation) and the statistical significance obtained by the one-way non-parametric ANOVA (Kruskal-Wallis test, according to the levels of significance (*) $p < 0.05$ and (**) $p < 0.01$ are included). MI-ADSC-CS, MI-CS and Sham-ADSC-CS vs. Sham control group results are represented. Analysis was performed in 3 animals per each experimental group and sex for day 2 and 10 post-implant and in 5 animals for day 90 post-implant. Nitrites are represented as a positive or negative (in brackets the number of animals positive or negative from the total animals).

FEMALE		Density (mg/dl)	pH	Leukocytes (cel/ μ l)	Nitrites	Proteins (mg/dl)	Glucose	Ketonic bodies (mg/dl)	Urobilinogen (mg/dl)	Bilirubine (mg/dl)	Erythrocytes (cel/ μ l)
MI-ADSC- CS	Day 2	1017 \pm 6	6.5 \pm 0.5	16 \pm 14	Negative (3/3)	16 \pm 13	Normal (3/3)	2.1 \pm 2.9	Normal (3/3)	0.6 \pm 0.6	11.6 \pm 12.5
	Day 10	1016 \pm 10	6.5 \pm 0.5	8 \pm 14	Negative (3/3)	33 \pm 38	Normal (3/3)	5.3 \pm 8.6	Normal (3/3)	0.3 \pm 0.6	0.0 \pm 0.0
	Day 90	1012 \pm 10	8.3 \pm 0.5	183 \pm 274	Positive (2/3)	176 \pm 281	Normal (3/3)	5.3 \pm 8.6	Normal (2/3)	0.0 \pm 0.0	11.6 \pm 12.5
MI-CS	Day 2	1017 \pm 6	6.5 \pm 0.5	16 \pm 14	Negative (2/3)	33 \pm 38	Normal (3/3)	5.3 \pm 8.6	Normal (3/3)	0.6 \pm 0.0	8.3 \pm 4.4
	Day 10	1017 \pm 6	7.0 \pm 1.0	8 \pm 14	Negative (2/3)	25 \pm 0	Normal (3/3)	0.0 \pm 0.0	Normal (3/3)	0.0 \pm 0.0	20.0 \pm 26.4
	Day 90	1012 \pm 8	7.5 \pm 1.0	8 \pm 14	Positive (3/3)	8 \pm 14	Normal (3/3)	0.0 \pm 0.0	Normal (3/3)	0.0 \pm 0.0	0 \pm 0
Sham- ADSC-CS	Day 2	1021 \pm 9	6.3 \pm 0.5	66 \pm 57	Negative (2/3)	33 \pm 38	Normal (3/3)	10.6 \pm 8.6	Normal (2/3)	0.0 \pm 0.0	25 \pm 25.0
	Day 10	1018 \pm 3	6.5 \pm 0.0	16 \pm 14	Negative (2/3)	33 \pm 38	Normal (3/3)	3.3 \pm 2.9	Normal (2/3)	0.0 \pm 0.0	11.6 \pm 12.5
	Day 90	1017 \pm 6	6.2 \pm 0.7	20 \pm 11	Negative (5/5)	20 \pm 11	Normal (5/5)	1.1 \pm 2.23	Normal (5/5)	0.2 \pm 0.4	7.0 \pm 10.9
Sham	Day 2	1025 \pm 0	5.6 \pm 0.5	25 \pm 0	Positive (2/3)	58 \pm 28	Normal (3/3)	23.3 \pm 23.6	Normal (2/3)	1.0 \pm 0.0	15.0 \pm 8.6
	Day 10	1021 \pm 7	6.0 \pm 0.9	16 \pm 14	Positive (2/3)	33 \pm 38	Normal (3/3)	6.6 \pm 7.6	Normal (2/3)	0.0 \pm 0.0	8.3 \pm 14.4
	Day 90	1019 \pm 4	6.2 \pm 0.2	143 \pm 237.	Negative (4/5)	20 \pm 11	Normal (5/5)	6.8 \pm 5.47	Normal (5/5)	0.0 \pm 0.0	6.0 \pm 5.5

Table S11. Relative weight of organs in males. The weight of each organ was normalized against the net weight of the animals. The data obtained from the animals euthanized at days 2, 10 and 90 is shown. Ordered by experimental group, the descriptive statistics of centralization and dispersion (mean and standard deviation) and the statistical significance obtained by the one-way non-parametric ANOVA (Kruskal-Wallis test, according to the levels of significance (*) $p < 0.05$ and (**) $p < 0.01$ are included). MI-ADSC-CS, MI-CS and Sham-ADSC-CS vs Sham control group results are represented. Analysis was performed in 3 animals per each experimental group and sex for day 2 and 10 post-implant and in 5 animals for day 90 post-implant.

