Table S1. List of miRNAs that were significantly dysregulated in organs and body fluids of mice exposed to MCS. The values indicate the MCS/Sham ratio, as assessed by microarray and volcano-plot analyses.

miRNA	Lung	Liver	Heart	Kidney	Spleen	Urinary bladder	Skeletal muscle	Colon	Stomach	Brain	Blood serum	BALF	Urine
miR-let-7b	0.42												
miR-let-7c		3.16											
miR-let-7d		2.05											
miR-let-7e	0.29		0.47		0.34								
miR-let-7f-1	0.47												
miR-let-7f-2	0.41												
miR-1a-1	0.20	0.08		0.13	0.34				3.66		3.02		
miR-7-3p		2.25											
miR-7a		2.68											
miR-7a-2							6.42				1.54		
miR-7b					0.28		2.35				0.51		
miR-9-3p	0.41		0.48										
miR-9-5p	0.37												
miR-10a		0.36		0.30	0.21		2.16				0.54		0.60
miR-10b	0.27						3.55					1.50	
miR-15a					2.71								
miR-16							0.41						
miR-16-2							2.77						
miR-18a	0.45	0.15											
miR-18b	0.30												
miR-19b	0.30						3.30						
miR-19b-1	0.44												
miR-21	0.46												
miR-21a	0.43	0.16											
miR-22		0.09			0.21				0.45		0.41		
miR-23a-3p	0.35						2.43						

miR-23a-5p	0.13	0.28		0.24			0.12				0.51		
miR-23b	0.38						2.22						
miR-24		0.19		0.24	0.18		0.43						0.40
miR-25	0.46						0.34				0.63		
miR-26a-1					2.45								
miR-26a-2		0.21					0.10						
miR-26b							0.32						
miR-27a	0.49											1.60	
miR-27b		0.23											
miR-28	0.29												
miR-28a					0.39								1.60
miR-28b	0.37												
miR-29a	0.49												
miR-29b	0.33												
miR-29b-1	0.46								0.31				
miR-29c	0.35												
miR-30a	0.27												
miR-30b-3p	0.21			2.07			2.97						0.46
miR-30b-5p	0.31								0.46				
miR-30c-1-3p							2.68				0.66		
miR-30c-2-3p		5.61											
miR-30c-5p		3.47					2.78				1.72		
miR-30e	0.24						0.20					1.56	
miR-31		2.55											
miR-32							5.18				2.14		
miR-33a	0.43		3.04									1.89	
miR-34b	0.50	0.40											
miR-34c							3.39				1.93		
miR-92a	0.28						0.29						
miR-92a-2	0.06				0.24		0.08				0.66		
miR-93	0.57												
miR-96		2.07											
miR-98	0.27	4.68											

miR-99b-3p	0.28						4.72				0.54		
miR-99b-5p	0.29				0.35		3.45						
miR-101b							4.03						
miR-106b					0.35								
miR-107	0.44								2.36				
miR-122		4.43					3.53						
miR-125a-3p		0.19											
miR-125a-5p							0.31						
miR-125b-1	0.40	7.42	2.12	6.95	5.60		5.04				0.60		
miR-125b-2					6.66		6.48						
miR-126		3.97				0.41					0.35		0.59
miR-129	4.44												
miR-129-5p				3.12									1.74
miR-129-1-3p		9.16		5.12									
miR-129-2	2.87												
miR-130a		4.35		4.35									
miR-130b							4.16				1.73		
miR-132-3p	0.41												
miR-132-5p	0.27												
miR-133b	0.33				0.47						0.49		
miR-135a-5p	0.41	7.83		9.98	0.37								
miR-135b	0.37	2.75					0.35				1.75		
miR-136	0.29												
miR-137	0.29												0.49
miR-138-1	0.37	22.35											
miR-138-2									6.87				
miR-139	0.41						0.29						
miR-141		0.47											
miR-142	0.30												
miR-144	0.47						3.89				0.60		
miR-146a	0.49	8.21											
miR-147b	0.12	0.15		0.40									
miR-148b-3p		2.88		7.39	7.33						1.96		

