













## Supplementary Data

SUPPLEMENTARY TABLE S1. EXOGLYCOSIDASE DIGESTIONS OF ENDO- $\beta$ -N-ACETYLGLUCOSAMINIDASE H RELEASED N-GLYCANS DERIVED FROM UNDIFFERENTIATED AND ADIPOGENICALLY DIFFERENTIATED BONE MARROW MESENCHYMAL STEM CELLS

Found N-glycan structures			Cell type			Consecutive enzymatic digestions			
<i>m/z</i>	Composition	Proposed structure	MSC	A day 5	A day 15	N	G4	H	M
926.4	H3N1		x	x	x	ud	ud	ud	ud
1130.5	H4N1		x	x	x	ud	ud	ud	ud
1334.6	H5N1		x	x	x	ud	ud	ud	d
1538.7	H6N1		x	x	x	ud	ud	ud	d
1579.7	H5N2		x	x	x	ud	d	d	d
1742.8	H7N1		x	x	x	ud	ud	ud	d
1783.8	H6N2		x	x	x	ud	d	d	d
1940.9	S1H5N2		x	x	x	d	d	d	d
1946.9	H8N1	2x 	x	x	x	ud	ud	ud	d
2145.0	S1H6N2		x	x	x	d	d	d	d
2151.0	H9N1		x	x	x	ud	ud	ud	d
2355.1	H10N1		x	x	x	ud	ud	ud	d

x denotes the presence of a peak in the MALDI-TOF mass spectra of the corresponding N-glycome of MSCs or adipogenically differentiated MSCs (A) day 5 and 15 of differentiation.

N, *Arthrobacter ureafaciens* neuraminidase; G4,  $\beta$ (1-4) galactosidase from *Streptococcus pneumoniae*; H,  $\beta$ -N-acetylhexosaminidase recombinant from *Streptococcus pneumoniae*, expressed in *Escherichia coli*; M,  $\alpha$ Mannosidase from *Canavalia ensiformis*; d, digested; ud, undigested; H, hexose; N, N-acetylhexosamine; S, N-acetylneuraminic acid; MALDI-TOF, matrix-assisted laser desorption-ionization-time of flight mass spectrometry; MSCs, mesenchymal stem cells.