
Acknowledgements

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Introduction

To provide a comprehensive background for the following chapters that focus on the interaction of human mesenchymal stromal cells (hMSCs) with multiple myeloma (MM) cells, this

Aims

This project defines these aims:

- Characterise the interaction between myeloma cells and mesenchymal stromal cells
- Aim 2
- Aim 3

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Appendices

A Chapter 1 Supplementary

A.1 Figures & Tables

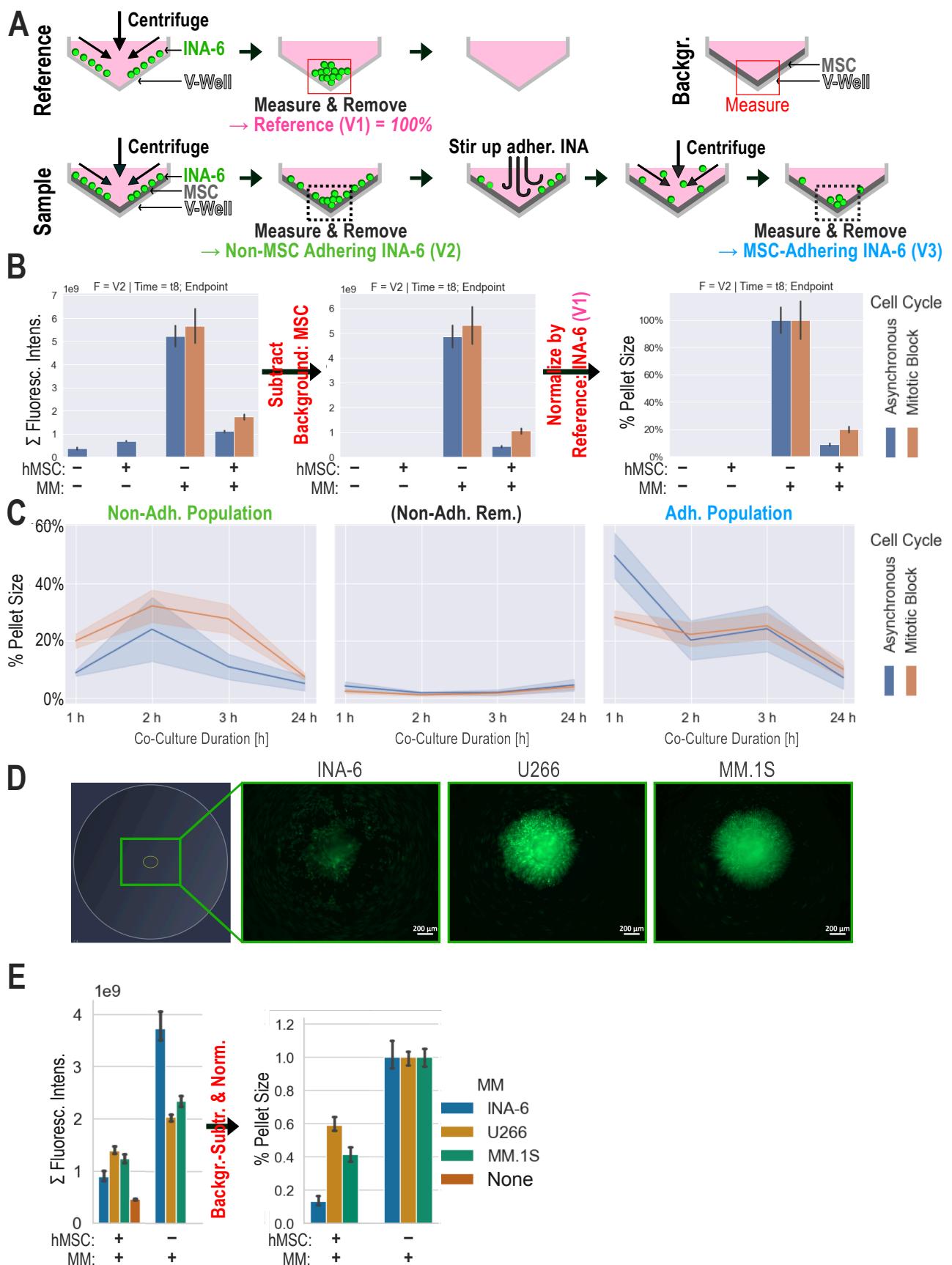
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Cell Type	Donor / Line	Donor Ages	Donor Sex	Date of negative Mycoplasma test	Experiment(s)	Figures
Myeloma Cell Line	INA-6	80	m	09.02.22	All	All
	U266			10.10.22	- Validation of V-Well Adhesion Assay	S1E
	MM1.S			24.02.22		
hMSC	1639	49	m	not tested	- Validation of V-Well Adhesion Assay	S1E
	1571	72	m		- Time-lapse: INA-6 on dispersed hMSC	1D; 2[A-E]
	1573	47	m	not tested	- Saturation of hMSCs	1[A-B]
	1578	82	m	not tested		
	1842	63	m	not tested	- INA-6 Viability dependent on time and hMSC adhesion surface (INA not washed off)	1E right
	1843	60	m			
	1537	77	f	not tested		
	1794	82	m	not tested	- INA-6 Viability dependent on time and hMSC adhesion surface (INA washed off)	1[C, E left]
	1779	61	m			
	1849	69	m	not tested	- Time-lapse: INA-6 on dispersed hMSC	1D; 2[A-E]
	1854	80	f	not tested		
	1605	71	f	not tested	- Time-lapse: INA-6 on confluent hMSC	2[G-I]
	1650	57	m			
	1859	64	f	not tested	- Time-lapse: INA-6 on confluent hMSC	2[G-I]
	1863	79	f	not tested		
	1861	52	f	not tested		
	1818	81	f	not tested	- Cell Cycle Profiling after V-well assay	3C
	1824	82	f	not tested	(Donor measured twice, different passages) - V-well adhesion assay of mitotically blocked INA-6 followed by Cell Cycle Profiling after V-well assay	3[B,C]

