

Supplementary table 1. Cultured PBMC supernatant analysis.

Analyses of cytokines and soluble CD40L in supernatants of PBMC cultured for 6 days after stimulation with *Giardia* assemblage A and B lysate in persons exposed to this pathogen in the Bergen 2004 outbreak with or without fatigue sequels, and in unexposed controls. Values are pg/mL, median (SD) in stimulated cultures after subtracting measurements in unstimulated cultures. Negative values express higher levels in unstimulated cultures. Complete list of analysed analytes, including also values for *Giardia* assemblage B given in the manuscript.

| Analyte per stimulation agent | Exposed | | | | Unexposed controls (n=10) | p-values | |
|------------------------------------|---------------------------------|-----------------------|---------------------------|-------------------------------|---------------------------|------------------------------------|--|
| | No PI-fatigue controls (n = 19) | PI-CFS & ICF (n = 19) | Fatigue other cause (n=9) | Recovered from fatigue (n=10) | | Exposed (n=56) vs unexposed (n=10) | No PI-fatigue controls (n=19) vs PI-CFS/ICF (n=19) |
| <i>Giardia ass A</i> | n=20 | n=19 | n=8 | n=9 | n=10 | | |
| IL-1b | 8.3 (68.4) | 3.3 (28.9) | 5.9 (19.3) | 13.3 (266) | 1.7 (115) | 0.031 | ns* |
| IL-4 | 2.1 (6.1) | 0.0 (4.8) | 0.0 (7.9) | 0.8 (5.4) | 2.7 (30.1) | 0.420 | ns* |
| IL-6 | 535 (2539) | 233 (629) | 289 (685) | 752 (12866) | 129 (5444) | 0.058 | ns* |
| IL-10 | 21.3 (15.9) | 18.9 (18.8) | 27.7 (10.3) | 26.4 (41.4) | 13.4 (49.2) | 0.131 | ns* |
| IFNy | 913 (5221) | 601 (4973) | 1364 (2354) | 3401 (2971) | 153 (967) | 0.020 | ns* |
| sCD40L | 31.5 (34.4) | 43.3 (51.0) | 46.8 (20.8) | 46.0 (26.6) | 11.6 (49.5) | 0.005 | ns* |
| TNFa | 281 (493) | 174 (373) | 520 (422) | 525 (1019) | 110 (212) | 0.017 | ns* |
| IL-2 | 0.0 (14.5) | 0.0 (5.8) | 1.4 (3.7) | -0.6 (5.1) | 2.0 (6.8) | 0.388 | ns* |
| IL-9 | 1.6 (25.2) | 3.0 (36.0) | 5.1 (10.3) | 9.4 (26.7) | 0.4 (145) | 0.442 | ns* |
| IL-13 | 244 (236) | 135 (181) | 270 (275) | 233 (156) | 84 (223) | 0.061 | ns* |
| GMCSF | 9.4 (142) | 0.0 (74.2) | 12.4 (49.7) | 30.1 (153) | 0.0 (78.8) | 0.177 | ns* |
| MIPa | 122 (622) | 56.5 (619) | 196 (412) | 420 (478) | 31.1 (526) | 0.217 | ns* |
| MIPb | 1796 (1359) | 1465 (1968) | 1592 (658) | 2505 (1305) | 442 (1983) | 0.069 | ns* |
| TGFb1 | 9.2 (2440) | -98.2 (2726) | -1817 (1481) | -1743 (3510) | -117 (1412) | 0.468 | ns* |
| TGFb2 | 6.8 (66.0) | 21.6 (50.3) | -77.4 (78.2) | 0.9 (72.6) | -34.6 (68.2) | 0.422 | ns* |
| TGFb3 | 9.4 (20.5) | -0.7 (19.3) | -8.2 (17.8) | -20.4 (31.1) | 14.3 (299) | 0.076 | ns* |
| <i>Giardia ass B</i> | n=20 | n=19 | n=8 | n=9 | n=10 | | |
| IL-1b | 8.4 (63.5) | 23.7 (211) | 10.0 (37.0) | 37.3 (207) | 0.8 (8.8) | <0.001 | ns* |
| IL-4 | 4.1 (6.6) | 4.9 (4.8) | -0.7 (7.4) | 7.7 (5.6) | 4.0 (29.4) | 0.838 | ns* |
| IL-6 | 496 (8364) | 781 (18566) | 957 (659) | 741 (991) | 85.3 (310) | <0.001 | ns* |
| IL-10 | 19.7 (23.3) | 25.2 (354) | 22.7 (13.2) | 25.1 (5.9) | 7.1 (25.3) | <0.001 | ns* |
| IFNy | 1009 (3656) | 1627 (4637) | 775 (2569) | 2577 (2322) | 31.6 (956) | <0.001 | ns* |
| sCD40L | 7.5 (25.0) | 35.6 (59.0) | 26.6 (27.3) | 19.5 (53.5) | 0.0 (43.2) | 0.003 | 0.005 |
| TNFa | 192 (407) | 346 (713) | 213 (990) | 395 (787) | 7.6 (166) | <0.001 | ns* |
