**Supplementary Table 3 :** Chromosome structural differences between *B. burgdorferi* B31 and *B. afzelii* PKo and ACA-1

| Difference relative to B31     | B31 | PKo                    | ACA-1                  |
|--------------------------------|-----|------------------------|------------------------|
| bb0138 present                 | +   | _                      | _                      |
| No. of repeats in bb0210       | 7   | 5                      | 5                      |
| bb0223 present                 | +   | _                      | _                      |
| Insert in bb0309               | _   | 44 bp                  | 44 bp                  |
| bmpA gene duplication          | _   | +                      | +                      |
| 16S rRNA gene duplication      | _   | + <sup>a</sup>         | + <sup>a</sup>         |
| Insert between bb0456 & 0457   | _   | 56 bp                  | 56bp                   |
| Deletion between bb0472 & 0473 | _   | 171 bp                 | 171 bp                 |
| Deletion between bb473 & 0475  | _   | ~145 bp <sup>a,b</sup> | ~145 bp <sup>a,b</sup> |
| Indel between bb522 & 0524     | _   | ~250 bp <sup>b</sup>   | ~250 bp <sup>b</sup>   |
| No. of repeats in bb0546       | 5   | 3                      | 4                      |
| Insert in bb0744 (p83/p100)    | _   | ~118 bp <sup>b</sup>   | ~118 bp <sup>b</sup>   |
| Deletion in bb0749             | _   | 143 bp                 | 143 bp                 |
| Insert between bb0796 & 797    | _   | ~330 bp <sup>b</sup>   | ~330 bp <sup>b</sup>   |
| No. of repeats in bb0801       | 12  | 6                      | 12                     |

## Footnotes for Table S3

- + Present
- Not present
- a. *bb0423, bb0424* and *bb0474* in the original B31 annotation were small ORFs that are not open in other *burgdorferi* genomes, so they have been removed from that annotation. All three of these regions are affected in PKo and ACA-1.
- b. Rearrangement is more complex than simple deletion; value depends on precise choice of endpoints.