Supplemental Figure 11: Differences in morphological profiles of siCOBLL- and siNT-treated AMSCs at day14 of differentiation. AP features, Adipocyte Profiler feature name; pvalue, q-value, t-statistics of comparison.

AP features	pvalue	q-value	t-statistics
Cells_AreaShape_Area	0.0243	0.0360	4.2101
Cells_AreaShape_Extent	0.0332	0.0396	-3.3896
Cells_AreaShape_MajorAxisLength	0.0249	0.0366	3.5869
Cells_AreaShape_MaxFeretDiameter	0.0121	0.0253	4.7060
Cells_AreaShape_Perimeter	0.0109	0.0253	7.1338
Cells_AreaShape_Zernike_4_4	0.0342	0.0404	-3.5356
Cells_Children_LargeBODIPYObjects_Count	0.0064	0.0253	-7.3667
Cells_Correlation_Correlation_BODIPY_AGP	0.0062	0.0253	5.6509
Cells_Correlation_Correlation_Mito_AGP	0.0350	0.0407	3.7886
Cells_Correlation_Correlation_Mito_BODIPY	0.0138	0.0262	4.3484
Cells_Correlation_K_Mito_AGP	0.0319	0.0392	3.3510
Cells_Correlation_K_Mito_BODIPY	0.0264	0.0375	4.0663
Cells_Granularity_11_BODIPY	0.0486	0.0491	2.8876
Cells_Granularity_3_BODIPY	0.0484	0.0489	-3.5220
Cells_Granularity_8_Mito	0.0448	0.0468	2.9000
Cells_Intensity_IntegratedIntensity_AGP	0.0102	0.0253	7.9337
Cells_Intensity_IntegratedIntensityEdge_AGP	0.0127	0.0253	8.5298
Cells_Intensity_IntegratedIntensityEdge_BODIPY	0.0407	0.0442	-3.3538
Cells_Intensity_LowerQuartileIntensity_AGP	0.0028	0.0253	6.8475
Cells_Intensity_LowerQuartileIntensity_BODIPY	0.0115	0.0253	-4.4546
Cells_Intensity_MADIntensity_AGP	0.0149	0.0271	4.7567
Cells_Intensity_MassDisplacement_BODIPY	0.0019	0.0214	11.2167
Cells_Intensity_MassDisplacement_Mito	0.0002	0.0147	21.7339
Cells_Intensity_MaxIntensity_AGP	0.0128	0.0253	4.6331
Cells_Intensity_MaxIntensityEdge_AGP	0.0037	0.0253	9.3496
Cells_Intensity_MeanIntensity_AGP	0.0032	0.0253	6.4003
Cells_Intensity_MeanIntensityEdge_AGP	0.0104	0.0253	8.1166
Cells_Intensity_MedianIntensity_AGP	0.0031	0.0253	6.4014
Cells_Intensity_MinIntensity_AGP	0.0008	0.0164	9.1612
Cells_Intensity_MinIntensityEdge_AGP	0.0007	0.0164	10.2839
Cells_Intensity_MinIntensityEdge_BODIPY	0.0117	0.0253	-4.4907
Cells_Intensity_StdIntensity_AGP	0.0122	0.0253	5.2030
Cells_Intensity_StdIntensityEdge_AGP	0.0047	0.0253	6.9709
Cells_Intensity_UpperQuartileIntensity_AGP	0.0041	0.0253	6.1030
Cells_Mean_LargeBODIPYObjects_AreaShape_Center_X	0.0170	0.0291	-5.0200
Cells_Mean_LargeBODIPYObjects_AreaShape_Center_Z	0.0088	0.0253	-5.0592
Cells_Mean_LargeBODIPYObjects_AreaShape_Compactness	0.0088	0.0253	-5.5559
Cells_Mean_LargeBODIPYObjects_AreaShape_Eccentricity	0.0073	0.0253	-5.2952
Cells_Mean_LargeBODIPYObjects_AreaShape_EulerNumber	0.0087	0.0253	-5.0830