| IL-2 | 5.9 (9.3) | 7.1 (8.1) | 15.7 (15.1) | 6.1 (8.9) | 4.7 (4.6) | 0.107 | ns* |
| IL-9 | 11.7 (39.7) | 23.5 (155) | 20.3 (22.9) | 23.6 (115) | 2.8 (14.5) | 0.018 | ns* |
| IL-13 | 230 (203) | 262 (212) | 248 (371) | 441 (272) | 72.8 (100) | 0.002 | ns* |
| MIPa | 51.1 (657) | 112 (645) | 252 (427) | 692 (540) | 15.5 (399) | 0.034 | ns* |
| MIPb | 1691 (1856) | 2306 (1939) | 1754 (1618) | 2862 (4195) | 258 (1765) | 0.034 | ns* |
| TGFb1 | -959 (2759) | -2083 (2243) | -1914 (1869) | -2749 (3429) | -3680 (1438) | 0.033 | ns* |
| TGFb2 | -43.2 (61.7) | 5.7 (46.4) | 7.5 (111) | 21.0 (45.0) | -34.7 (61.1) | 0.132 | ns* |
| TGFb | 4.7 (23.0) | -10.5 (19.3) | -7.2 (8.3) | -20.5 (15.3) | -10.3 (43.0) | 0.869 | ns* |
| <i>Tuberculin (PPD)</i> | n=16 | n=14 | n=8 | n=8 | n=9 | | |
| IL-1b | 171 (494) | 123 (422) | 152 (322) | 235 (328) | 64.6 (142) | 0.144 | ns* |
| IL-4 | 0.6 (7.9) | 0.0 (7.1) | 0.1 (3.7) | 1.2 (4.2) | 1.9 (27.6) | 0.674 | ns* |
| IL-6 | 46299 (15478) | 43172 (21101) | 47856 (16730) | 43910 (16441) | 38190 (19503) | 0.073 | ns* |
| IL-10 | 141 (230) | 140 (180) | 134 (66) | 112 (228) | 61 (156) | 0.251 | ns* |
| IFNy | 5696 (7773) | 3699 (6334) | 8921 (5771) | 9696 (4271) | 751 (3774) | 0.040 | ns* |
| sCD40L | 51.3 (41.9) | 68.1 (45.9) | 110 (108) | 86.1 (21.8) | 36.1 (35.4) | 0.027 | ns* |
| TNFa | 841 (2117) | 983 (1096) | 923 (928) | 1257 (1527) | 417 (596) | 0.106 | ns* |
| IL-2 | 0.0 (5.3) | 0.0 (7.1) | 0.5 (6.2) | -3.8 (8.5) | 0.0 (10.3) | 0.258 | ns* |
| IL-9 | 41.9 (84.2) | 125 (212) | 94.0 (192) | 68.5 (407) | 42.7 (307) | 0.587 | ns* |
| IL-13 | 183 (200) | 287 (427) | 197 (169) | 165 (90.6) | 157 (647) | 0.837 | ns* |
| GMCSF | 107 (156) | 251 (670) | 185 (165) | 164 (134) | 60 (2032) | 0.783 | ns* |
| MIPb | 3872 (2450) | 3769 (1893) | 4863 (2265) | 3652 (29230) | 4092 (1984) | 0.820 | ns* |
| <i>S. typhi lipopolysaccharide</i> | n=14 | n=12 | n=7 | n=8 | n=10 | | |
| IL-1b | 1465 (1142) | 1330 (1220) | 1172 (964) | 1101 (910) | 1176 (2385) | 0.650 | ns* |
| IL-4 | 9.3 (96.0) | 10.1 (20.2) | 0.0 (10.8) | 0.0 (36.2) | 0.0 (26.0) | 0.443 | ns* |
| IL-6 | 255061 (95719) | 224751 (106951) | 248922 (28293) | 242734 (48587) | 217929 (95593) | 0.226 | ns* |
| IL-10 | 537 (521) | 457 (628) | 358 (315) | 471 (847) | 715 (1598) | 0.385 | ns* |
| IL-17A | 2085 (6274) | 547 (4335) | 2854 (2242) | 3358 (4706) | 990 (1637) | 0.199 | ns* |
| IL-22 | 441 (1105) | 0.0 (827) | 0.0 (224) | 773 (633) | 0.0 (543) | 0.287 | ns* |
| IFNy | 38092 (33960) | 10727 (19170) | 24174 (16386) | 37961 (28876) | 6341 (18285) | 0.288 | ns* |
| sCD40L | 525 (557) | 231 (417) | 141 (351) | 487 (279) | 305 (566) | 0.932 | ns* |
| TNFa | 1852 (1161) | 3143 (2427) | 1745 (894) | 2537 (3840) | 1864 (5324) | 0.618 | ns* |
| IL-2 | 4.7 (1427) | 0.0 (84.7) | 11.0 (11.4) | 27.6 (39.3) | 0.0 (69.1) | 0.249 | ns* |
| IL-9 | 126 (781) | 25.1 (718) | 31.7 (227) | 321 (465) | 44.1 (157) | 0.403 | ns* |
| IL-13 | 235 (941) | 113 (721) | 73.0 (275) | 346 (650) | 132 (316) | 0.309 | ns* |
| GMCSF | 343 (919) | 250 (988) | 296 (140) | 455 (422) | 193 (301) | 0.314 | ns* |
| MIPb | 22750 (24459) | 4626 (24025) | 41757 (26924) | 18875 (34739) | 10172 (20709) | 0.367 | ns* |

* KruskalWallis test across all exposed groups was not significant (below p=0.05). ns= not significant