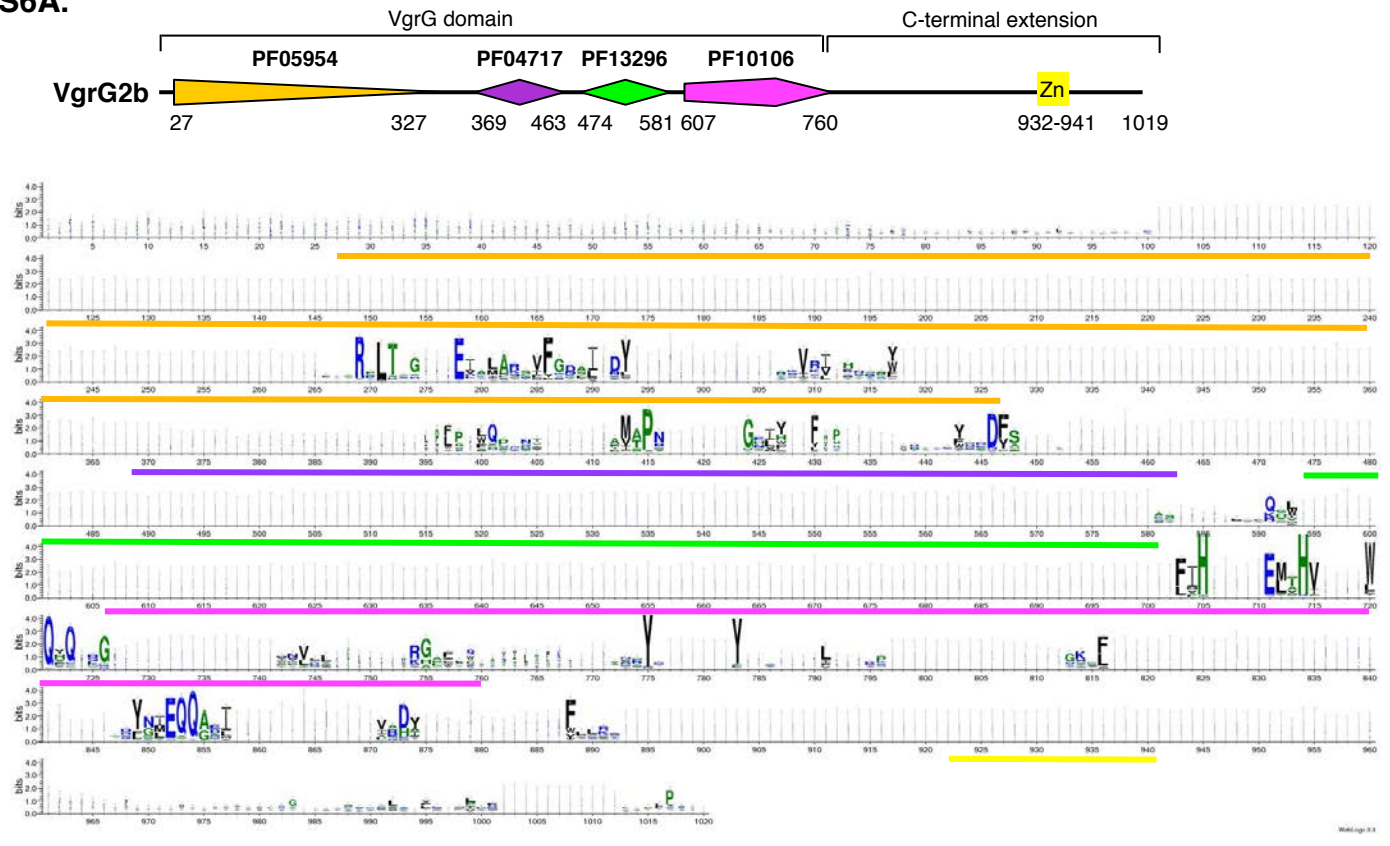
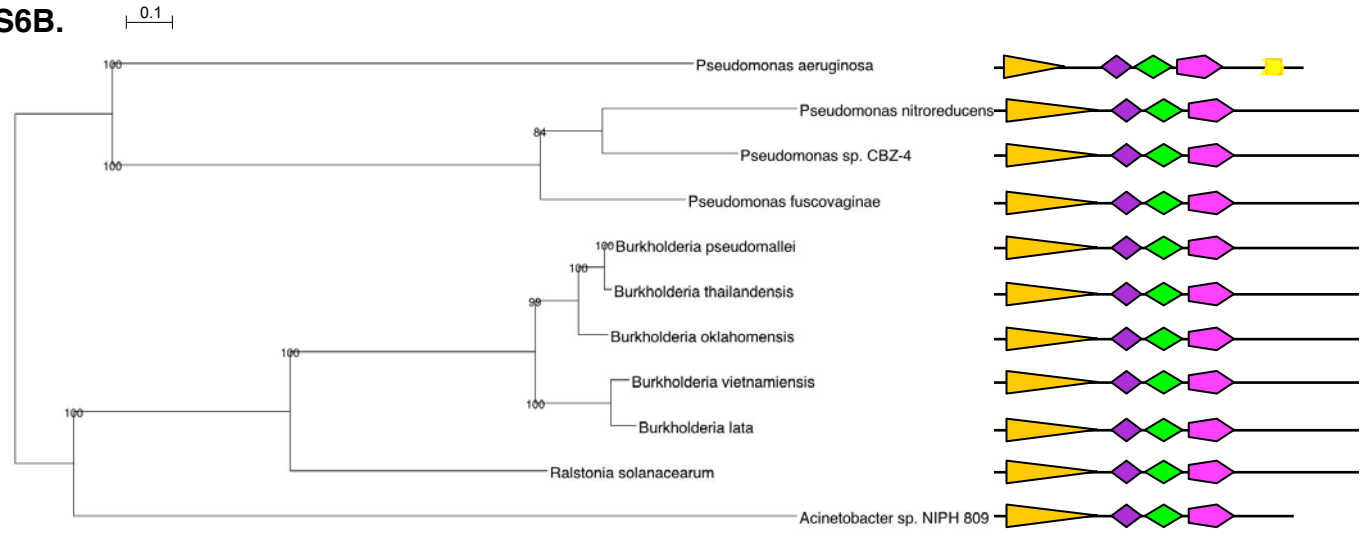


S6A.



S6B.



WP 019360609.1 hypothetical protein [Pseudomonas fuscovaginae]
 WP 017518336.1 hypothetical protein [Pseudomonas nitroreducens]
 WP 017735578.1 hypothetical protein [Pseudomonas sp. CEZ-4]
 WP 004657256.1 hypothetical protein [Acinetobacter sp. NIPH 809]
 YP 003749634.1 rhs element vgr-like protein [Ralstonia solanacearum PS107]
 WP 021160107.1 VgrG protein [Burkholderia vietnamiensis]
 YP 367300.1 Rhs element Vgr protein [Burkholderia lata]
 WP 010104377.1 type IV secretion protein Rhs [Burkholderia oklahomaensis]
 YP 443212.1 Rhs element Vgr protein [Burkholderia thalalandensis E264]
 WP 004545169.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 YP 008742700.1 Rhs element Vgr family protein [Burkholderia pseudomallei NCTC 13179]
 WP 009920920.1 hypothetical protein [Burkholderia pseudomallei]
 YP 1098644.1 hypothetical protein BPSL2046 [Burkholderia pseudomallei K96243]
 WP 004555931.1 hypothetical protein, partial [Burkholderia pseudomallei]
 WP 004550606.1 hypothetical protein, partial [Burkholderia pseudomallei]
 WP 017843543.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 WP 004538394.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 YP 006275039.1 hypothetical protein BP1026B12025 [Burkholderia pseudomallei 1026b]
 WP 004568888.1 hypothetical protein [Burkholderia pseudomallei]
 WP 021251389.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 WP 009970724.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 WP 009966462.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 WP 009990637.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 YP 002896337.1 Rhs element Vgr protein [Burkholderia pseudomallei MSHR346]
 YP 010586268.1 Rhs element Vgr protein [Burkholderia pseudomallei 668]
 YP 008340755.1 Rhs element Vgr family protein [Burkholderia pseudomallei MSHR305]
 WP 009990789.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 WP 004534447.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 WP 009954552.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 WP 004531153.1 type IV secretion protein Rhs [Burkholderia pseudomallei]
 YP 001065881.1 Rhs element Vgr protein [Burkholderia pseudomallei 1106a]
 YP 006652443.1 Rhs element Vgr protein [Burkholderia pseudomallei BPC006]
