

Supplementary tables to

Compromised blood-brain barrier junctions enhance melanoma cell intercalation and extravasation

Supplementary Table S1, calculation of data shown in Supplementary Figure S1A

A	1st value after start of treatment					3 hours after start of treatment				
	ohm/cm ²					ohm/cm ²				
Sample	Value 1	Value 2	Value 3	mean	STDEV	Value 1	Value 2	Value 3	mean	STDEV
Empty filter	5,54	6,31	7,27	6,4	0,87	5,47	6,27	7,16	6,3	0,85
pMBMECs, no treatment	26,74	24,1	27,7	26,2	1,86	25,07	22,87	26,38	24,8	1,77
pMBMECs +GM6001 (20 µM)	22,16	23,24	22,63	22,7	0,54	20,85	21,85	21,97	21,6	0,61
pMBMECs +DMSO (1:1000)	19,57	22,46	21,17	21,1	1,45	18,67	21,46	20,03	20,1	1,40

B	1st value after start of treatment *)					3 hours after start of treatment *)				
	ohm/cm ²					ohm/cm ²				
Sample	Value 1	Value 2	Value 3	mean	STDEV	Value 1	Value 2	Value 3	mean	STDEV
pMBMECs, no treatment	20,4	17,7	21,3	19,8	1,86	18,8	16,6	20,1	18,5	1,77
pMBMECs +GM6001 (20 µM)	15,8	16,9	16,3	16,3	0,54	14,6	15,6	15,7	15,3	0,61
pMBMECs +DMSO (1:1000)	13,2	16,1	14,8	14,7	1,45	12,4	15,2	13,7	13,8	1,40

*) mean of empty filter values subtracted

C	1st value after start of treatment					3 hours after start of treatment				
	set to 100 %					relative to 1st value				
Sample	Value 1	Value 2	Value 3			Value 1	Value 2	Value 3	mean	STDEV
pMBMECs, no treatment	100	100	100			92,16	93,47	94,15	93,3	1,01
pMBMECs +GM6001 (20 µM)	100	100	100			92,17	92,19	96,39	93,6	2,43
pMBMECs +DMSO (1:1000)	100	100	100			93,74	94,24	92,79	93,6	0,74

**) mean of pMBMECs, no treatment, 3 hours after start of treatment set to 100 %.

***) TEER values are expressed relative to the mean of pMBMECs, no treatment, after 3 hours set to 100 %.

3 hours after start of treatment					
data shwon in Fig 3A					
Value 1	Value 2	Value 3	mean	STDEV	
**)	98,82	100,23	100,96	100,0	1,09
***)	98,82	98,85	103,35	100,3	2,61
***)	100,51	101,05	99,49	100,3	0,79

Supplementary Table S1. **A** lists the initial absolute TEER values. **B** lists the absolute TEER values subtracted by mean TEER values of the empty filters. **C** shows the calculation of the data shown in Supplementary Figure 1A.

Supplementary Table S2, calculation of data shown in Supplementary Figure S1B.

