

Identification of *Borrelia* protein candidates in mouse skin for potential diagnosis of disseminated Lyme borreliosis

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Supplementary Information

Table S1. Mice (*Mus musculus* strain C3H/HeN) were infected with one of three *Borrelia* pathogens: *B. burgdorferi* ss strain N40, *B. afzelii* strain NE4049, and *B. garinii* strain PBi via intradermal inoculation. The initial inoculum consisted of 1000 spirochetes in 100 μ L of PBS. At 40 days post-infection, the mice were treated with the dermacorticoid clobetasol over a period of two days to reactivate the spirochete population in the skin. Following the clobetasol treatment, the mice were sacrificed and the skin surrounding the clobetasol treatment was removed and tested for the spirochete load using qPCR. The data show the number of *Borrelia flagellin* gene copies relative to 10,000 *Mus musculus gapdh* gene copies. *B. afzelii* strain NE4049 establishes a much higher spirochete load in the mouse skin than the other two *Borrelia* species.

In grey, mouse skins selected for proteomic studies (Ge-LC-MS/MS).

| Mouse ID # | PCR quantification Number of <i>flagellin</i> / 10 ⁴ <i>gapdh</i> | | |
|------------|---|--------------------------|-----------------------|
| | <i>B. burgdorferi</i> ss N40 | <i>B. afzelii</i> NE4049 | <i>B. garinii</i> PBi |
| 1 | 2.685 | 13.153 | 13.756 |
| 2 | 28.97 | 11.089 | 30.252 |
| 3 | 8.121 | 6.187 | 18.796 |
| 4 | 19.312 | 3.9 | 7.483 |
| 5 | 3.687 | 69.33 | 1.087 |
| 7 | 4.514 | 2.633 | 3.926 |
| 8 | 6.661 | 151.362 | 4.333 |
| 9 | 4.472 | 304.39 | 2.687 |
| 10 | 9.583 | 140.273 | 6.519 |
| 11 | 42.594 | 23.969 | 5.853 |
| 12 | 2.428 | 41.209 | nq |
| 13 | 8.37 | 33.379 | nq |
| 14 | 10.421 | 28.386 | nq |
| 15 | 24.659 | 92.363 | |
| 16 | 6.755 | 37.562 | |
| 17 | 2.648 | 15.582 | |
| 18 | 2.309 | 3.066 | |
| 19 | 76.515 | 111.469 | |
| 20 | 72.72 | | |
| 21 | 17.424 | | |
| 22 | 44.545 | | |

| | | | |
|------------------------|--------------|--------------|-------------|
| 23 | 13.182 | | |
| 24 | 21.182 | | |
| Average quantification | 18.86 | 60.52 | 9.47 |