 WP 004555334.1 hypothetical protein, partial [Burkholderia pseudomallei]
 WP 004554464.1 hypothetical protein, partial [Burkholderia pseudomallei]
 WP 003158517.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 016263952.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023110895.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 004352046.1 conserved hypothetical protein [Pseudomonas aeruginosa]
 WP 010793560.1 type VI secretion system Vgr family protein [Pseudomonas sp. P179]
 WP 004346770.1 conserved hypothetical protein [Pseudomonas aeruginosa]
 YP 008130724.1 type IV secretion protein Rhs [Pseudomonas aeruginosa RP73]
 WP 017148363.1 type IV secretion protein Rhs [Pseudomonas aeruginosa]
 AGV66782.1 Rhs element Vgr family protein [Pseudomonas aeruginosa c7447m]
 WP 023081651.1 hypothetical protein [Pseudomonas aeruginosa]
 YP 006480259.1 hypothetical protein PADK2 01305 [Pseudomonas aeruginosa DK2]
 WP 003118124.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023128378.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023118987.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023130475.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023102785.1 hypothetical protein [Pseudomonas aeruginosa]
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 WP 023115701.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023117869.1 hypothetical protein [Pseudomonas aeruginosa]
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 WP 023104695.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023097128.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023093530.1 hypothetical protein [Pseudomonas aeruginosa]
 YP 006346633.1 hypothetical protein P5PA7_1248 [Pseudomonas aeruginosa PA7]
 WP 023107590.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023126867.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023112635.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 016254341.1 hypothetical protein [Pseudomonas aeruginosa]
 YP 788415.1 hypothetical protein PA14_03220 [Pseudomonas aeruginosa UCBPP-PA14]
 WP 023099073.1 hypothetical protein [Pseudomonas aeruginosa]
 YP 005978546.1 hypothetical protein NCGM2_0269 [Pseudomonas aeruginosa NCGM2_S1]