A

time (h)	Empty filler (Experiment A)					Empty filler (Experiment B)					pMBECs, no treatment (Exp A)					pMBECs, no treatment (Exp B)					pMBECs +B78chOVA (Exp A)										pMBECs +B78chOVA +GM6001 (20µM) (Exp A)											
	sample					sample					sample					sample					sample										sample											
	1	2	3	mean	STDEV	1	2	3	mean	STDEV	1	2	3	mean	STDEV	1	2	3	mean	STDEV	1	2	3	4	5	6	7	8	9	mean	STDEV	1	2	3	4	5	6	7	8	9	mean	STDEV
	ohm/cm ²					ohm/cm ²					ohm/cm ²					ohm/cm ²					ohm/cm2										ohm/cm2											
start(0)	7.25	8.73	8.55	8.18	0.81	5.54	6.31	7.27	6.37	0.87	18.04	20.61	20.33	19.66	1.41	26.74	24.10	27.70	26.18	1.86	23.63	22.55	21.24	21.07	21.28	20.55	20.53	20.54	17.79	21.02	1.60	19.80	20.53	19.46	19.85	19.19	20.81	18.42	20.20	18.43	19.63	0.85
0.25	7.39	8.79	8.61	8.26	0.76	5.55	6.33	7.26	6.38	0.86	17.85	20.39	20.12	19.45	1.40	26.18	23.89	27.43	25.83	1.80	22.34	21.12	19.86	19.49	19.92	19.22	19.23	19.20	16.62	19.67	1.55	19.61	20.22	19.19	19.49	18.94	20.50	18.20	19.85	18.15	19.35	0.82
0.50	7.49	8.77	8.61	8.29	0.70	5.53	6.33	7.25	6.37	0.86	17.69	20.31	19.95	19.42	1.26	25.86	23.71	27.29	25.62	1.80	21.57	20.33	19.09	18.65	19.06	18.43	18.48	18.47	15.84	18.88	1.55	19.62	20.22	19.05	19.25	18.71	20.58	18.04	19.64	17.99	19.14	0.79
0.75	7.66	8.80	8.69	8.38	0.63	5.56	6.36	7.28	6.40	0.86	17.54	20.06	19.70	19.10	1.36	25.78	23.75	27.27	25.60	1.77	21.25	19.94	18.81	18.25	18.63	18.06	18.15	18.14	15.47	18.52	1.56	19.15	19.62	18.80	18.97	18.47	20.05	17.82	19.36	17.71	18.88	0.78
1.00	7.77	8.77	8.70	8.41	0.56	5.48	6.30	7.20	6.33	0.86	17.43	19.89	19.52	18.95	1.33	25.82	23.73	27.31	25.62	1.80	21.06	19.74	18.71	17.91	18.43	17.87	17.93	17.89	15.22	18.31	1.58	18.85	19.34	18.48	18.65	18.18	19.73	17.47	19.06	17.32	18.56	0.81
1.25	7.95	8.76	8.79	8.50	0.48	5.58	6.38	7.31	6.42	0.87	17.28	19.71	19.30	18.76	1.30	25.86	23.74	27.27	25.62	1.78	20.71	19.49	18.49	17.51	18.12	17.68	17.52	17.65	14.84	18.00	1.60	18.51	19.02	18.12	18.34	17.83	19.33	17.18	18.72	16.95	18.22	0.80
1.50	7.98	8.77	8.88	8.54	0.49	5.54	6.38	7.29	6.40	0.88	17.20	19.52	19.05	18.59	1.23	25.80	23.62	27.20	25.54	1.80	20.28	19.06	18.03	17.06	17.81	17.29	17.18	17.41	14.53	17.63	1.56	18.18	18.72	17.77	18.00	17.50	19.00	16.79	18.38	16.60	17.88	0.81
1.75	8.12	8.88	9.09	8.70	0.51	5.51	6.33	7.24	6.36	0.87	17.15	19.45	18.96	18.52	1.21	25.69	23.51	27.02	25.41	1.77	19.84	18.67	17.53	16.51	17.30	16.94	16.79	17.00	14.11	17.19	1.56	17.85	18.38	17.33	17.67	17.15	18.59	16.46	18.05	16.23	17.52	0.81
2.00	8.24	8.94	9.22	8.80	0.50	5.55	6.35	7.26	6.39	0.86	17.18	19.44	18.97	18.53	1.19	25.61	23.38	26.97	25.32	1.81	19.51	18.11	16.91	16.07	16.76	16.46	16.35	16.51	13.70	16.71	1.56	17.71	18.22	17.06	17.43	16.97	18.40	16.16	17.76	15.95	17.30	0.85
2.25	8.32	8.99	9.34	8.88	0.52	5.48	6.32	7.21	6.34	0.87	17.29	19.52	19.13	18.65	1.19	25.42	23.27	26.91	25.20	1.83	19.03	17.62	16.40	15.51	16.22	15.98	15.94	15.91	13.31	16.21	1.54	17.64	18.06	16.82	17.20	16.84	18.22	16.01	17.59	15.76	17.14	0.86
2.50	8.42	9.11	9.43	8.99	0.52	5.47	6.28	7.20	6.32	0.87	17.45	19.65	19.34	18.81	1.19	25.33	23.19	26.31	24.94	1.80	18.64	17.15	16.05	15.15	15.92	15.59	15.65	15.55	13.04	15.86	1.50	17.58	18.05	16.67	17.34	16.79	18.14	15.91	17.57	15.63	17.06	0.89
2.75	8.44	9.08	9.44	8.99	0.51	5.51	6.31	7.21	6.34	0.85	17.57	19.74	19.47	18.93	1.18	25.23	23.05	25.83	24.70	1.46	18.36	16.90	15.88	14.90	15.71	15.37	15.45	15.35	12.82	15.64	1.49	17.63	18.00	16.62	17.25	16.80	18.07	15.87	17.57	15.65	17.05	0.88
3.00	8.44	9.15	9.48	9.02	0.53	5.47	6.27	7.16	6.30	0.85	17.68	19.79	19.50	18.99	1.14	25.07	22.87	26.38	24.77	1.77	18.18	16.73	15.87	14.68	15.59	15.28	15.40	15.21	12.72	15.52	1.47	17.59	17.92	16.57	17.20	16.78	17.97	15.69	17.45	15.58	16.97	0.89

