

Supplemental Data

Lipid Transfer Activity

Sample	PC	CE	TG
Control	0.78	0.89	0.78
MS-1	1.25	0.86	0.64
MS-2	1.26	0.89	0.61
MS-3	4.1	0.88	0.63
MS-4	1.9	0.89	0.68

Percent lipid substrate transferred per minute by pooled plasma samples from subjects with MS and controls. Phospholipid transfer activity was elevated in MS (mean=1.58%, Range=1.25-4.10%) over the control group (0.78%). Cholesterol transfer was similar in MS (mean=0.885%, range=0.86-0.89%) as controls (0.89%). Triglyceride transfer was decreased in MS (0.638%, range=0.61-0.68%) compared to controls (0.78%).

Phospholipid Transfer Ranges

Diagnosis	n	% Transfer (Ave)	Range	SD
-----------	---	------------------	-------	----

Healthy Controls	10	0.8	(-3) - 4	2.3
Lipid Disorders	12	0.6	(-1) - 3	1.3
Neurological Diseases	5	2.1	1 - 4	1.0
Other Diseases	2	3.0	(1) - (5)	na
Total Controls	29	1.1	(-5) - 4	1.9
Multiple Sclerosis	33	33.4	22 - 46	6.6

PC transfer activities for MS, normal controls and other diseases: Expressed as % PC labelled HDL transferred/1 hour assay at 37⁰C by 10µl of plasma. Data used to calculate reference ranges for plasma phospholipid transfer in both MS patients and controls. Subjects with MS showed increased ability to transfer PC from HDL.

Determination of PLTP Activiy

'Assayed Blind'

Sample#	% Transfer	Assay diagnosis	Clinical diagnosis	Correct(yes/no)
1	2.00	Control	Control	YES
2	34.50	MS	MS	YES
3	25.00	MS	MS	YES
4	46.90	MS	MS	YES
5	0.00	Control	Control	YES
6	1.50	Control	Control	YES
7	29.60	MS	MS	YES
8	34.30	MS	MS	YES
9	-2.40	Control	Control	YES
10	47.50	MS	MS	YES
11	3.10	Control	Control	YES
12	27.00	MS	MS	YES
13	5.70	Control	Control	YES
14	22.30	MS	Control	NO
15	34.50	MS	MS	YES
16	56.70	MS	MS	YES
17	28.90	MS	MS	YES
18	20.20	MS	MS	YES
19	34.70	MS	MS	YES
20	3.40	Control	Control	YES
21	31.40	MS	MS	YES
22	45.60	MS	MS	YES
23	51.30	MS	MS	YES
24	28.00	MS	MS	YES

25	0.50	Control	Control	YES
26	36.70	MS	MS	YES
27	41.30	MS	MS	YES
28	39.40	MS	MS	YES
29	0.00	Control	Control	YES
30	52.30	MS	MS	YES
31	27.60	MS	MS	YES
32	-4.00	Control	Control	YES
33	21.50	MS	MS	YES
34	26.90	MS	MS	YES
35	38.40	MS	MS	YES
36	24.70	MS	MS	YES
37	39.40	MS	MS	YES
37	-3.40	Control	Control	YES
38	46.50	MS	MS	YES
39	35.40	MS	MS	YES
40	46.90	MS	MS	YES
41	0.40	Control	Control	YES
42	0.00	Control	Control	YES
43	32.70	MS	MS	YES
44	33.80	MS	MS	YES
45	31.00	MS	MS	YES
46	27.50	MS	MS	YES
47	2.60	Control	Control	YES
48	1.40	Control	Control	YES
49	41.50	MS	MS	YES
50	28.90	MS	MS	YES
51	35.90	MS	MS	YES
52	41.70	MS	MS	YES
53	43.70	MS	MS	YES

