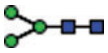
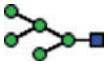
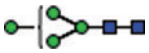
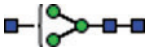
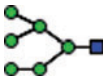
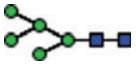
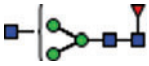
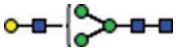
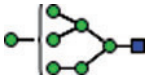
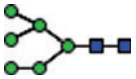
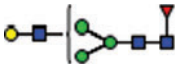
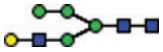
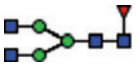
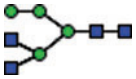
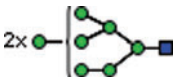
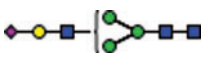
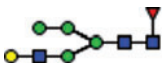
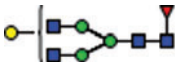
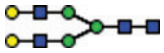
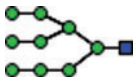
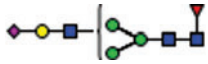
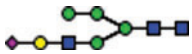
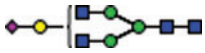
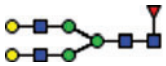
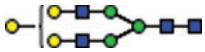
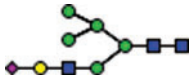
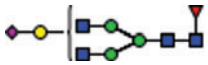
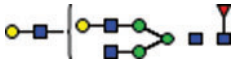
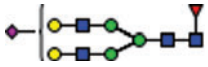
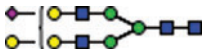
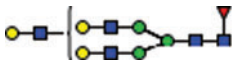
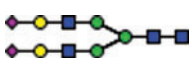
Supplementary Table S2. Exoglycosidase Digestions of Peptide-N4-(*N*-acetyl-β-Glucosaminyl) Asparagine Amidase F-Released N-Glycans Derived from Undifferentiated and Adipogenically Differentiated Bone Marrow Mesenchymal Stem Cells

Found N-glycan structures			*Cell type*			*Consecutive enzymatic digestions*			
m/z	*Composition*	*Proposed structure*	*MSC*	*A day 5*	*A day 15*	*N*	*G*	*H*	*F*
1171.6	H3N2		X	x	x	ud	ud	ud	ud
1334.6	H5N1		X	x	x	ud	ud	ud	ud
1345.6	H3N2F1		X	x	x	ud	ud	ud	d
1375.6	H4N2		X	x	x	ud	ud	ud	ud
1416.7	H3N3		X	x	x	ud	ud	d	ud
1538.7	H6N1		X	x	x	ud	ud	ud	ud
1579.7	H5N2		X	x	x	ud	ud	ud	ud
1590.8	H3N3F1		X	x	x	ud	ud	d	d
1620.8	H4N3		X	x	x	ud	d	d	ud
1742.8	H7N1		X	x	x	ud	ud	ud	ud
1783.8	H6N2		X	x	x	ud	ud	ud	ud
1794.9	H4N3F1		X	x	x	ud	d	d	d
1824.9	H5N3		X	x	x	ud	d	d	ud
1835.9	H3N4F1		X	x	x	ud	ud	d	d
1865.9	H4N4		X	x	x	ud	ud	d	ud
1940.9	S1H5N2		X	x	x	d	d	d	ud
1946.9	H8N1		X	x	x	ud	ud	ud	ud
1981.9	S1H4N3		X	x	x	d	d	d	ud
1999.0	H5N3F1		X	x	x	ud	d	d	d
2040.0	H4N4F1		X	x	x	ud	d	d	d

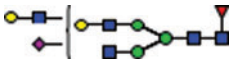
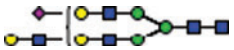
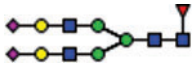
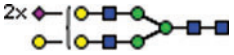
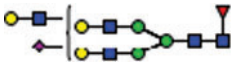
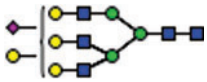
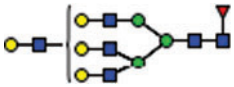
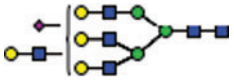
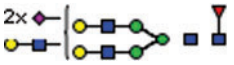
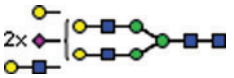
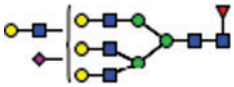
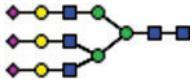
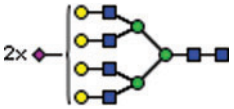
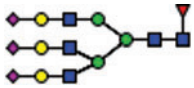
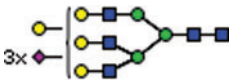
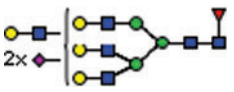
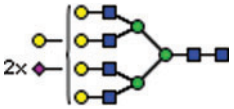
(*continued*)