miR-149-3p		0.14			0.27								
miR-150					2.40								
miR-151						2.13							
miR-152	2.08										1.51		
miR-153	2.64												
miR-154		4.26		4.24									
miR-155		0.08		0.12	0.11						2.67		
miR-181	3.02												
miR-181a	2.10								2.36				
miR-181b							0.33				1.87		
miR-181c							2.54						
miR-181d	2.27				0.46								
miR-182							3.77				0.42		
miR-183	0.06	0.31	3.33		0.38		2.96				0.48	0.47	0.63
miR-184	0.22						0.32						
miR-185-3p	0.29				0.27		0.38						
miR-185-5p	0.13			3.21									
miR-186	0.12						0.40						
miR-187-5p		0.20		0.06	0.05				2.32		3.33		
miR-188-3p							2.83						
miR-188-5p							2.86						
miR-190a								0.31					
miR-191-3p	0.44												
miR-191-5p	0.30												
miR-192		3.06											
miR-193a-3p	0.42												
miR-193a-5p	0.26												
miR-193b	0.21			2.19	0.30								1.62
miR-194-3p		0.18			0.20								
miR-195					0.34								
miR-196a-3p		8.25		6.47	8.69								
miR-196a-1-3p	0.49	4.46		4.23							0.65		
miR-196b	0.42										1.53	1.54	

miR-199a	0.45												
miR-199b	0.44						0.40				1.89	1.55	
miR-200b					2.03								
miR-200c	2.24			2.48	5.09								
miR-201	0.47												1.82
miR-202-3p	0.13												
miR-202-5p	0.34												
miR-204	5.27	7.19	3.41	4.70	2.77		5.00					0.48	
miR-205-5p		0.47											
miR-206	5.52	7.51		0.11			4.96		3.27		0.55	0.36	
miR-207					2.21				0.40		0.46		
miR-208b				4.12									
miR-211	0.33												
miR-214	0.22						0.25						
miR-215	0.47	8.08		6.96									
miR-216a	0.41												
miR-216b	0.38												
miR-217	0.30	8.77		5.53	5.77						1.66		
miR-218	0.46												
miR-218-1	0.40												
miR-219	0.50												
miR-223-5p			0.40		0.46								
miR-290											0.51		
miR-291a	0.43	0.39											
miR-291b							2.97						
miR-292	0.41						0.28						
miR-293		2.32		2.70	4.20	2.35	2.91						
miR-294											0.54		
miR-295	0.31						0.38						
miR-296							0.41				0.62		
miR-297a		0.22		0.23			3.90		3.12		2.21		
miR-297c	0.29						3.39				1.92		
miR-298-3p	0.24	6.42		3.07									

miR-298-5p				0.42									
miR-299a				3.11	0.40								
miR-300	0.03						0.08						
miR-301a					4.82		5.88				1.63		
miR-301b				3.47									
miR-302a	0.16					2.64	0.21						
miR-302b	0.11	0.12			0.11		0.19						
miR-302c		2.05											
miR-307		3.11											
miR-320							7.82				1.53		
miR-320a		0.32	0.36										
miR-322	0.46						2.51						
miR-323a	0.33						0.31						
miR-324		3.23					4.76						
miR-325							0.13				0.49		
miR-328	0.51	0.33											
miR-329				0.49									
miR-330					2.84								
miR-331-3p		0.47											
miR-331-5p		0.21		0.13	0.10								
miR-335-3p		4.59					0.43						
miR-335-5p		13.42		17.40	17.58								
miR-337							0.22						
miR-338	0.34				0.42								
miR-339											0.37	0.60	
miR-340-3p	0.30						5.13				2.11		
miR-340-5p	2.17						2.27						
miR-341-3p		0.16											
miR-344							2.00				0.37		
miR-344d-5p		3.23											
miR-344d-3p		3.10											
miR-344d-1							2.39						
miR-344d-3		0.31		0.38	0.45								