Cells_Mean_LargeBODIPYObjects_AreaShape_Extent	0.0129	0.0253	-4.5815
Cells_Mean_LargeBODIPYObjects_AreaShape_FormFactor	0.0207	0.0323	-4.1719

Cells_Mean_LargeBODIPYObjects_AreaShape_Solidity	0.0108	0.0253	-4.7739
Cells_Mean_LargeBODIPYObjects_Correlation_Correlation_BODIPY_AGP	0.0000	0.0060	45.0534
Cells_Mean_LargeBODIPYObjects_Correlation_Correlation_Mito_AGP	0.0029	0.0253	-6.9109
Cells_Mean_LargeBODIPYObjects_Correlation_Correlation_Mito_BODIPY	0.0004	0.0164	10.7637
Cells_Mean_LargeBODIPYObjects_Correlation_K_AGP_BODIPY	0.0302	0.0386	-3.4324
Cells_Mean_LargeBODIPYObjects_Correlation_K_Mito_AGP	0.0260	0.0374	3.4761
Cells_Mean_LargeBODIPYObjects_Correlation_K_Mito_BODIPY	0.0279	0.0381	3.4429
Cells_Mean_LargeBODIPYObjects_Correlation_Overlap_BODIPY_AGP	0.0168	0.0290	-4.1035
Cells_Mean_LargeBODIPYObjects_Correlation_Overlap_Mito_AGP	0.0098	0.0253	-4.8818
Cells_Mean_LargeBODIPYObjects_Correlation_Overlap_Mito_BODIPY	0.0161	0.0283	-4.2111
Cells_Mean_LargeBODIPYObjects_Granularity_10_BODIPY	0.0208	0.0323	5.2476
Cells_Mean_LargeBODIPYObjects_Granularity_3_BODIPY	0.0045	0.0253	-5.7960
Cells_Mean_LargeBODIPYObjects_Intensity_MinIntensity_BODIPY	0.0176	0.0297	-4.0559
Cells_Mean_LargeBODIPYObjects_Intensity_MinIntensityEdge_BODIPY	0.0177	0.0297	-4.0507
Cells_Mean_LargeBODIPYObjects_Location_Center_X	0.0170	0.0291	-5.0212
Cells_Mean_LargeBODIPYObjects_Location_CenterMassIntensity_X_BODIPY	0.0170	0.0291	-5.0216
Cells_Mean_LargeBODIPYObjects_Location_MaxIntensity_X_BODIPY	0.0171	0.0291	-5.0256
Cells_Mean_LargeBODIPYObjects_Number_Object_Number	0.0012	0.0177	-8.3021
Cells_Neighbors_FirstClosestDistance_10	0.0110	0.0253	5.1159
Cells_Neighbors_FirstClosestDistance_Adjacent	0.0110	0.0253	5.1159
Cells_Neighbors_FirstClosestObjectNumber_10	0.0139	0.0262	-4.5929
Cells_Neighbors_FirstClosestObjectNumber_Adjacent	0.0139	0.0262	-4.5929
Cells_Neighbors_SecondClosestDistance_10	0.0271	0.0378	4.6651
Cells_Neighbors_SecondClosestDistance_Adjacent	0.0271	0.0378	4.6651
Cells_Neighbors_SecondClosestObjectNumber_10	0.0126	0.0253	-4.6259
Cells_Neighbors_SecondClosestObjectNumber_Adjacent	0.0126	0.0253	-4.6259
Cells_Number_Object_Number	0.0127	0.0253	-4.6547
Cells_RadialDistribution_FracAtD_Mito_1of4	0.0294	0.0386	3.6724
Cells_RadialDistribution_MeanFrac_AGP_3of4	0.0449	0.0468	2.8836
Cells_RadialDistribution_MeanFrac_Mito_4of4	0.0195	0.0316	-4.6966
Cells_RadialDistribution_RadialCV_AGP_4of4	0.0262	0.0375	-3.7993
Cells_RadialDistribution_RadialCV_BODIPY_2of4	0.0376	0.0423	3.0617