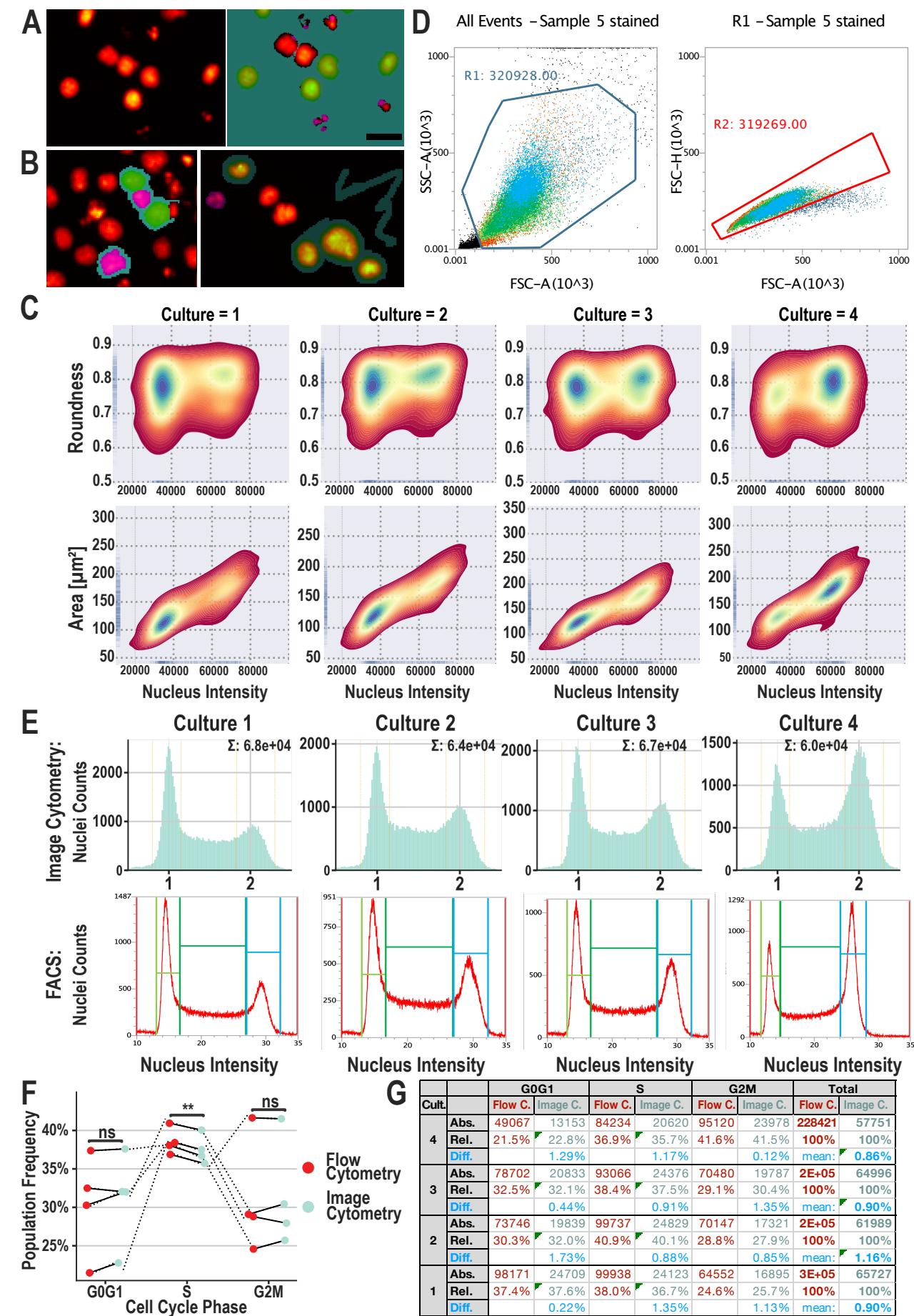
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Appendix A Table 1 – *Continued from previous page*