 WP 023100502.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023108107.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023089556.1 hypothetical protein [Pseudomonas aeruginosa]
 YP 005972848.1 hypothetical protein PAM18_0257 [Pseudomonas aeruginosa M18]
 WP 023102166.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023131883.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023121197.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023114770.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023085721.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023105751.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023115978.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023083885.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023091463.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 023086789.1 hypothetical protein [Pseudomonas aeruginosa]
 YP 002437866.1 hypothetical protein PLES_02581 [Pseudomonas aeruginosa LESB58]
 WP 019725711.1 type IV secretion protein Rhs [Pseudomonas aeruginosa]
 WP 023113866.1 hypothetical protein [Pseudomonas aeruginosa]
 WP 003112697.1 hypothetical protein, partial [Pseudomonas aeruginosa]
 PA0262 PA0262
 NP 248953.1 hypothetical protein PA0262 [Pseudomonas aeruginosa PAO1]

Figure S6: VgrG2b-like proteins phylogeny. Conserved features of VgrG2b-like proteins (A). A sequence similarity search restricted to the last 259 residues of VgrG2b (residues 761 to 1019) retrieved 580 proteins (Step 1). Then a position specific model made from the multiple alignments of all matches (Hidden Markov Model) revealed several conserved motifs among these proteins (Step 2). The VgrG2b organization is presented with a colour code for the domains: PF05954 (orange), PF04717 (purple), PF13296 (pink), the putative Zn protease domain (yellow). WebLogo sequence alignment of VgrG2b homologues identified by the *in silico* screen. The VgrG2b domains are underlined with the same colour code. **A maximum likelihood rooted phylogenetic tree of VgrG2b homologues (B and C).** To construct a phylogenetic tree, the list of homologues has been condensed by keeping proteins harboring a VgrG domain (PF05954, PF04717, PFG13296) and the VgrG2b C-terminal extension (step 3). The phylogenetic tree was calculated using RAXML version 7.7.9. Scale bar represents the number of estimated changes per position for a unit of branch length.