**Supplementary Table 2:** Adhesion genes (from Fig. 6A) categorized by a continuous downregulation across disease progression. Bone Marrow Plasma Cell (BMPC), Monoclonal Gammopathy of Undetermined Significance (MGUS), Smoldering Multiple Myeloma (sMM), Multiple Myeloma (MMM), Multiple Myeloma Relapse (MMR). p-adj. = adjusted p-values (Benj.-Hoch.).

Regulation during disease progression	Gene	Ensemble ID	Progression Free / Overall Survival	Better Prognosis with high/low	Association of expression with survival	
			Sarvivar	expression	[p-unc]	[p-adj]
FALSE	ADAMTS1	ENSG00000154734	Prog. Free	low	0.031875	0.084719
			Overall	low	0.048755	0.120104
	ADAMTS2	ENSG00000087116	Prog. Free	high	0.63795	0.767059
			Overall	high	0.811174	0.890528
	BGN	ENSG00000182492	Prog. Free	high	0.38065	0.533967
	DON		Overall	high	0.279004	0.426961
	CAVIN1	ENSG00000177469	Prog. Free	high	0.407479	0.548739
	CAVINI	EN3G0000177403	Overall	high	0.210903	0.3492
	CCDC80	ENSG00000091986	Prog. Free	high	0.002038	0.015833
	CCDC80	EN200000031380	Overall	high	0.023743	0.077356
	CCNIA	FNCC000004 43074	Prog. Free	high	0.285568	0.443729
	CCN1	ENSG00000142871	Overall	low	0.931563	0.961309
	00110	ENSG00000118523	Prog. Free	high	0.030562	0.083425
	CCN2		Overall	high	0.002889	0.024263
	CCNE2	ENSG00000175305	Prog. Free	low	0.012138	0.046195
			Overall	low	0.000534	0.008638
	CDH11	ENSG00000140937	Prog. Free	high	0.413948	0.550115
			Overall	high	0.044627	0.117163
	CEMIP	ENSG0000103888	Prog. Free	high	0.798984	0.877146
			Overall	low	0.287022	0.428378
	COL12A1	ENSG00000111799	Prog. Free	high	0.340978	0.491983
			Overall	low	0.829338	0.900679
	COL16A1	ENSG00000084636	Prog. Free	low	0.281112	0.443629
			Overall	low	0.162895	0.293792
	COL4A1	ENSG00000187498	Prog. Free	high	0.040286	0.098969
			Overall	high	0.009472	0.039863
	COL4A2	ENSG00000134871	Prog. Free	high	0.0124	0.046195
			Overall	high	0.175895	0.3063
		ENSG00000130635	Prog. Free	high	0.368403	0.524066
	COL5A1		Overall	low	0.860512	0.914414
	COL6A3	ENSG00000163359	Prog. Free	low	0.103315	0.208697
			Overall	low	0.197836	0.336625
	COL8A1	ENSG00000144810	Prog. Free	high	0.680745	0.807636
			Overall	high	0.289334	0.428378
	CREB3L1	ENSG00000157613	Prog. Free	low	0.165978	0.310441
			Overall	low	0.047989	0.120104
	EDIL3	ENSG00000164176	Prog. Free	high	0.863476	0.899083
			Overall	low	0.496663	0.611744

F3	ENSG00000117525	Prog. Free	high	0.091858	0.197397
гэ		Overall	high	0.009177	0.039863
5DN4	ENICO00004 CC4 47	Prog. Free	high	0.472247	0.603376
FBN1	ENSG00000166147	Overall	low	0.401546	0.533633
FINC	ENIC COOCOO 4 20 E 0 4	Prog. Free	high	0.18539	0.329735
FLNC	ENSG00000128591	Overall	low	0.474071	0.598515
FN14	FNICCO000011F414	Prog. Free	high	0.843432	0.896701
FN1	ENSG00000115414	Overall	low	0.421268	0.552573
FOSB	ENSC0000013E740	Prog. Free	low	0.585138	0.712035
FOSB	ENSG00000125740	Overall	high	0.942273	0.961309
CIA1	ENICCO00001F3CC1	Prog. Free	high	0.333512	0.491983
GJA1	ENSG00000152661	Overall	low	0.34262	0.467631
CDEN44	ENICCO00001 (C033	Prog. Free	high	0.457976	0.59302
GREM1	ENSG00000166923	Overall	low	0.591104	0.685623
UDECE	FNOOGOOOGO	Prog. Free	low	0.145103	0.281656
HBEGF	ENSG00000113070	Overall	low	0.051592	0.124067
HTRA1	ENSG00000166033	Prog. Free	high	0.01203	0.046195
HIRAI	EN300000100033	Overall	high	0.040407	0.116603
IGFBP3	ENSG00000146674	Prog. Free	high	0.248011	0.410641
IOI DF 3	LN3G00000140074	Overall	low	0.841566	0.904236
IGFBP7	ENSG00000163453	Prog. Free	low	0.009533	0.043766
IGI DI 7		Overall	low	0.024942	0.078722
ITGA11	ENSG00000137809  ENSG00000172059  ENSG00000091136	Prog. Free	high	0.97438	0.97438
