

Table S2. Differential gene expression of PTP family members in MS white matter lesions

	WML vs CWM			WML vs NAWM			NAWM vs CWM	
	Fold	Pvalue		Fold	Pvalue		Fold	Pvalue
PTPN18	-15.47	0.004	PTPN18	-14.15	0.019	DUSP2	-3.30	0.009
DUSP1	-6.97	0.001	DUSP1	-5.82	0.000	DUSP6	-2.67	0.003
PTP4A2	-5.82	0.001	MTMR10	-5.30	0.002	PTPN7	-2.18	0.115
SSH3	-5.46	0.007	SSH3	-4.87	0.001	PTPN22	-2.11	0.032
DUSP22	-4.77	0.002	DUSP22	-3.93	0.002	PTPN1	-1.97	0.141
MTMR7	-4.51	0.002	DUSP11	-3.70	0.013	PTP4A2	-1.79	0.002
PTPRD	-4.12	0.001	PTP4A2	-3.25	0.001	PTPRE	-1.68	0.022
MTMR10	-4.08	0.000	PTPN14	-3.03	0.042	PTPN6	-1.67	0.044
DUSP11	-3.71	0.006	PTPRD	-3.02	0.003	DUSP5	-1.65	0.008
DUSP5	-3.69	0.016	MTMR2	-2.86	0.016	MTMR7	-1.61	0.010
PTPN13	-3.55	0.011	MTMR7	-2.80	0.002	PTPRC	-1.60	0.090
PTPN14	-3.31	0.008	PTPRZ1	-2.63	0.008	MTMR8	-1.57	0.089
PTPN1	-3.18	0.133	DUSP3	-2.62	0.004	PTPRH	-1.56	0.097
PTPN11	-3.16	0.001	MTMR12	-2.60	0.003	DUSP15	-1.54	0.048
MTM1	-2.69	0.000	MTM1	-2.42	0.037	PTP4A3	-1.53	0.006
PTPRC	-2.67	0.096	PTPN11	-2.38	0.002	PTPN13	-1.50	0.071
PTPRZ1	-2.59	0.001	PTPN13	-2.37	0.005	PTPRQ2	-1.48	0.128
SSH2	-2.47	0.014	PTPRU	-2.25	0.046	MTMR11	-1.45	0.075
MTMR12	-2.43	0.004	DUSP5	-2.24	0.032	hEPM2A	-1.38	0.051
MTMR2	-2.39	0.007	PTPRJ	-2.23	0.053	PTPRD	-1.36	0.019
DUSP16	-2.34	0.012	PTPRF	-2.20	0.007	PTPN11	-1.33	0.012
PTP4A1	-2.27	0.013	DUSP16	-2.03	0.025	PTPDC1	-1.30	0.026
PTPRF	-2.08	0.012	SSH2	-2.00	0.018	hRNGTT	-1.27	0.006
PTPRU	-1.92	0.072	DUSP10	-1.93	0.031	SSH2	-1.23	0.009
PTPRJ	-1.92	0.037	PTP4A1	-1.90	0.032	CDC14b	-1.23	0.186
TNS1	-1.88	0.010	TNS1	-1.79	0.003	CDKN3	-1.23	0.328
DUSP3	-1.82	0.005	PTPRC	-1.67	0.105	PTPMT1	-1.22	0.020
DUSP10	-1.76	0.060	MTMR4	-1.67	0.017	DUSP22	-1.21	0.052
SBF2	-1.71	0.003	PTPRK	-1.65	0.024	DUSP1	-1.20	0.016
MTMR4	-1.69	0.004	PTPN1	-1.61	0.112	PTP4A1	-1.20	0.074
PTPMT1	-1.54	0.009	SBF2	-1.60	0.021	PTPN12	-1.19	0.165
PTPRA	-1.54	0.000	DUSP7	-1.57	0.017	DUSP9	-1.17	0.271
CDC14A	-1.39	0.215	PTPRA	-1.49	0.007	STYXL1	-1.17	0.137
PTPN4	-1.35	0.119	PTPN23	-1.47	0.108	CDC14A	-1.16	0.154