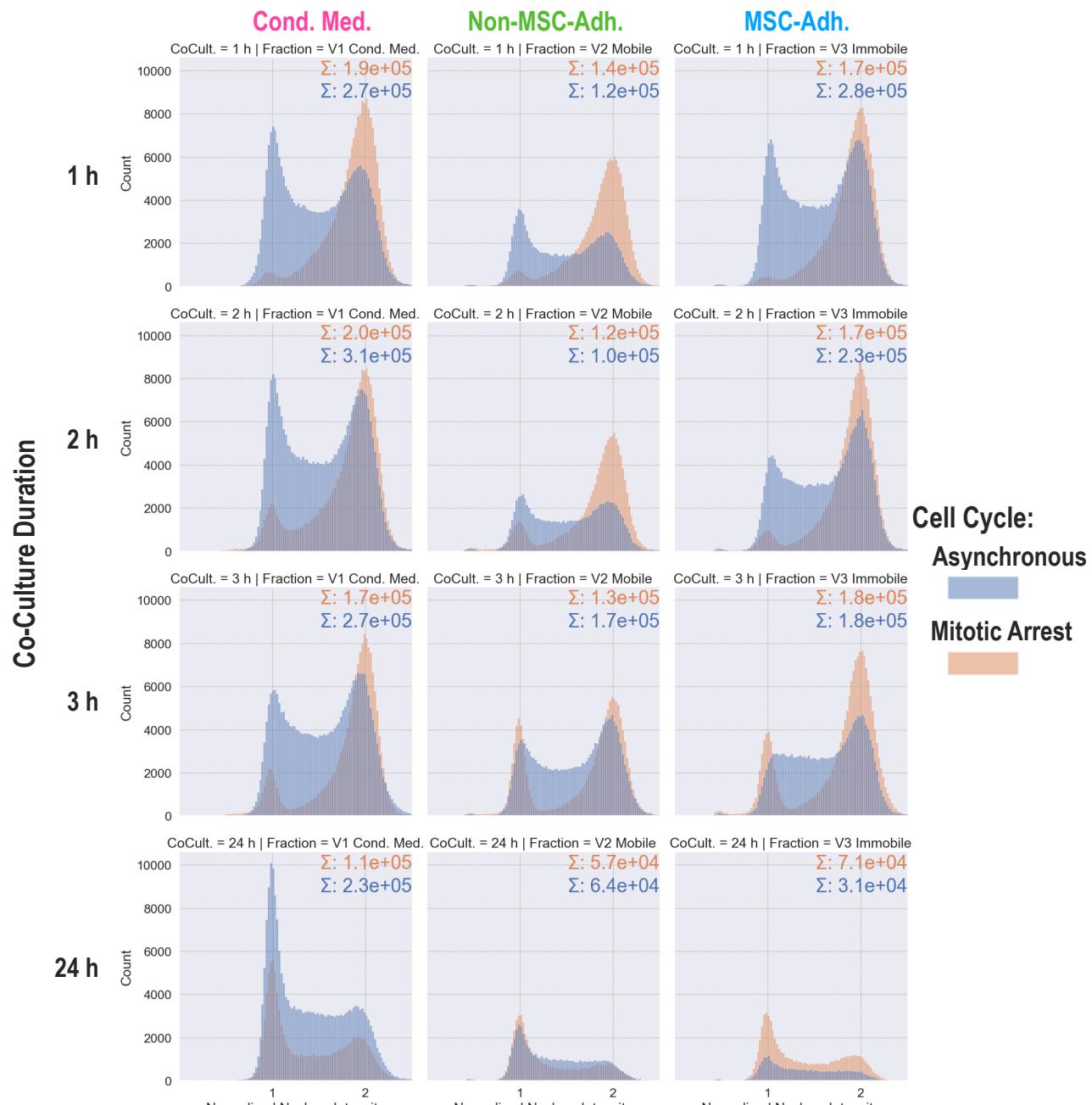
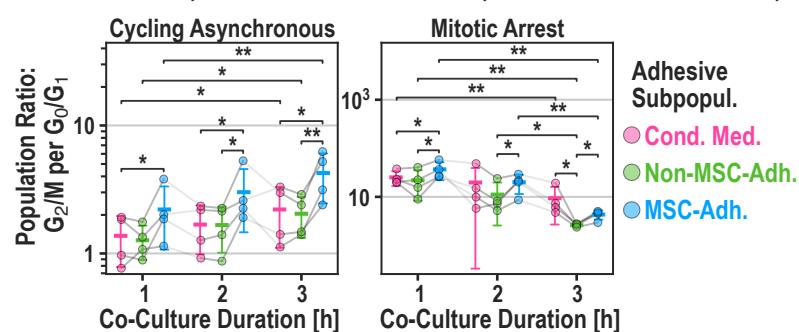
Cell Type	Donor / Line	Donor Ages	Donor Sex	Date of negative Mycoplasma test	Experiment(s)	Figures
	1827	56	m	not tested	- V-well adhesion assay of mitotically blocked INA-6 followed by Cell Cycle Profiling after V-well assay	3[B,C]
	1501	59	m	not tested	- INA-6 AI-assisted count during WPSC (INA-6 stained with celltracker green)	4B
	1643	75	f	not tested		
	1718	67	m	not tested		
	1720	58	m	not tested		
	1653	65	m	not tested		
	1591	78	m	not tested	- WPSC (MACS) followed by RNAseq, Metascape analysis, and qPCR validation - WPSC (Wash) followed by qPCR-Validation and Luminescent Viability assays	4[A,C,D,E]; 5[A-C] 4[C-E], 4F
	1654	74	m	not tested	- WPSC (MACS) followed by RNAseq, Metascape analysis, and qPCR validation - WPSC (Wash) followed by qPCR-Validation and Luminescent Viability assays	4[A,C,D,E]; 5[A-C] 4[C-E], 4F
	1655	78	f	not tested	- WPSC (MACS) followed by RNAseq, Metascape analysis, and qPCR validation	4[A,C,D,E]; 5[A-C]
	1668	80	f	not tested		
	1670	66	f	not tested		
	1701	81	m	not tested	- WPSC (Wash) followed by qPCR-Validation and Luminescent Viability assays	4[C-E], 4F
	1702	79	f	not tested		
	1600	77	m	not tested		
	1681	56	m	not tested	- WPSC (Wash) followed by Luminescent Viability assays	4F
	1672	65	m	not tested	- WPSC (Wash) followed by qPCR-Validation	4[C-E]



