Hagen et al., Supplementary file 1: Adapted Grogan score for semiquantitative analysis of chondrogenic differentiation

Score categories	Score
A) Uniformity and lightblue*1/ blueish*2 of Alcian blue/ Masson's Trichrome stain	
No stain	0
Weak staining of poorly formed matrix	1
Moderately even staining	2
Even strong stain	3
B) Distance between cells/ amount of matrix accumulated	
High cell densities with no matrix in between (no spacing between cells)	0
High cell densities with little matrix in between (cells < 1 cell-size apart)	1
Moderate cell density with matrix (cells approx. 1 cell-size apart)	2
Low cell density with moderate distance between cells (> 1 cell) and an extensive matrix	3
C) Cell morphologies represented	
Condensed/ necrotic/ pycnotic bodies	0
Spindle/ fibrous	1
Mixed spindle/ fibrous with rounded chondrogenic morphology	2
Majority rounded/ chondrogenic	3
D) % of differentiated areas of the pellet in field of view (10x magnification)	
0 - 5%	0
5 - 30%	1
30 - 60%	2
60 - 100%	3
* <sup>1</sup> = Alcian blue staining	÷
*2= Masson's Trichrome staining	