B

time (h)	pMBECs, no treatment (Exp A)					pMBECs, no treatment (Exp B)					pMBECs +B78chOVA (Exp A)										pMBECs +B78chOVA +GM6001 (20µM) (Exp A)																
	sample					sample					sample										sample																
	1	2	3	mean	STDEV	1	2	3	mean	STDEV	1	2	3	4	5	6	7	8	9	mean	STDEV	1	2	3	4	5	6	7	8	9	mean	STDEV					
	ohm/cm ²					ohm/cm ²					ohm/cm2										ohm/cm2																
start(0)						9.86	12.43	12.15	11.48	1.41	20.37	17.73	21.33	19.81	1.86	15.45	14.37	13.06	12.89	13.10	12.37	12.35	12.36	9.61	12.84	1.60	11.62	12.35	11.28	11.67	11.01	12.63	10.24	12.02	10.25	11.46	0.85
0.25						9.59	12.13	11.86	11.19	1.40	19.80	17.51	21.05	19.45	1.80	14.08	12.86	11.60	11.23	11.66	10.96	10.97	10.94	8.36	11.40	1.55	11.35	11.96	10.93	11.23	10.68	12.24	9.94	11.59	9.89	11.09	0.82
0.50						9.40	12.02	11.66	11.03	1.42	19.49	17.34	20.92	19.25	1.80	13.28	12.04	10.80	10.36	10.77	10.14	10.19	10.18	7.55	10.59	1.55	11.13	11.63	10.76	10.96	10.42	11.99	9.75	11.35	9.70	10.85	0.79
0.75						9.16	11.68	11.32	10.72	1.36	19.38	17.35	20.87	19.20	1.77	12.87	11.56	10.43	9.87	10.25	9.68	9.77	9.76	7.09	10.14	1.56	10.77	11.24	10.42	10.59	10.09	11.67	9.44	10.98	9.33	10.50	0.78
1.00						9.02	11.48	11.11	10.53	1.33	19.49	17.40	20.98	19.29	1.80	12.65	11.33	10.30	9.50	10.02	9.46	9.52	9.48	6.81	9.89	1.58	10.44	10.93	10.07	10.24	9.77	11.32	9.06	10.65	9.01	10.15	0.81
1.25						8.78	11.21	10.80	10.26	1.30	19.44	17.32	20.85	19.20	1.78	12.21	10.99	9.99	9.01	9.62	9.18	9.02	9.15	6.34	9.50	1.60	10.01	10.52	9.62	9.84	9.33	10.83	8.68	10.22	8.45	9.72	0.80
1.50						8.66	10.98	10.51	10.05	1.23	19.40	17.22	20.80	19.14	1.80	11.74	10.52	9.49	8.52	9.27	8.75	8.64	8.87	5.99	9.08	1.56	9.64	10.18	9.23	9.96	8.96	10.46	8.25	9.84	8.06	9.34	0.81
1.75						8.45	10.75	10.26	9.82	1.21	19.33	17.15	20.66	19.05	1.77	11.14	9.97	8.83	7.81	8.60	8.24	8.09	8.30	5.41	8.49	1.56	9.15	9.68	8.63	8.97	8.45	9.89	7.76	9.35	7.53	8.83	0.81
2.00						8.38	10.64	10.17	9.73	1.19	19.22	16.99	20.58	18.93	1.81	10.71	9.31	8.11	7.27	7.96	7.66	7.55	7.71	4.90	7.91	1.56	8.91	9.42	8.26	8.63	8.17	9.60	7.36	8.96	7.15	8.50	0.85
2.25						8.41	10.64	10.25	9.76	1.19	19.08	16.93	20.57	18.86	1.83	10.15	8.74	7.52	6.63	7.34	7.10	7.06	7.03	4.43	7.33	1.54	8.76	9.18	7.94	8.42	7.96	9.34	7.13	8.71	6.88	8.25	0.86
2.50						8.46	10.66	10.35	9.83	1.19	19.01	16.87	19.99	18.63	1.60	9.65	8.16	7.06	6.16	6.93	6.60	6.66	6.56	4.05	6.87	1.50	8.59	9.06	7.68	8.25	7.80	9.15	6.92	8.58	6.64	8.08	0.89
2.75						8.58	10.75	10.48	9.94	1.18	18.89	16.71	19.49	18.36	1.46	9.37	7.91	6.89	5.91	6.72	6.38	6.46	6.36	3.83	6.65	1.49	8.64	9.01	7.63	8.26	7.81	9.08	6.88	8.58	6.66	8.06	0.88
3.00						8.66	10.77	10.48	9.97	1.14	18.77	16.57	20.08	18.47	1.77	9.16	7.71	6.85	5.66	6.57	6.26	6.38	6.19	3.70	6.49	1.47	8.57	8.90	7.55	8.18	7.76	8.95	6.67	8.43	6.56	7.95	0.89