miR-344e		0.43			0.39								
miR-344g			2.01										
miR-345		0.43											
miR-346-3p	0.23	0.19		0.40	0.17							0.50	
miR-346-5p	0.48			0.42			0.27						
miR-350	0.22												
miR-351-3p	0.40					0.47							
miR-351-5p	0.09	0.17					0.22						
miR-361					0.33								
miR-363	0.25	0.20				0.36	0.38		0.43			0.49	
miR-365a	0.43											0.61	
miR-367	0.50						0.34						
miR-369		4.90		4.22									
miR-370		0.37		0.39	0.28								
miR-374b		3.51											
miR-376b	0.50						0.42					1.52	
miR-377-3p		0.07		3.74									
miR-378a-3p	0.24												
miR-378a-5p	0.28						3.17						
miR-378b	0.20		0.39				0.40						
miR-379	0.44						2.95						
miR-380-3p	0.33												
miR-380-5p	0.13												
miR-381												0.65	0.60
miR-382		8.98		5.60									1.71
miR-384						0.49							1.59
miR-411	0.49		0.47			0.24			0.27		0.34	0.61	0.65
miR-421				4.63									
miR-423	0.07						6.09				0.56	0.66	
miR-425		0.13					0.06						
miR-429	0.33											1.64	
miR-431-3p	0.44												
miR-431-5p	0.42						2.62						

miR-433	0.14	0.12	0.41	0.44	0.26		0.18					0.37	
miR-434	0.36												
miR-448	0.37						2.08						
miR-449c	0.44												
miR-450a		0.42			0.27						0.47		0.60
miR-450a-1	0.27												
miR-450b-3p		0.16											
miR-450b-5p							2.18						
miR-451a	0.29	5.60		3.81			2.85				0.51		
miR-452					5.59								
miR-453	0.48												
miR-455							2.22						
miR-463	0.36											1.67	
miR-465a	0.28						0.30						
miR-465b		0.34						2.66					
miR-465c		7.43					0.28				0.65		
miR-466a	0.28		0.36				4.95	0.41	0.32		2.11		
miR-466b							0.12				1.90		
miR-466c	0.29		0.36				0.13				2.98	1.83	
miR-466d		0.26					3.30				1.81		
miR-466e							4.98				1.51		
miR-466f	0.30	0.16	0.28	0.44			0.21				2.15		0.59
miR-466h-3p	0.28						0.30				1.92		
miR-466h-5p							0.22				1.55		
miR-466i-3p		0.27	0.34	0.43			0.19		3.08		2.39		
miR-466i-5p	0.28		0.13		0.44		0.14				3.07		
miR-466j	0.44		0.48	0.39			0.27		2.77		1.76	2.03	
miR-466k							4.37				1.76		
miR-466l		0.40											
miR-466m		0.49	0.30	0.47	0.40		0.12		3.00		7.09		
miR-466n	0.15	0.12											
miR-466o		0.22		0.23	0.49								
miR-466q			0.47	0.46			0.16				1.86		0.52

miR-467a		0.28	2.58	0.21			3.95		5.33		2.15		
miR-467b		0.16		0.23			4.10		4.31		2.17		
miR-467c		0.13		0.17			4.86		4.44		1.79		
miR-467d	0.32						4.43						
miR-467e		0.27											
miR-467f							3.45				1.96		
miR-467g		0.28		0.32			3.75	0.46	2.50		2.27		
miR-467h			5.02		2.37		3.58		2.06		2.65		
miR-470	0.29			0.34			0.34						
miR-471		0.17		0.42	0.45						0.42		0.50
miR-484	0.39						0.35				0.58		
miR-485							0.32						
miR-486	0.31												
miR-488		7.54							2.85				
miR-489	0.34												
miR-490-3p	0.35			0.41									
miR-490-5p	0.33	0.21		0.25	0.26								
miR-491-3p	0.18	0.39	0.19		0.27	0.48						0.62	0.50
miR-491-5p	0.43												
miR-493							0.24						
miR-494		10.78		14.76	18.02		3.99				1.82		
miR-495-3p	0.24	3.48					3.40						
miR-495-5p							0.20						
miR-496							0.25				1.58		
miR-496a		6.28											
miR-497							3.35						
miR-499a	0.48										0.65		0.61
miR-500									2.27				
miR-501							0.32				0.55		
miR-503							4.81				0.62		
miR-504				0.40									1.54
miR-505					0.34		0.16						
miR-509				0.31									

