

Supplemental table 1. Genetic aberrations found in paired MSCs and PCs of MM patients.

Patients ID number	Cell type	p53 deletion	1q21 amplification	RB-1 deletion	D13S319 deletion	IGH translocation
1	MSC	-	-	-	-	-
	PC	-	+	-	-	-
2	MSC	-	-	-	-	-
	PC	-	-	+	+	-
3	MSC	-	-	-	-	-
	PC	-	-	+	+	-
4	MSC	-	-	-	-	-
	PC	-	-	-	-	+
5	MSC	-	-	-	-	-
	PC	-	+	-	-	-
6	MSC	-	-	-	-	-
	PC	+	-	-	-	-

PC, plasma cells; MSC, mesenchymal stem cell; IGH, immunoglobulin heavy chain. Interphase fluorescence in situ hybridization (FISH) analysis was performed.

Supplementary Figure 1. The detailed characteristics of MM-MSCs. As measured by flow cytometry, all the MM-MSCs expressed CD73, CD90 and CD105 (95%). In addition, these cells lacked expression of CD14, CD19, CD34, CD45 and HLA-DR ($\leq 2\%$).

Supplementary Figure 2. Adipocytes differentiation of MM-MSCs in vitro. Oil Red O staining was performed to demonstrate the adipocytes differentiation of MM-MSCs.

Supplementary Figure 3. Genetic aberrations detected by FISH in paired MSCs and PCs of MM patients. Interphase fluorescence in situ hybridization (FISH) analysis was performed in MM-MSCs and its paired CD138⁺ plasma cells from MM patients.