STYXL1	-1.27	0.119	PTPRB	-1.43	0.121	DUSP4	-1.15	0.210
PTPRK	-1.24	0.052	PTPN4	-1.36	0.051	DUSP16	-1.15	0.231
MTMR6	-1.22	0.282	STYX	-1.29	0.018	TENC1	-1.15	0.079
DUSP7	-1.19	0.164	MTMR6	-1.29	0.146	SSH3	-1.12	0.190
PTPRE	-1.17	0.123	PTPMT1	-1.27	0.036	MTM1	-1.11	0.287
PTPDC1	-1.15	0.047	PTPRO	-1.23	0.122	PTPN14	-1.09	0.246
STYX	-1.11	0.008	MTMR1	-1.22	0.052	PTPN18	-1.09	0.371
MTMR1	-1.08	0.362	CDC14A	-1.20	0.272	DUSP12	-1.07	0.263
PTPRB	-1.07	0.408	SSH1	-1.13	0.181	ACPI	-1.07	0.315
MTMR9	-1.06	0.406	STYXL1	-1.09	0.301	SBF2	-1.07	0.192
PTEN	-1.02	0.467	PTEN	-1.08	0.117	TNS1	-1.05	0.206
PTPN12	1.04	0.411	PTPN21	-1.06	0.272	CDC25A	-1.05	0.471
PTPRO	1.10	0.280	MTMR9	-1.05	0.367	PTPRA	-1.04	0.203
PTPRS	1.17	0.126	PTPRS	1.00	0.481	MTMR4	-1.01	0.402
SBF1	1.19	0.144	SBF1	1.10	0.173	MTMR9	-1.01	0.474

<b>PTPN23</b>	1.20	0.184	<b>TNS3</b>	1.12	0.249	<b>DUSP11</b>	-1.00	0.488
<b>CDKN3</b>	1.23	0.298	<b>PTPDC1</b>	1.13	0.161	<b>PTPRG</b>	1.00	0.481
<b>PTPRG</b>	1.26	0.012	<b>PTPRN</b>	1.19	0.279	<b>PTPN4</b>	1.01	0.475
<b>SSH1</b>	1.28	0.151	<b>PTPN12</b>	1.24	0.066	<b>PTPRZ1</b>	1.01	0.411
<b>hRNGTT</b>	1.34	0.098	<b>PTPRG</b>	1.25	0.017	<b>PTPRM</b>	1.02	0.433
<b>CDC14b</b>	1.54	0.049	<b>PTPRE</b>	1.43	0.001	<b>MTMR3</b>	1.03	0.291
<b>PTPN21</b>	1.55	0.108	<b>CDKN3</b>	1.51	0.183	<b>MTMR6</b>	1.06	0.332
<b>TNS3</b>	1.72	0.078	<b>hRNGTT</b>	1.71	0.049	<b>PTPRF</b>	1.06	0.175
<b>MTMR3</b>	1.83	0.069	<b>MTMR3</b>	1.78	0.061	<b>PTEN</b>	1.06	0.343
<b>PTPRN</b>	1.90	0.053	<b>CDC25B</b>	1.85	0.021	<b>MTMR12</b>	1.07	0.279
<b>DUSP12</b>	2.29	0.015	<b>CDC14b</b>	1.89	0.153	<b>SBF1</b>	1.08	0.106
<b>CDC25B</b>	2.31	0.028	<b>PTPN9</b>	2.35	0.026	<b>DUSP10</b>	1.09	0.038
<b>CDC25A</b>	2.35	0.317	<b>DUSP12</b>	2.46	0.021	<b>PTPN2</b>	1.10	0.277
<b>TENC1</b>	2.57	0.004	<b>CDC25A</b>	2.46	0.194	<b>PTPN3</b>	1.12	0.077
<b>PTPN9</b>	2.92	0.015	<b>DUSP23</b>	2.72	0.030	<b>MTMR1</b>	1.13	0.309
<b>DUSP2</b>	3.07	0.051	<b>PTPRT</b>	2.76	0.034	<b>PTPRN2</b>	1.14	0.055