miR-511-3p				4.55			3.17				0.66		
miR-511-5p		4.26											
miR-532	0.42											1.67	
miR-539		2.93					3.90				1.84		
miR-540	0.36											1.62	
miR-541							4.48				0.49		
miR-542-3p	0.07						6.67						
miR-542-5p	0.08	0.25		4.35		2.27	2.86				0.61		0.62
miR-543	0.35						0.15						
miR-544	0.29				9.02		0.10						
miR-551b	0.47						2.12						
miR-574	2.91	3.74	3.37	2.20			6.01		2.92		1.91		
miR-582	0.40												
miR-590	0.30						0.36						
miR-592	0.02	2.37					0.09						
miR-598	0.42												
miR-615							0.23						
miR-652				0.39			3.72						
miR-653		2.43											
miR-654		5.71		3.42	6.03								
miR-664				5.84	5.65		2.96				0.66		
miR-665	0.12						4.55				0.61	0.69	
miR-667							0.16						
miR-668							0.23						
miR-668l	0.46												
miR-669a				0.31			4.23		3.25		2.14		
miR-669a-3				0.24			6.40		4.07		2.10		
miR-669b	0.46						3.13				1.63		
miR-669c			2.57	0.29	2.27		4.59		2.86		2.59		0.44
miR-669d-3p		2.53					3.70						
miR-669d-5p		4.00	2.94				4.17						
miR-669e		4.23	4.71		2.01		2.52				2.23		
miR-669f			2.13	0.25			4.40		3.75		2.58		

miR-669g	0.29												
miR-669h							3.32				0.39		
miR-669k							6.67						
miR-669m							3.52				1.58		
miR-669n							5.00						
miR-669p			2.74	0.29			4.80		4.05		2.08		
miR-670	0.20												
miR-673	0.33			0.34	0.27								
miR-675		4.65			3.01		2.70				0.61		0.62
miR-676-3p	0.45												
miR-676-5p	0.35						0.47						
miR-677	0.08											0.54	
miR-678	0.21						0.25						
miR-679-3p	0.30	3.12											
miR-679-5p		0.18		0.38			0.42						
miR-686							0.31						
miR-688		3.46		2.24							0.47		
miR-690		0.31		0.25	0.12		2.33				0.31		
miR-691	0.13						0.18						
miR-692	0.34											1.52	
miR-694	0.43												
miR-695	0.10			0.28									
miR-696					0.34								
miR-697	0.22											0.65	
miR-700							0.17						
miR-701-3p							0.28						
miR-701-5p	3.83	8.66		4.38	2.50		3.55					0.37	
miR-702-5p		0.24			0.22								
miR-703	0.38												
miR-704			2.03										
miR-705	0.13	0.08		0.19	0.30		0.25						
miR-706	0.35												
miR-707	0.33												

miR-708	0.44												
miR-709							7.49				0.64		
miR-710	3.70	6.67		7.14	8.33								
miR-711	0.08						5.87				0.60		
miR-712						0.41	0.26						
miR-713	0.47												
miR-714		0.18											
miR-717					3.26								
miR-718	0.36												
miR-719		0.30	3.63	0.26	0.36		4.23				0.65		0.41
miR-721				0.30									
miR-742-3p		0.21			0.47								
miR-743a		4.98		3.23	4.36								
miR-758	0.32										0.42		
miR-759					2.94								
miR-761	0.32	0.45					3.46				0.51		
miR-762	0.23	0.19					2.29						
miR-764-3p	2.63												
miR-770	0.30	0.20			0.19		0.34						
miR-802	0.27	0.14		0.13	0.13								
miR-804		0.31							0.19		0.26		
miR-871							2.36						
miR-872		2.71							0.47				
miR-874	5.23	3.36		4.63			3.96				0.63	0.56	
miR-875	3.27		2.85				4.98				0.53		
miR-876							0.29				0.63		
miR-877	0.11						7.11				0.59		
miR-878		0.44											
miR-879	0.34						0.33						
miR-880	0.45						2.38	0.25					
miR-881	0.35	2.44		3.91			0.14						
miR-882							0.19						
miR-883a	0.09	5.52					0.21						

miR-883b	0.08	4.43	0.43		0.48				0.39				
miR-1186b	1.97												
miR-1187							3.27				1.62		
miR-1190	0.42												
miR-1192		21.05		18.05									
miR-1193	0.29	0.13		0.22									
miR-1194	0.47												
miR-1198		3.10		2.82	2.32						0.48		
miR-1199							3.52						
miR-1224-3p				0.25	0.30		0.23		0.36				
miR-1224-5p				4.02	0.22								0.59
miR-1251	0.39				0.45	0.49	0.17					2.03	
miR-1264	0.42												
miR-1298	0.47										0.59		
miR-1306		0.48					3.02						