Cells_RadialDistribution_RadialCV_Mito_2of4	0.0051	0.0253	5.5567
Cells_Texture_AngularSecondMoment_AGP_20_00	0.0421	0.0451	-2.9748
Cells_Texture_AngularSecondMoment_Mito_10_01	0.0376	0.0423	4.6736
Cells_Texture_Contrast_AGP_10_00	0.0448	0.0468	3.1024
Cells_Texture_Correlation_AGP_20_01	0.0272	0.0378	4.7706
Cells_Texture_Correlation_BODIPY_10_01	0.0388	0.0431	4.2045
Cells_Texture_Correlation_Mito_5_02	0.0059	0.0253	5.8347
Cells_Texture_DifferenceEntropy_AGP_5_00	0.0357	0.0411	3.3332
Cells_Texture_DifferenceEntropy_Mito_20_01	0.0460	0.0475	-3.1953
Cells_Texture_DifferenceVariance_Mito_10_01	0.0395	0.0436	4.7080
Cells_Texture_Entropy_AGP_5_01	0.0182	0.0300	4.3073

Cells_Texture_Entropy_Mito_20_00	0.0403	0.0439	-3.4410
Cells_Texture_InfoMeas1_AGP_20_00	0.0363	0.0413	-3.8141
Cells_Texture_InfoMeas1_BODIPY_5_02	0.0399	0.0437	-3.0024
Cells_Texture_InfoMeas1_Mito_10_01	0.0206	0.0323	-4.7398
Cells_Texture_InverseDifferenceMoment_AGP_20_03	0.0471	0.0481	-3.6963
Cells_Texture_InverseDifferenceMoment_Mito_20_01	0.0208	0.0323	3.7009
Cells_Texture_SumAverage_AGP_20_03	0.0128	0.0253	5.6297
Cells_Texture_SumEntropy_AGP_5_01	0.0159	0.0282	5.1481
Cells_Texture_SumEntropy_Mito_20_03	0.0466	0.0479	-3.2644
Cells_Texture_SumVariance_AGP_5_02	0.0096	0.0253	6.0441
Cells_Texture_Variance_AGP_5_02	0.0122	0.0253	5.3694
Cytoplasm_AreaShape_Area	0.0261	0.0374	4.1195
Cytoplasm_AreaShape_Compactness	0.0153	0.0276	4.2984
Cytoplasm_AreaShape_Extent	0.0166	0.0290	-4.1935
Cytoplasm_AreaShape_FormFactor	0.0064	0.0253	-7.7320
Cytoplasm_AreaShape_MajorAxisLength	0.0241	0.0359	3.6067
Cytoplasm_AreaShape_MaxFeretDiameter	0.0121	0.0253	4.7060
Cytoplasm_AreaShape_Perimeter	0.0081	0.0253	7.2861
Cytoplasm_AreaShape_Zernike_8_8	0.0483	0.0489	-2.8355
Cytoplasm_Correlation_Correlation_BODIPY_AGP	0.0055	0.0253	5.8211
Cytoplasm_Correlation_Correlation_Mito_BODIPY	0.0090	0.0253	4.9344
Cytoplasm_Correlation_K_Mito_AGP	0.0299	0.0386	3.4021
Cytoplasm_Correlation_K_Mito_BODIPY	0.0258	0.0373	4.0678
Cytoplasm_Granularity_11_BODIPY	0.0471	0.0481	2.9069
Cytoplasm_Granularity_9_BODIPY	0.0458	0.0475	3.8191
Cytoplasm_Granularity_9_Mito	0.0292	0.0386	5.3502
Cytoplasm_Intensity_IntegratedIntensity_AGP	0.0113	0.0253	7.7759
Cytoplasm_Intensity_IntegratedIntensityEdge_AGP	0.0111	0.0253	8.6662
Cytoplasm_Intensity_IntegratedIntensityEdge_BODIPY	0.0407	0.0442	-3.3431
Cytoplasm_Intensity_LowerQuartileIntensity_AGP	0.0031	0.0253	6.9773
Cytoplasm_Intensity_LowerQuartileIntensity_BODIPY	0.0105	0.0253	-4.5561
Cytoplasm_Intensity_MADIntensity_AGP	0.0127	0.0253	4.7144