MALES		Relative weight of organs (%)										
		Spleen	Brain	Heart	Liver	Thyroids	Kidney		Adrenals		Testis	
							Right	Left	Right	Left	Right	Left
MI-ADSC-CS	Day 2	0.200 ± 0.023	0.561 ± 0.036	0.251 ± 0.139	3.651 ± 0.243	0.009 ± 0.002	0.393 ± 0.020	0.366 ± 0.022	0.011 ± 0.001	0.011 ± 0.001	0.376 ± 0.070	0.416 ± 0.056
	Day 10	0.198 ± 0.031	0.578 ± 0.030	0.366 ± 0.021	3.015 ± 0.235	0.021 ± 0.008	0.344 ± 0.014	0.347 ± 0.022	0.010 ± 0.002	0.012 ± 0.001	0.425 ± 0.011	0.499 ± 0.176
	Day 90	0.185 ± 0.033	0.508 ± 0.086	0.354 ± 0.087	3.288 ± 0.148	0.023 ± 0.005	0.313 ± 0.030	0.313 ± 0.034	0.009 ± 0.002	0.010 ± 0.001	0.312 ± 0.038	0.365 ± 0.058
MI-CS	Day 2	0.193 ± 0.006	0.533 ± 0.048	0.394 ± 0.041	3.634 ± 0.174	0.028 ± 0.008	0.361 ± 0.024	0.361 ± 0.004	0.010 ± 0.003	0.011 ± 0.001	0.410 ± 0.039	0.404 ± 0.034
	Day 10	0.175 ± 0.009	0.576 ± 0.058	0.341 ± 0.020	3.129 ± 0.174	0.032 ± 0.004	0.358 ± 0.009	0.341 ± 0.011	0.011 ± 0.001	0.013 ± 0.003	0.458 ± 0.036	0.459 ± 0.032
	Day 90	0.146 ± 0.014	0.454 ± 0.021	0.285 ± 0.022	3.059 ± 0.220	0.020 ± 0.004	0.310 ± 0.019	0.310 ± 0.015	0.009 ± 0.003	0.008 ± 0.001	0.341 ± 0.021	0.333 ± 0.025
Sham-ADSC-CS	Day 2	0.198 ± 0.020	0.555 ± 0.022	0.310 ± 0.014	3.882 ± 0.205	0.029 ± 0.003	0.392 ± 0.021	0.388 ± 0.009	0.011 ± 0.002	0.010 ± 0.002	0.414 ± 0.024	0.443 ± 0.028
	Day 10	0.207 ± 0.006	0.521 ± 0.014	0.352 ± 0.014	3.448 ± 0.100	0.037 ± 0.001	0.356 ± 0.022	0.370 ± 0.019	0.012 ± 0.001	0.011 ± 0.002	0.419 ± 0.022	0.409 ± 0.018
	Day 90	0.142 ± 0.003	0.440 ± 0.003	0.333 ± 0.010	3.170 ± 0.035	0.137 ± 0.163	0.323 ± 0.004	0.331 ± 0.022	0.007 ± 0.000	0.006 ± 0.001	0.345 ± 0.002	0.353 ± 0.003
Sham	Day 2	0.197 ± 0.012	0.538 ± 0.031	0.280 ± 0.019	3.723 ± 0.369	0.008 ± 0.001	0.370 ± 0.010	0.381 ± 0.007	0.010 ± 0.002	0.010 ± 0.002	0.420 ± 0.040	0.410 ± 0.048
	Day 10	0.185 ± 0.015	0.601 ± 0.022	0.292 ± 0.011	3.223 ± 0.240	0.031 ± 0.005	0.375 ± 0.029	0.367 ± 0.025	0.010 ± 0.002	0.011 ± 0.002	0.456 ± 0.024	0.453 ± 0.018
	Day 90	0.155 ± 0.014	0.461 ± 0.039	0.311 ± 0.026	3.507 ± 0.308	0.020 ± 0.004	0.338 ± 0.022	0.334 ± 0.031	0.010 ± 0.002	0.007 ± 0.001	0.359 ± 0.041	0.359 ± 0.045

Table S12. Relative weight of organs in females. The weight of each organ was normalized against the net weight of the animals. The data obtained from the animals euthanized at days 2, 10 and 90 is shown. Ordered by experimental group, the descriptive statistics of centralization and dispersion (mean and standard deviation) and the statistical significance obtained by the one-way non-parametric ANOVA (Kruskal-Wallis test, according to the levels of significance (*) $p < 0.05$ and (**) $p < 0.01$ are included). MI-ADSC-CS, MI-CS and Sham-ADSC-CS vs Sham control group results are represented. Analysis was performed in 3 animals per each experimental group and sex for day 2 and 10 post-implant and in 5 animals for day 90 post-implant.