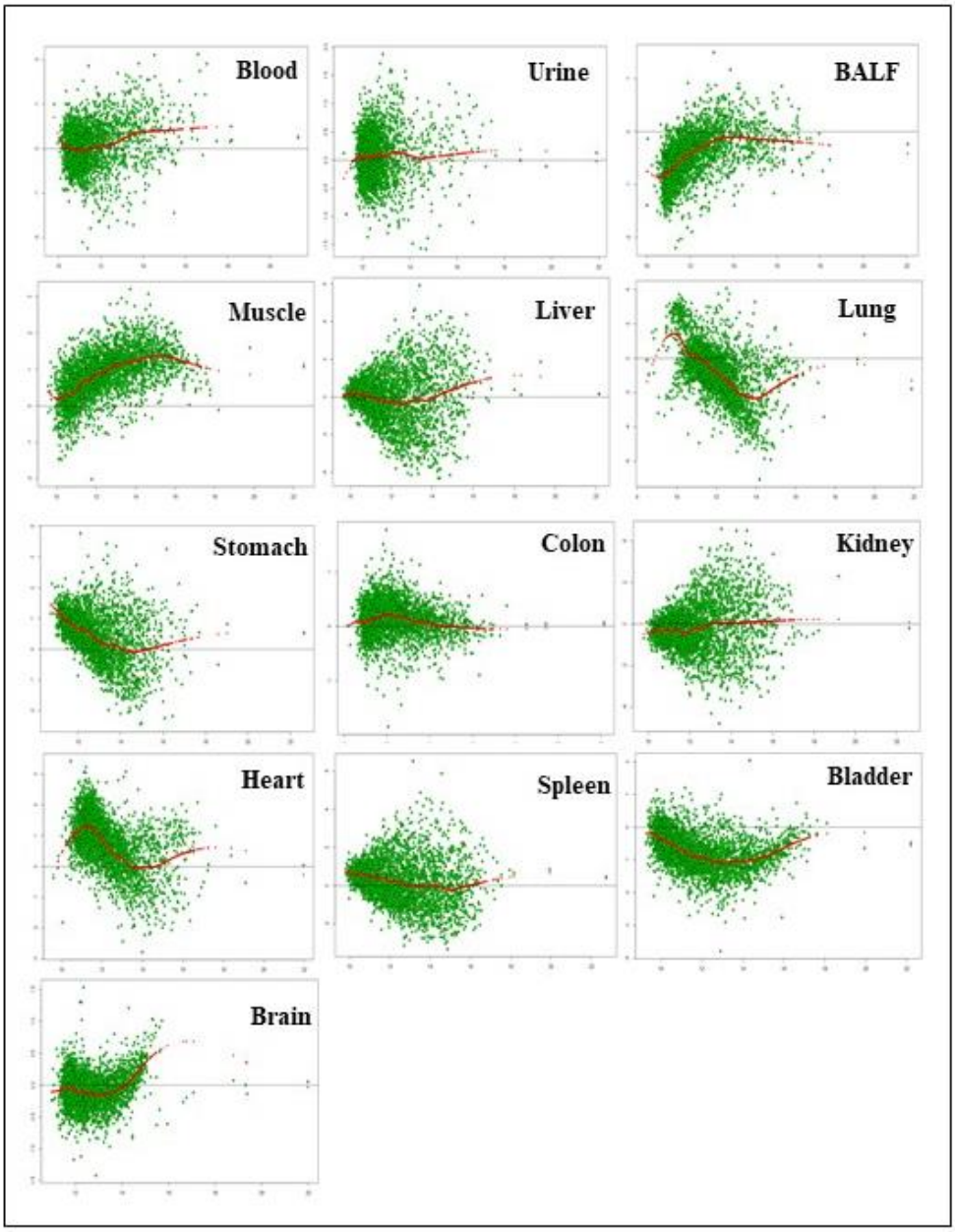

Fig. 1S. MA plots showing the effect of MCS on the expression profiles of 1135 miRNAs in the 10 mouse organs and 3 body fluids examined. The Y axis (M) reports the MCS/Sham log transformed data (log-intensity ratios). The X axis (A) reports the average MCS/Sham (amplitude of combined intensities) of log transformed data (log-intensity averages). Each green dot represents the expression intensity of each miRNA according to M and A. Red lines indicate the medians of data distribution according to miRNA expression levels.