<b>hEPM2A</b>	3.08	0.011	<b>DUSP14</b>	2.78	0.007	<b>PTPRJ</b>	1.16	0.251
<b>DUSP14</b>	3.48	0.004	<b>TENC1</b>	2.96	0.004	<b>STYX</b>	1.16	0.030
<b>PTPN7</b>	3.61	0.321	<b>DUSP8</b>	3.18	0.012	<b>PTPRS</b>	1.16	0.107
<b>DUSP23</b>	4.07	0.020	<b>CDC25C</b>	3.21	0.224	<b>PTPRU</b>	1.17	0.061
<b>CDC25C</b>	4.38	0.102	<b>PTPN2</b>	4.17	0.004	<b>MTMR2</b>	1.20	0.063
<b>PTP4A3</b>	4.41	0.001	<b>hEPM2A</b>	4.26	0.005	<b>PTPN9</b>	1.24	0.048
<b>DUSP8</b>	4.47	0.017	<b>PTPN3</b>	4.73	0.003	<b>DUSP14</b>	1.25	0.055
<b>PTPN2</b>	4.57	0.007	<b>ACP1</b>	4.91	0.029	<b>CDC25B</b>	1.25	0.065
<b>ACP1</b>	4.58	0.034	<b>PTPN5</b>	4.97	0.005	<b>MTMR10</b>	1.30	0.017
<b>PTPN3</b>	5.29	0.002	<b>DUSP18</b>	5.19	0.034	<b>DUSP7</b>	1.33	0.026
<b>PTPRT</b>	5.52	0.021	<b>PTPRN2</b>	6.20	0.001	<b>PTPRK</b>	1.33	0.031
<b>DUSP6</b>	5.88	0.014	<b>PTP4A3</b>	6.77	0.000	<b>PTPRB</b>	1.35	0.006
<b>DUSP4</b>	6.13	0.011	<b>DUSP4</b>	7.07	0.008	<b>PTPRO</b>	1.36	0.013
<b>PTPRH</b>	6.58	0.008	<b>PTPRM</b>	7.34	0.006	<b>CDC25C</b>	1.36	0.499
<b>PTPRN2</b>	7.09	0.001	<b>PTPN7</b>	7.85	0.265	<b>DUSP8</b>	1.41	0.066
<b>PTPRM</b>	7.45	0.007	<b>PTPRR</b>	9.55	0.008	<b>DUSP3</b>	1.44	0.024
<b>PTPN5</b>	8.00	0.005	<b>DUSP2</b>	10.13	0.024	<b>SSH1</b>	1.45	0.033
<b>DUSP15</b>	8.51	0.001	<b>PTPRH</b>	10.27	0.007	<b>DUSP23</b>	1.50	0.009
<b>DUSP18</b>	9.86	0.025	<b>DUSP15</b>	13.10	0.001	<b>PTPRR</b>	1.53	0.068
<b>PTPRR</b>	14.62	0.009	<b>DUSP6</b>	15.69	0.010	<b>TNS3</b>	1.53	0.042
<b>DUSP9</b>	26.43	0.008	<b>DUSP9</b>	30.83	0.008	<b>PTPRN</b>	1.60	0.020
<b>PTPN22</b>	37.12	0.057	<b>PTPN22</b>	78.50	0.055	<b>PTPN5</b>	1.61	0.005
<b>PTPRQ2</b>	164.27	0.012	<b>PTPRQ2</b>	243.77	0.012	<b>DUSP19</b>	1.64	0.043
<b>DUSP19</b>	ND	ND	<b>DUSP19</b>	ND	ND	<b>PTPN21</b>	1.65	0.033
<b>MTMR8</b>	ND	ND	<b>MTMR8</b>	ND	ND	<b>PTPN23</b>	1.76	0.105
<b>MTMR11</b>	ND	ND	<b>MTMR11</b>	ND	ND	<b>DUSP18</b>	1.90	0.020
<b>PTPN6</b>	ND	ND	<b>PTPN6</b>	ND	ND	<b>PTPRT</b>	2.00	0.002

ND: Non Determined; WML: White Matter lesioned; CWM: Control White Matter; NAWM: Normal-appearing White Matter