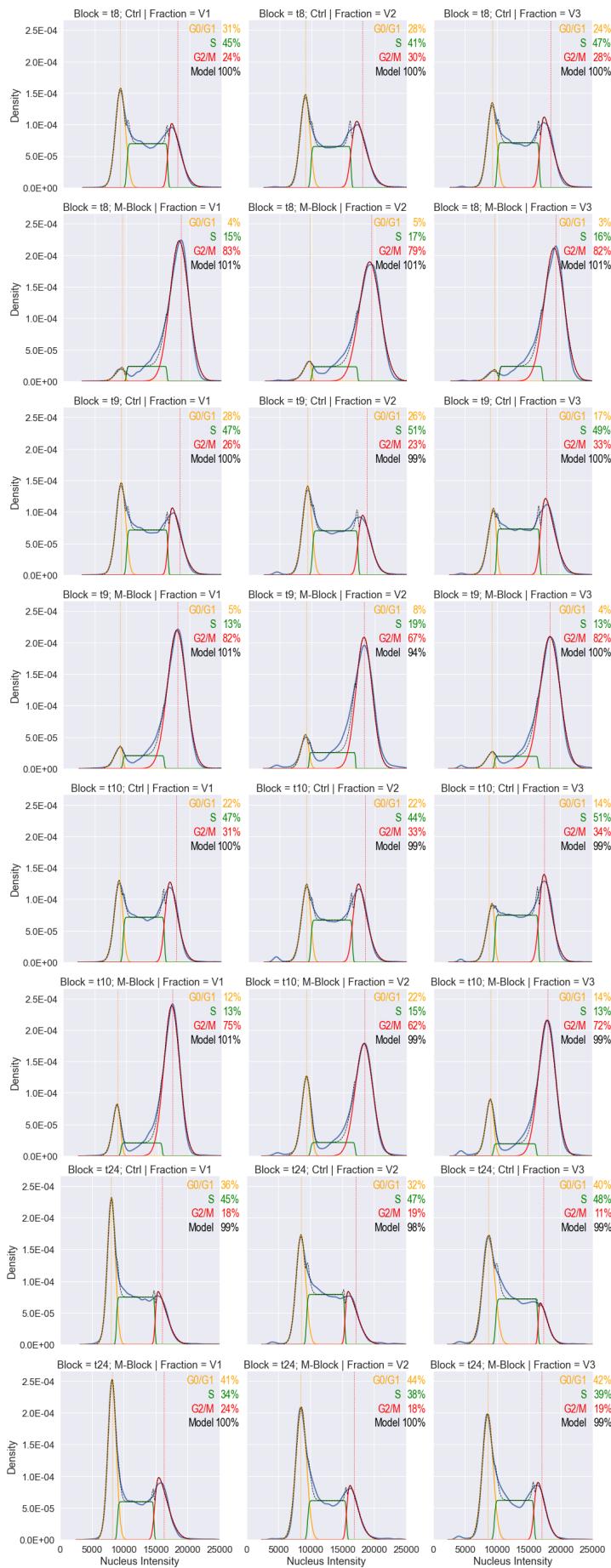
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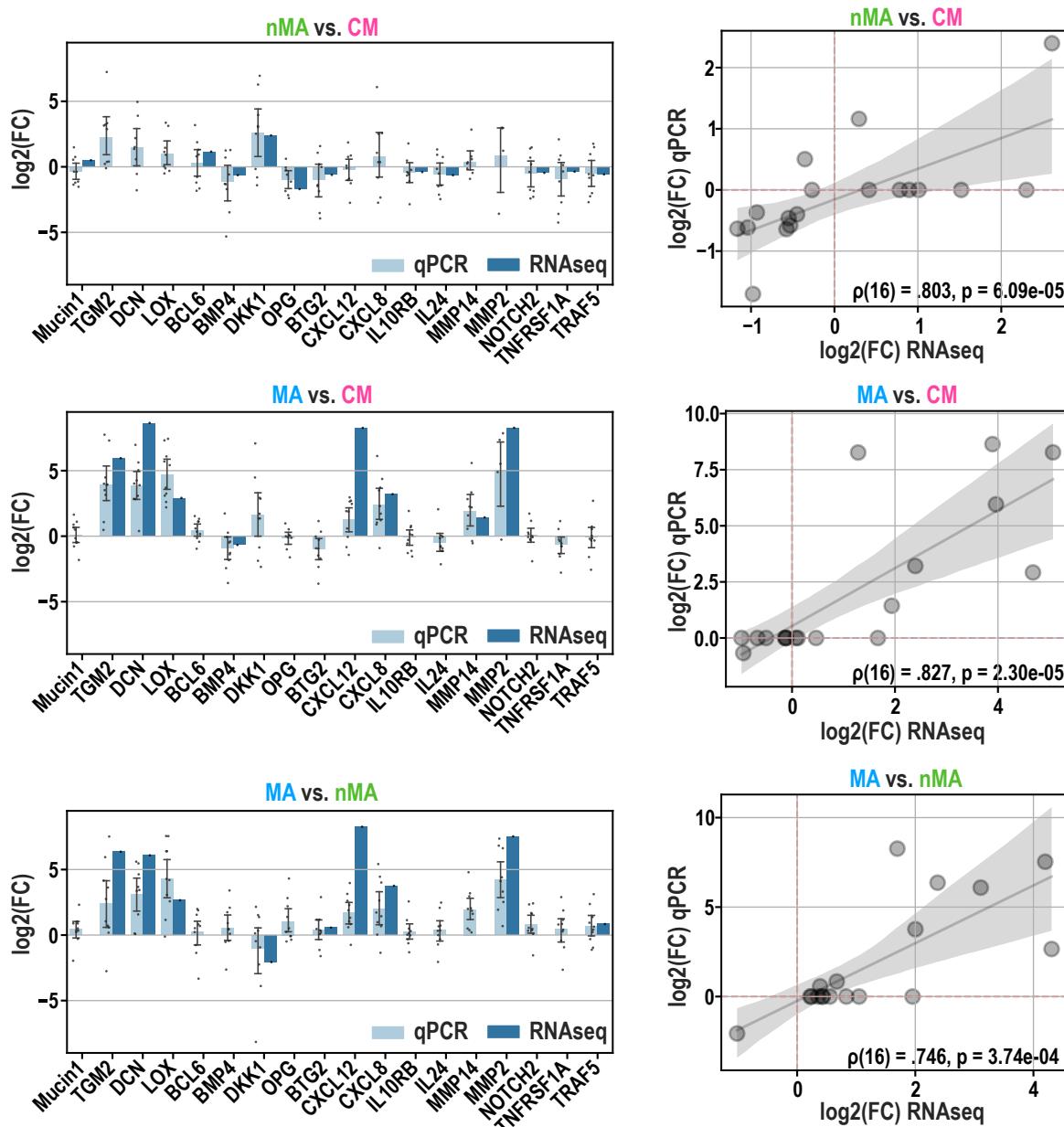
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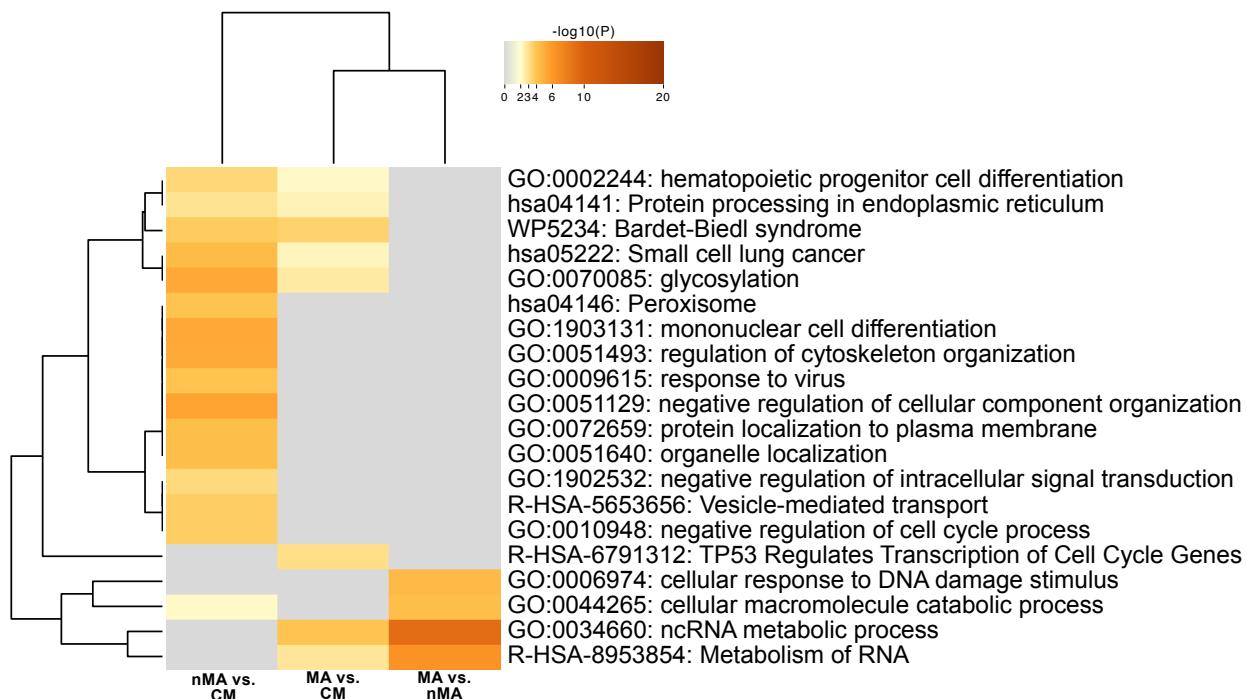
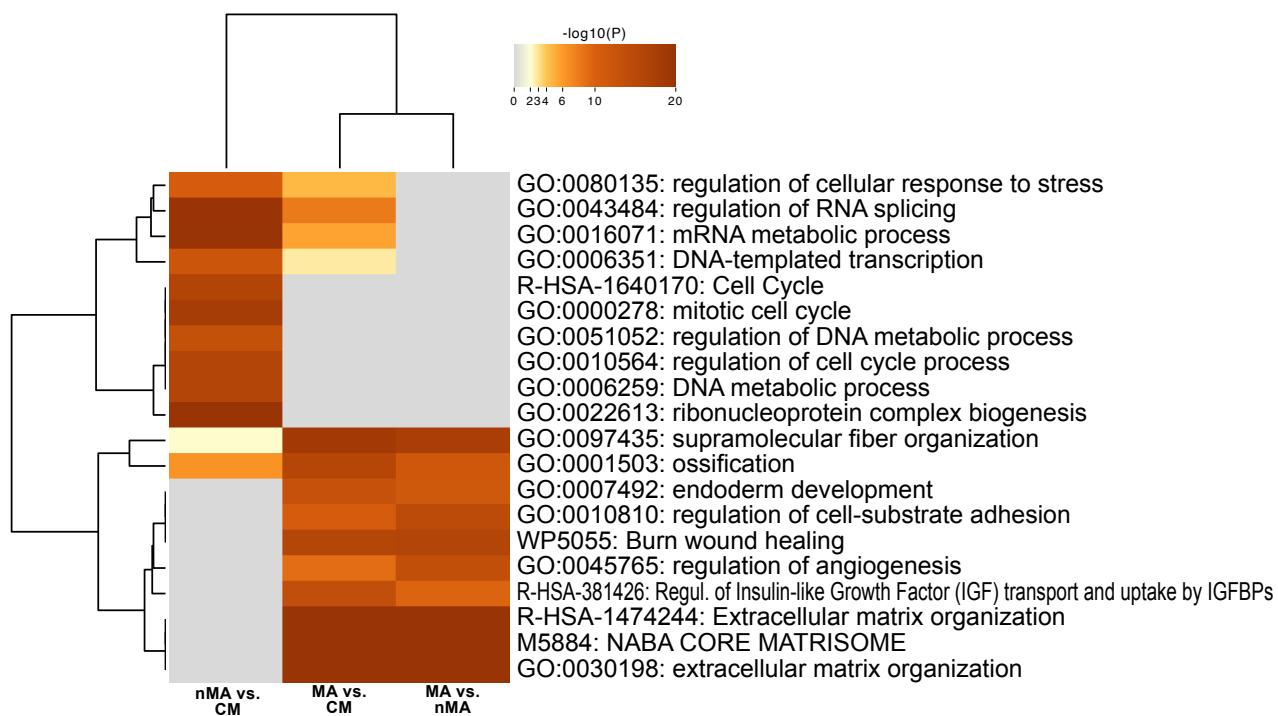
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Regulation during disease progression	Gene	Ensemble ID	Progression Free / Overall Survival	Better Prognosis with high/low expression	Association of expression with survival	
					[p-unc]	[p-adj]
Not downregulated or overall low expression	CCDC80	ENSG00000091986	Prog. Free	high	2.04E-03	1.58E-02
	CCN2	ENSG00000118523	Overall	high	2.89E-03	2.43E-02
Continuously downregulated (PC > MGUS > sMM > MM > MMR)	ACTN1	ENSG00000072110	Overall	high	7.73E-03	3.55E-02
	AEBP1	ENSG00000106624	Prog. Free	high	1.08E-02	4.62E-02

A.2 Materials & Methods

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