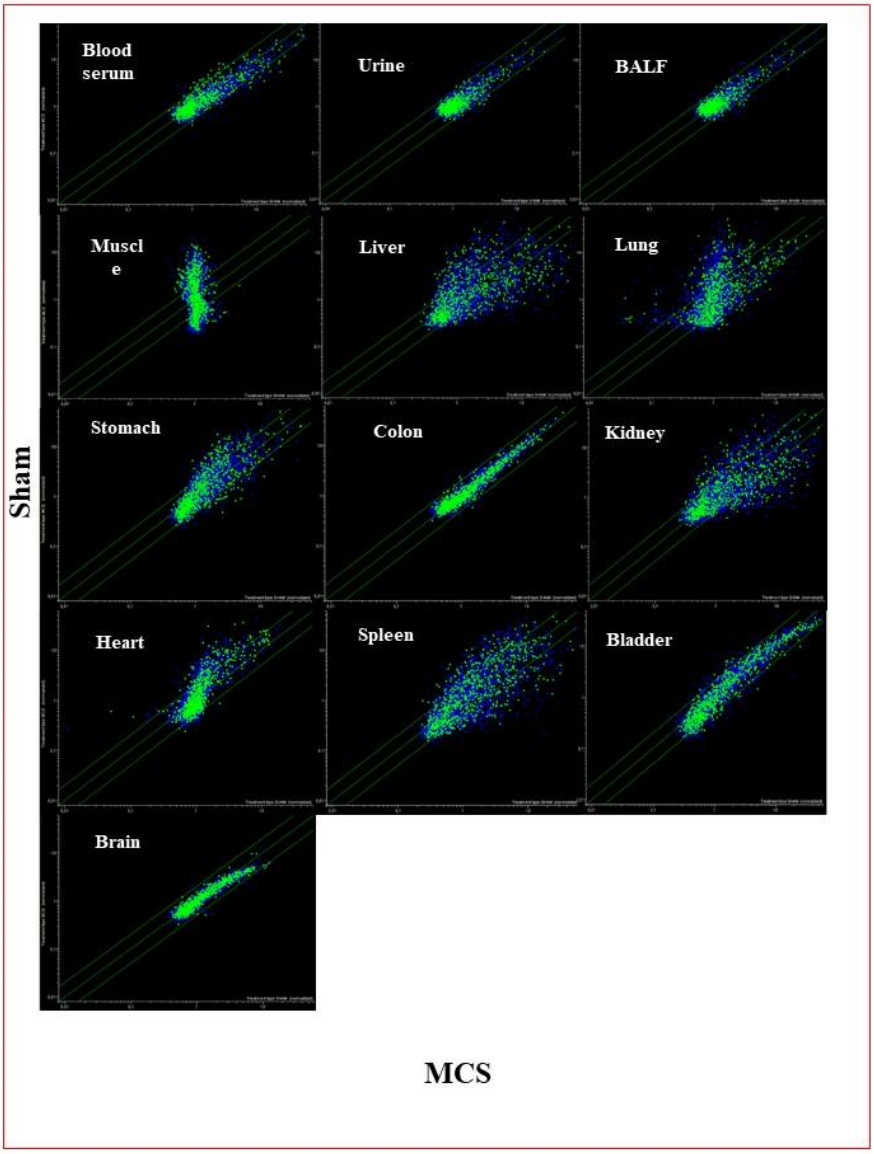

Fig. 2S. Scatter-plot analyses comparing, for each one of the 10 examined organs and 3 body fluids, the miRNA expression in sham-exposed mice (Y axis) and MCS-exposed mice (X axis). The blue dots refer to 1928 human miRNAs (hsa or *Homo sapiens*), whereas the green dots refer to 1135 mouse miRNAs (mmu or *Mus musculus*). Dots falling outside the diagonal two-fold variation intervals (diagonal green lines) correspond to miRNAs dysregulated more than two-fold in their expression by MCS. Upregulated miRNAs are located in the lower-right area and downregulated miRNAs are in the upper-left area.