FEMALES		Relative weight of organs (%)										
		Spleen	Brain	Heart	Liver	Thyroids	Kidney		Adrenals		Ovary	
							Right	Left	Right	Left	Right	Left
MI-ADSC-CS	Day 2	0.199 ± 0.015	0.926 ± 0.050	0.428 ± 0.065	3.681 ± 0.252	0.011 ± 0.003	0.382 ± 0.023	0.389 ± 0.029	0.022 ± 0.003	0.021 ± 0.004	0.028 ± 0.007	0.027 ± 0.006
		0.230 ± 0.027	0.954 ± 0.025	0.393 ± 0.031	3.252 ± 0.382	0.024 ± 0.001	0.247 ± 0.214	0.248 ± 0.215	0.020 ± 0.001	0.022 ± 0.003	0.026 ± 0.005	0.026 ± 0.005
	Day 90	0.162 ± 0.049	0.803 ± 0.009	0.397 ± 0.023(*)	3.136 ± 0.130	0.012 ± 0.002(*)	0.359 ± 0.014	0.349 ± 0.009	0.016 ± 0.002	0.019 ± 0.002	0.019 ± 0.005	0.023 ± 0.003
MI-CS	Day 2	0.213 ± 0.012	0.906 ± 0.076	0.435 ± 0.045	3.758 ± 0.224	0.040 ± 0.011	0.3983 ± 0.013	0.399 ± 0.021	0.020 ± 0.001	0.020 ± 0.001	0.024 ± 0.006	0.024 ± 0.004
		0.198 ± 0.027	0.890 ± 0.046	0.455 ± 0.037	3.410 ± 0.396	0.041 ± 0.004	0.370 ± 0.010	0.383 ± 0.020	0.016 ± 0.003	0.018 ± 0.004	0.022 ± 0.004	0.026 ± 0.005
	Day 90	0.185 ± 0.021	0.813 ± 0.134	0.383 ± 0.065	3.370 ± 0.394	0.011 ± 0.003 (*)	0.349 ± 0.010	0.359 ± 0.011	0.015 ± 0.003	0.017 ± 0.002	0.018 ± 0.001	0.018 ± 0.003
Sham-ADSC-CS	Day 2	0.229 ± 0.004	0.877 ± 0.076	0.339 ± 0.006	4.233 ± 0.394	0.038 ± 0.012	0.402 ± 0.020	0.406 ± 0.020	0.024 ± 0.001	0.024 ± 0.001	0.020 ± 0.003	0.024 ± 0.006
		0.210 ± 0.014	0.944 ± 0.038	0.419 ± 0.085	3.307 ± 0.054	0.048 ± 0.001	0.376 ± 0.012	0.377 ± 0.015	0.020 ± 0.001	0.022 ± 0.001	0.025 ± 0.001	0.026 ± 0.001
	Day 90	0.208 ± 0.019(*)	0.833 ± 0.076	0.355 ± 0.034	3.219 ± 0.412	0.039 ± 0.007	0.370 ± 0.016	0.373 ± 0.026	0.020 ± 0.187	0.019 ± 0.004	0.029 ± 0.002(*)	0.036 ± 0.006(*)
Sham	Day 2	0.216 ± 0.014	0.879 ± 0.072	0.357 ± 0.031	3.833 ± 0.150	0.009 ± 0.003	0.405 ± 0.025	0.387 ± 0.008	0.020 ± 0.001	0.021 ± 0.001	0.023 ± 0.003	0.026 ± 0.002
		0.228 ± 0.019	0.886 ± 0.019	0.348 ± 0.021	3.427 ± 0.183	0.040 ± 0.012	0.372 ± 0.014	0.3763 ± 0.019	0.019 ± 0.001	0.021 ± 0.003	0.021 ± 0.002	0.025 ± 0.005
	Day 90	0.157 ± 0.009	0.757 ± 0.031	0.305 ± 0.025	3.189 ± 0.331	0.036 ± 0.005	0.358 ± 0.033	0.358 ± 0.030	0.017 ± 0.002	0.017 ± 0.001	0.019 ± 0.004	0.019 ± 0.002