Cytoplasm_Intensity_MassDisplacement_BODIPY	0.0017	0.0206	11.3823
Cytoplasm_Intensity_MassDisplacement_Mito	0.0003	0.0147	21.6648
Cytoplasm_Intensity_MaxIntensity_AGP	0.0126	0.0253	4.6396
Cytoplasm_Intensity_MaxIntensityEdge_AGP	0.0058	0.0253	5.3742
Cytoplasm_Intensity_MeanIntensity_AGP	0.0029	0.0253	6.4794
Cytoplasm_Intensity_MeanIntensityEdge_AGP	0.0059	0.0253	8.2149
Cytoplasm_Intensity_MedianIntensity_AGP	0.0026	0.0253	6.6893
Cytoplasm_Intensity_MinIntensity_AGP	0.0008	0.0164	9.1879
Cytoplasm_Intensity_MinIntensity_BODIPY	0.0201	0.0323	-3.7593
Cytoplasm_Intensity_MinIntensityEdge_AGP	0.0007	0.0164	10.2880
Cytoplasm_Intensity_MinIntensityEdge_BODIPY	0.0188	0.0308	-3.8421

Cytoplasm_Intensity_StdIntensity_AGP	0.0115	0.0253	5.1045
Cytoplasm_Intensity_StdIntensityEdge_AGP	0.0074	0.0253	5.0802
Cytoplasm_Intensity_UpperQuartileIntensity_AGP	0.0037	0.0253	6.0958
Cytoplasm_Number_Object_Number	0.0127	0.0253	-4.6547
Cytoplasm_Parent_Cells	0.0127	0.0253	-4.6547
Cytoplasm_RadialDistribution_FracAtD_Mito_1of4	0.0233	0.0348	-3.6518
Cytoplasm_RadialDistribution_RadialCV_AGP_1of4	0.0001	0.0101	-14.9563
Cytoplasm_RadialDistribution_RadialCV_BODIPY_2of4	0.0156	0.0279	4.1361
Cytoplasm_RadialDistribution_RadialCV_Mito_4of4	0.0017	0.0208	7.6019
Cytoplasm_Texture_AngularSecondMoment_Mito_10_01	0.0309	0.0390	5.1197
Cytoplasm_Texture_Contrast_AGP_5_02	0.0466	0.0479	3.0394
Cytoplasm_Texture_Correlation_AGP_20_01	0.0325	0.0392	3.7190
Cytoplasm_Texture_Correlation_BODIPY_5_01	0.0466	0.0479	2.9766
Cytoplasm_Texture_Correlation_Mito_5_02	0.0125	0.0253	5.3732
Cytoplasm_Texture_DifferenceEntropy_AGP_5_00	0.0297	0.0386	3.4155
Cytoplasm_Texture_DifferenceEntropy_Mito_20_01	0.0408	0.0442	-3.3896
Cytoplasm_Texture_DifferenceVariance_Mito_10_01	0.0360	0.0412	4.9768
Cytoplasm_Texture_Entropy_AGP_5_01	0.0325	0.0392	4.0343
Cytoplasm_Texture_Entropy_Mito_20_00	0.0346	0.0404	-3.6911
Cytoplasm_Texture_InfoMeas1_AGP_20_03	0.0488	0.0492	-3.8374
Cytoplasm_Texture_InfoMeas1_BODIPY_5_02	0.0417	0.0449	-2.9574
Cytoplasm_Texture_InfoMeas1_Mito_10_02	0.0142	0.0265	-5.3994
Cytoplasm_Texture_InverseDifferenceMoment_AGP_20_01	0.0432	0.0457	-3.7076
Cytoplasm_Texture_InverseDifferenceMoment_Mito_20_01	0.0178	0.0297	3.8919
Cytoplasm_Texture_SumAverage_AGP_20_03	0.0142	0.0265	5.4477
Cytoplasm_Texture_SumEntropy_AGP_5_01	0.0294	0.0386	4.7114
Cytoplasm_Texture_SumEntropy_Mito_10_03	0.0493	0.0495	-3.1907
Cytoplasm_Texture_SumVariance_AGP_5_02	0.0110	0.0253	5.6227
Cytoplasm_Texture_Variance_AGP_5_02	0.0143	0.0266	5.0206