IIGAII		Overall	low	0.966513	0.976178
KLF11		Prog. Free	low	0.229416	0.39273
KEI II		Overall	low	0.060892	0.133697
LAMB1		Prog. Free	high	0.477921	0.603376
		Overall	high	0.604163	0.685623
LOX	ENSG00000113083	Prog. Free	low	0.748901	0.840433
		Overall	low	0.035028	0.104055
MMP2	ENSG00000087245	Prog. Free	high	2.29E-05	0.002316
		Overall	high	0.044615	0.117163
NFKBIZ	ENSG00000144802	Prog. Free	high	0.725256	0.832396
		Overall	high	0.310216	0.441293
NR4A1	ENSG00000123358	Prog. Free	high	0.0214	0.065497
		Overall	high	0.060042	0.133697
NR4A2	ENSG00000153234	Prog. Free	high	0.275313	0.441375
		Overall	high	0.11176	0.217072
OSMR	ENSG00000145623 ENSG00000113721	Prog. Free	high	0.000567	0.007153
		Overall	high	0.01287	0.046422
PDGFRB		Prog. Free	high	0.691005	0.807636
		Overall	high	0.599357	0.685623
POSTN	ENSG00000133110	Prog. Free	low	0.858041	0.899083
		Overall	low	0.496348	0.611744
РТХ3	ENSG00000163661	Prog. Free	high	0.020943	0.065497
		Overall	high	0.045241	0.117163

	PXDN	ENSG0000130508	Prog. Free	low	0.403966	0.548739
			Overall	low	0.172495	0.305648
	SERPINE1	ENSG00000106366	Prog. Free	low	0.543711	0.669693
		L143G00000100300	Overall	high	0.869146	0.914414
	SERPINH1	ENSG00000149257	Prog. Free	low	0.001825	0.015833
		EN3G0000149237	Overall	low	0.004399	0.026138
	SIX1	ENSG00000126778	Prog. Free	high	0.784446	0.870649
			Overall	high	0.592089	0.685623
	SMAD3	ENSG00000166949	Prog. Free	low	0.027411	0.0791
	SIVIADS		Overall	low	0.016437	0.055338
	SPARC	ENSG00000113140	Prog. Free	high	0.073989	0.162455
	SPARC		Overall	high	0.244069	0.391285
	SPOCK1	ENSG00000152377	Prog. Free	low	0.531524	0.662765
	3FOCK1	EN300000132377	Overall	low	0.303273	0.437579
	SULF1	ENSG0000137573	Prog. Free	high	0.190403	0.331564
	JULI		Overall	high	0.388706	0.523458
	THBS2	ENSC0000196240	Prog. Free	low	0.318676	0.480392
	INDSZ	ENSG00000186340	Overall	high	0.292654	0.428378
	VDC27D	ENSG0000139722	Prog. Free	low	0.1478	0.281656
	VPS37B		Overall	low	0.199975	0.336625
TRUE	ACTN1	ENSG00000072110	Prog. Free	high	0.170661	0.313396
	ACTN1		Overall	high	0.007728	0.035478
	ADAM12	ENSG00000148848	Prog. Free	high	0.019179	0.062487
			Overall	high	0.081847	0.168704
	AEBP1	ENSG0000106624	Prog. Free	high	0.010829	0.046195
			Overall	high	0.057228	0.133697
	AXL	ENSG00000167601	Prog. Free	high	0.001496	0.015105
		14300000107001	Overall	high	3.64E-05	0.00184
	CD99	ENSG00000002586	Prog. Free	low	0.916833	0.941333
			Overall	low	0.083964	0.169607
	COL1A1	ENSG0000108821	Prog. Free	high	0.000303	0.004367
			Overall	high	0.000593	0.008638
	COL1A2	ENSG00000164692	Prog. Free	high	0.298023	0.456066
			Overall	high	0.566636	0.673297
	COL3A1	ENSG00000168542	Prog. Free	high	0.025985	0.07719
			Overall	high	0.010794	0.042917
	COL5A2	ENSG00000142156  ENSG00000142173	Prog. Free	low	0.74501	0.840433
	COLSAZ		Overall	low	0.99967	0.99967
	COL6A1		Prog. Free	high	0.011972	0.046195
	COLUAT		Overall	high	0.011048	0.042917
	COL6A2		Prog. Free	high	0.261528	0.426037
	COLUAZ		Overall	high	0.3235	0.447582
	CXCL12	ENSG00000107562	Prog. Free	high	0.000116	0.002927
			Overall	high	0.000648	0.008638
	CXCL8	ENSG00000169429	Prog. Free	low	0.839416	0.896701
			Overall	high	0.224913	0.366391
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	0/04.04	ENSG00000138061	Prog. Free	high	0.008641	0.041735
	CYP1B1		Overall	high	0.000684	0.008638
			Prog. Free	high	0.004827	0.030473
	DCN	ENSG00000011465	Overall	high	0.000247	0.008327
			Prog. Free	high	0.695686	0.807636
	DUSP1	ENSG00000120129	Overall	high	0.454061	0.583718
			Prog. Free	high	0.002676	0.019305