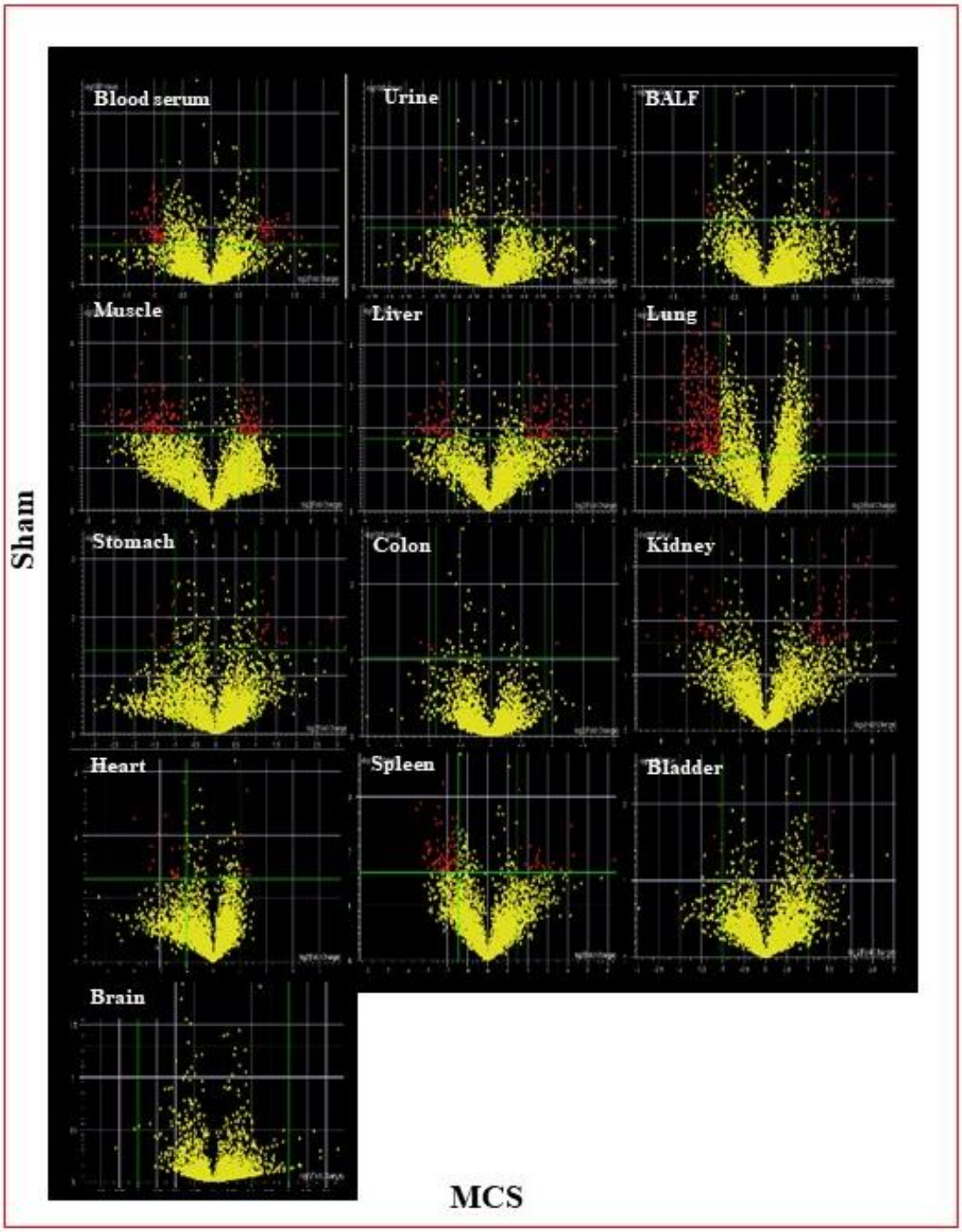

Fig. 3S. Volcano-plot analyses showing modulation by MCS of 1135 miRNAs in 10 organs and 3 body fluids of mice. Each dot corresponds to a miRNA. The dots are positioned in the graphs depending on the fold-variation (X axis, MCS/Sham ratio) and on the statistical significance calculated by ANOVA (Y axis). The red dots refer to those miRNAs that were dysregulated by MCS more than 2-fold and to a statistically significant extent ($P < 0.05$).