C

time (h)	pMBECs, no treatment (Exp A)					pMBECs, no treatment (Exp B)					pMBECs +B78chOVA (Exp A)										pMBECs +B78chOVA +GM6001 (20µM)											
	sample					sample					sample										sample											
	1	2	3	mean	STDEV	1	2	3	mean	STDEV	1	2	3	4	5	6	7	8	9	mean	STDEV	1	2	3	4	5	6	7	8	9	mean	STDEV
	Values expressed relative to first time point set to 100 % (orange field of the upper table).																															
start(0)	85.9	108.3	105.8	100.0	12.3	102.8	89.5	107.7	100.0	9.4	120.3	111.9	101.7	100.4	102.0	96.3	96.2	96.3	74.9	100.0	12.4	101.5	107.8	98.5	101.9	96.1	110.3	89.4	105.0	89.5	100.0	7.4
0.25	83.5	105.6	103.3	97.4	12.1	100.0	88.4	106.3	98.2	9.1	109.6	100.1	90.3	87.4	90.8	85.3	85.4	85.2	65.1	88.8	12.1	99.0	104.8	95.4	98.0	93.2	106.8	86.7	101.1	86.3	96.8	7.2
0.50	81.9	104.7	101.5	96.0	12.4	98.4	87.5	105.6	97.2	9.1	103.4	93.7	84.1	80.7	83.9	79.0	79.3	79.3	58.8	82.5	12.1	97.2	101.5	93.9	95.7	91.0	104.7	85.1	99.1	84.7	94.8	6.9
0.75	79.7	101.7	98.5	93.3	11.9	97.8	87.6	105.4	96.9	8.9	100.2	90.0	81.2	76.8	79.8	75.3	76.0	76.0	55.2	78.9	12.1	94.0	98.1	90.9	92.4	88.1	101.8	82.4	95.8	81.		

Supplementary Table S2. **A** lists the initial absolute TEER values. **B** lists the absolute TEER values subtracted by mean TEER values of the empty filters. **C** shows the calculation of the data shown in Supplementary Figure 1B.