Supplementary Table S2. (Continued)

Found N-glycan structures			*Cell type*			*Consecutive enzymatic digestions*			
m/z	*Composition*	*Proposed structure*	*MSC*	*A day 5*	*A day 15*	*N*	*G*	*H*	*F*
2070.0	H5N4		X	x	x	ud	d	d	ud
2145.0	S1H6N2		X	x	x	d	d	d	ud
2151.0	H9N1		X	x	x	ud	ud	ud	ud
2156.0	S1H4N3F1		X	x	x	d	d	d	d
2186.0	S1H5N3		X	x	x	d	d	d	ud
2227.1	S1H4N4		X	x	x	d	d	d	ud
2244.1	H5N4F1		X	x	x	ud	d	d	d
2274.1	H6N4		X	x	x	ud	d	d	ud
2360.1	S1H5N3F1		X	x	x	d	d	d	d
2390.1	S1H6N3		X	x	x	d	d	d	ud
2401.1	S1H4N4F1		X	x	x	d	d	d	d
2431.2	S1H5N4		X	x	x	d	d	d	ud
2461.2	G1H5N4		X	x	x	d	d	d	ud
2489.2	H5N5F1		X	x	x	ud	d	d	d
2519.2	H6N5		X	x	x	ud	d	d	ud
2605.3	S1H5N4F1		X	x	x	d	d	d	d
2635.3	S1H6N4		X	x	x	d	d	d	d
2693.3	H6N5F1		X	x	x	ud	d	d	d
2751.3	S2H6N3		X	x		d	d	d	ud
2792.3	S2H5N4		X	x	x	d	d	d	ud

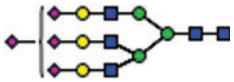
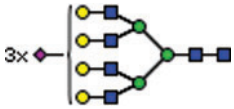
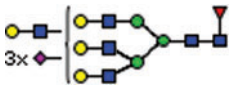
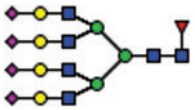
(*continued*)

Supplementary Table S2. (Continued)

Found N-glycan structures			*Cell type*			*Consecutive enzymatic digestions*			
m/z	*Composition*	*Proposed structure*	*MSC*	*A day 5*	*A day 15*	*N*	*G*	*H*	*F*
2850.4	S1H5N5F1		X	x	x	d	d	d	d
2880.4	S1H6N5		X	x	x	d	d	d	ud
2966.4	S2H5N4F1		X	x	x	d	d	d	d
2996.4	S2H6N4		X	x	x	d	d	d	d
3054.5	S1H6N5F1		X	x	x	d	d	d	d
3084.5	H7N5S1		X	x	x	d	d	d	d
3142.5	H7N6F1		X	x	x	ud	d	d	d
3329.6	S1H7N6		X	x	x	d	d	d	ud
3415.7	S2H6N5F1		X	x	x	d	d	d	d
3445.7	S2H7N5		X	x	x	d	d	d	d
3503.7	S1H7N6F1		X	x	x	d	d	d	d
3602.7	S3H6N5		X	x	x	d	d	d	ud
3690.8	S2H7N6		X	x	x	d	d	d	ud
3776.8	S3H6N5F1		X	x	x	d	d	d	d
3806.8	S3H7N5		X	x	x	d	d	d	d
3864.9	S2H7N6F1		X	x	x	d	d	d	d
3894.9	S2H8N6		X	x		d	d	d	d

(*continued*)

Supplementary Table S2. (Continued)

Found N-glycan structures			*Cell type*			*Consecutive enzymatic digestions*			
m/z	*Composition*	*Proposed structure*	*MSC*	*A day 5*	*A day 15*	*N*	*G*	*H*	*F*
3964.9	S4H6N5			x	x	d	d	d	ud
4052.0	S3H7N6		X			d	d	d	ud
4226.1	S3H7N6F1		X	x	x	d	d	d	d
4587.3	S4H7N6F1		X	x	x	d	D	d	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. Note that some low abundant structures were not observed in the mass spectrum after exoglycosidase digestion and were therefore, not listed here.

N, *Arthrobacter ureafaciens* neuraminidase; G, bovine testes β-galactosidase; H, β-*N*-acetylhexosaminidase recombinant from *Streptococcus pneumoniae*, expressed in *Escherichia coli*; F, bovine kidney α(1–2,3,4,6) fucosidase; d, digested; ud, undigested; H, hexose; N, *N*-acetylhexosamine; F, deoxyhexose; S, *N*-acetylneuraminic acid.