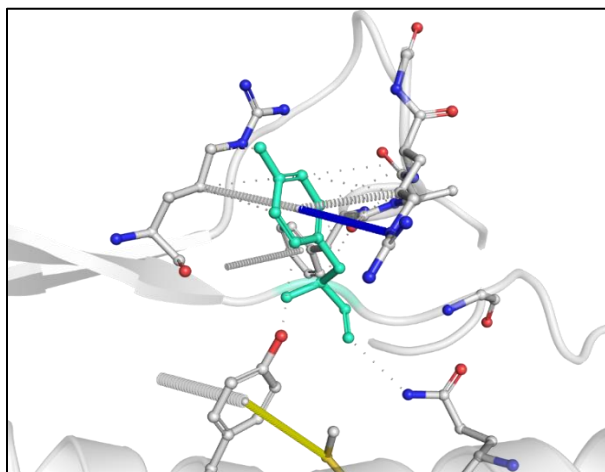
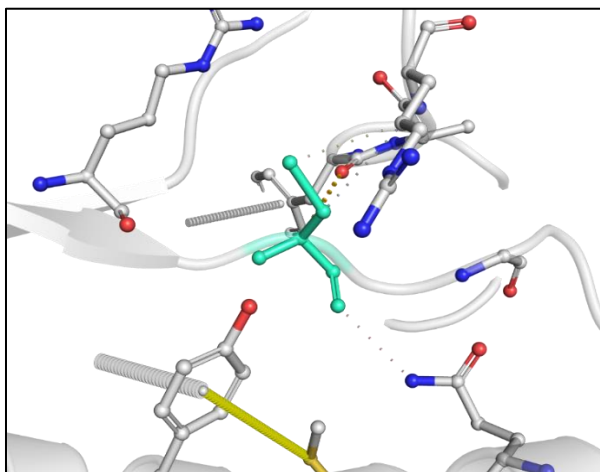


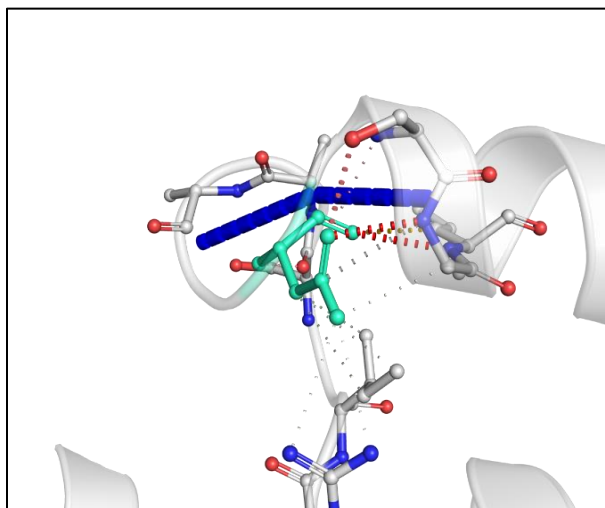
(A) (i)



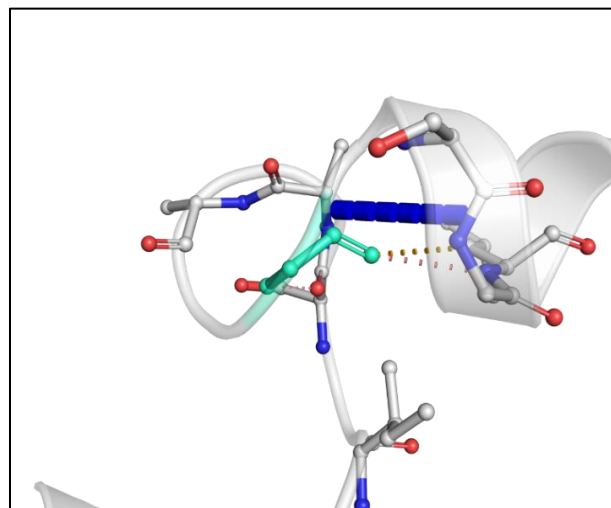
(ii)



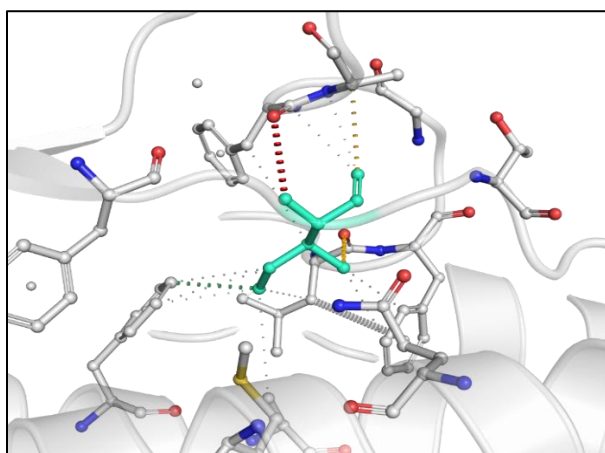
(B) (iii)