	FBLN1	ENSG00000077942	Overall	high	0.003734	0.026138
			Prog. Free	high	0.003748	0.025234
	GNB3	ENSG00000111664	Overall	high	0.005734	0.03048
Ī			Prog. Free	high	0.972219	0.97438
	GSTP1	ENSG00000084207	Overall	low	0.668091	0.749746
Ī			Prog. Free	high	0.008677	0.041735
	IGFBP4	ENSG00000141753	Overall	high	0.007089	0.034093
Ī			Prog. Free	high	0.126318	0.250159
	IL1R1	ENSG00000115594	Overall	high	0.256501	0.398563
f			Prog. Free	high	0.094893	0.19967
	ITGA5	ENSG00000161638	Overall	high	0.159113	0.29219
f	.==		Prog. Free	high	0.006717	0.036021
	ITGAX	ENSG00000140678	Overall	high	0.003123	0.024263
	17005		Prog. Free	low	0.436018	0.57192
	ITGB5	ENSG00000082781	Overall	high	0.539497	0.648681
Ī		5NS 000000110750	Prog. Free	high	0.018518	0.062345
	LAMA4	ENSG0000112769	Overall	high	0.104178	0.206314
	1.48452		Prog. Free	high	0.015472	0.053885
	LAMB2	ENSG00000172037	Overall	high	0.001354	0.013865
	LOXL2	ENSG00000134013	Prog. Free	high	0.808671	0.878235
L	LOXLZ	EN3G00000134013	Overall	low	0.933264	0.961309
	LRP1	ENSG00000123384	Prog. Free	high	0.006458	0.036021
	LIVET	LN300000123304	Overall	high	0.000434	0.008638
	LTBP2	ENSG00000119681	Prog. Free	high	9.03E-05	0.002927
	LIDEZ	111300000113081	Overall	high	0.011656	0.043603
	LUM	ENSG00000139329	Prog. Free	high	0.05158	0.118399
	20111	111300000133323	Overall	high	0.065084	0.139862
	МАРЗК8	ENSG00000107968	Prog. Free	high	0.000958	0.010755
	WIAI SKO		Overall	high	0.01617	0.055338
	MAP4K4	ENSG00000071054	Prog. Free	high	0.041155	0.098969
	101741 4144		Overall	high	0.31743	0.445284
	MFAP5	ENSG0000197614  ENSG00000157227	Prog. Free	high	0.000243	0.004094
	WII AI J		Overall	high	0.004269	0.026138
	MMP14		Prog. Free	high	6.93E-05	0.002927
	27		Overall	high	0.006691	0.033787
	MXRA5	ENSG00000101825	Prog. Free	high	0.034865	0.088035
	man		Overall	high	0.033819	0.103505
WAIC	MYL9	ENSG00000101335	Prog. Free	high	0.000146	0.00295
			Overall	high	1.56E-05	0.001572

NRP1	ENSG00000099250	Prog. Free	high	0.001888	0.015833
		Overall	high	0.002212	0.020312
PAPLN	ENSG0000100767	Prog. Free	high	0.034256	0.088035
		Overall	high	0.159113	0.29219
TEX14	ENSG00000121101	Prog. Free	high	0.237488	0.399771
		Overall	low	0.518581	0.631044
TOFRI	ENSG0000120708	Prog. Free	high	0.102621	0.208697
IGFBI		Overall	high	0.004299	0.026138
TGM2	ENSG0000198959	Prog. Free	high	0.058634	0.131601
		Overall	high	0.119621	0.227958
	ENSG0000137801	Prog. Free	high	0.39286	0.543545
14821		Overall	high	0.456572	0.583718
TNC	ENSG0000041982	Prog. Free	high	0.012806	0.046195
		Overall	high	0.004752	0.026663
TNS1	ENSG00000079308	Prog. Free	high	0.338737	0.491983
		Overall	high	0.757617	0.840872
TPM1	ENSG00000140416	Prog. Free	high	0.029263	0.0821
		Overall	high	0.001373	0.013865
TUBA1A	ENSG00000167552	Prog. Free	low	0.006776	0.036021
		Overall	low	0.042929	0.117163
TUBB6	ENSG00000176014	Prog. Free	low	0.186088	0.329735
		Overall	low	0.060071	0.133697
VCAN	ENSG00000038427	Prog. Free	high	0.042782	0.100487
		Overall	high	0.080757	0.168704
ZFP36L1	ENSG00000185650	Prog. Free	high	0.922693	0.941333
		Overall	high	0.24957	0.393852
	PAPLN TEX14 TGFBI TGM2 THBS1 TNC TNS1 TPM1 TUBA1A TUBA6 VCAN	PAPLN         ENSG00000100767           TEX14         ENSG00000121101           TGFBI         ENSG00000120708           TGM2         ENSG00000198959           THBS1         ENSG00000137801           TNC         ENSG00000041982           TNS1         ENSG00000079308           TPM1         ENSG00000140416           TUBA1A         ENSG00000167552           TUBB6         ENSG00000176014           VCAN         ENSG00000038427	NRP1	NRP1	NRP1