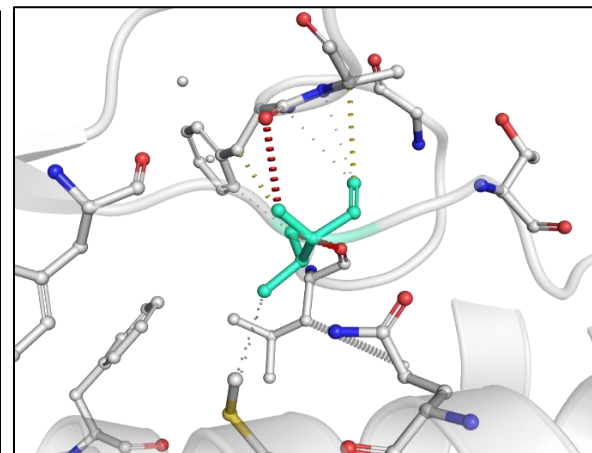
(iv)



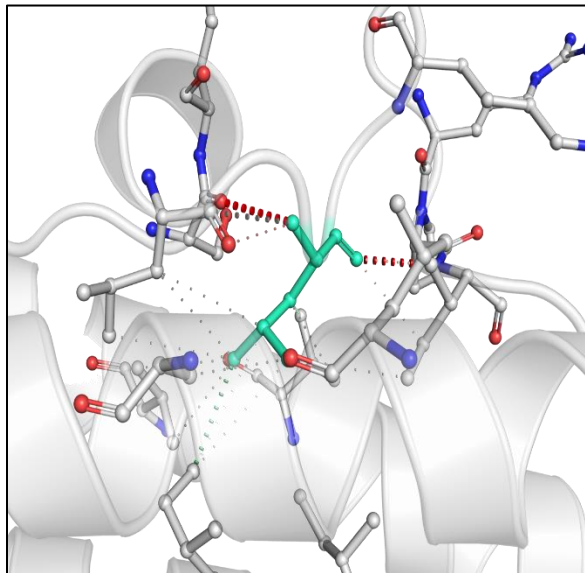
(v)



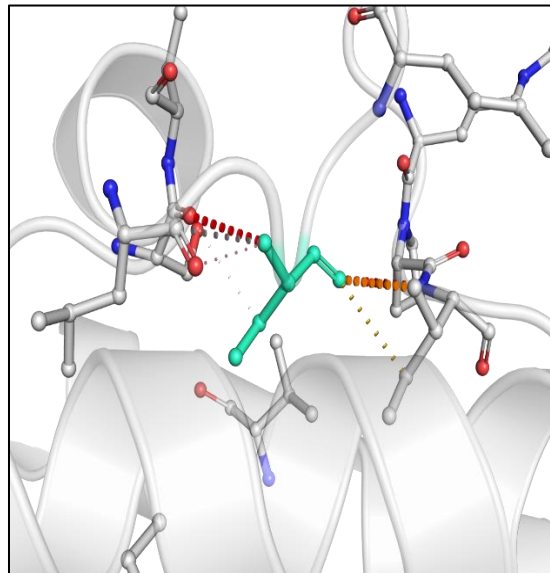
(vi)



(C) (vii)



(viii)



Additional File 4: Figure S2: Predicted protein stability for the 3 variants compared to the template FlaB protein of *L. interrogans* (computed using the tool available at DynaMut server (<https://biosig.lab.uq.edu.au/dynamut/>)). Predicted interatomic interactions at AA positions with substitutions in mutant FlaB protein compared to FlaB protein of *L. interrogans* (wild type) in patient samples, (A) Y164C wild type (i), 13SL215:WKR44734 (ii), (B) D42G wild type (iii), 13ML092:WKR38874 (iv), and I165T wild type (v), 13ML092:WKR38874 (vi), and (C) L175S wild type (vii), 13ML506:WKR38873 (viii).

Bond Type	Color
Hydrogen bonds	Red
Water mediated hydrogen bonds	Red
Weak hydrogen bonds	Orange
Water mediated weak hydrogen bonds	Orange
Halogen bonds	Blue
Ionic interactions	Yellow
Metal complex interactions	Purple
Aromatic contacts	Cyan
Hydrophobic contacts	Dark Green
Carbonyl contacts	Pink