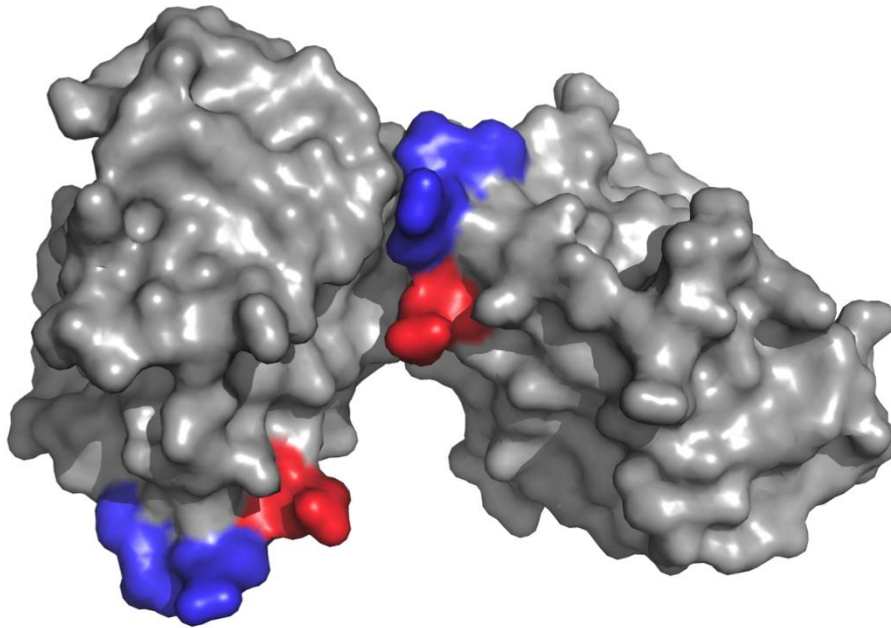
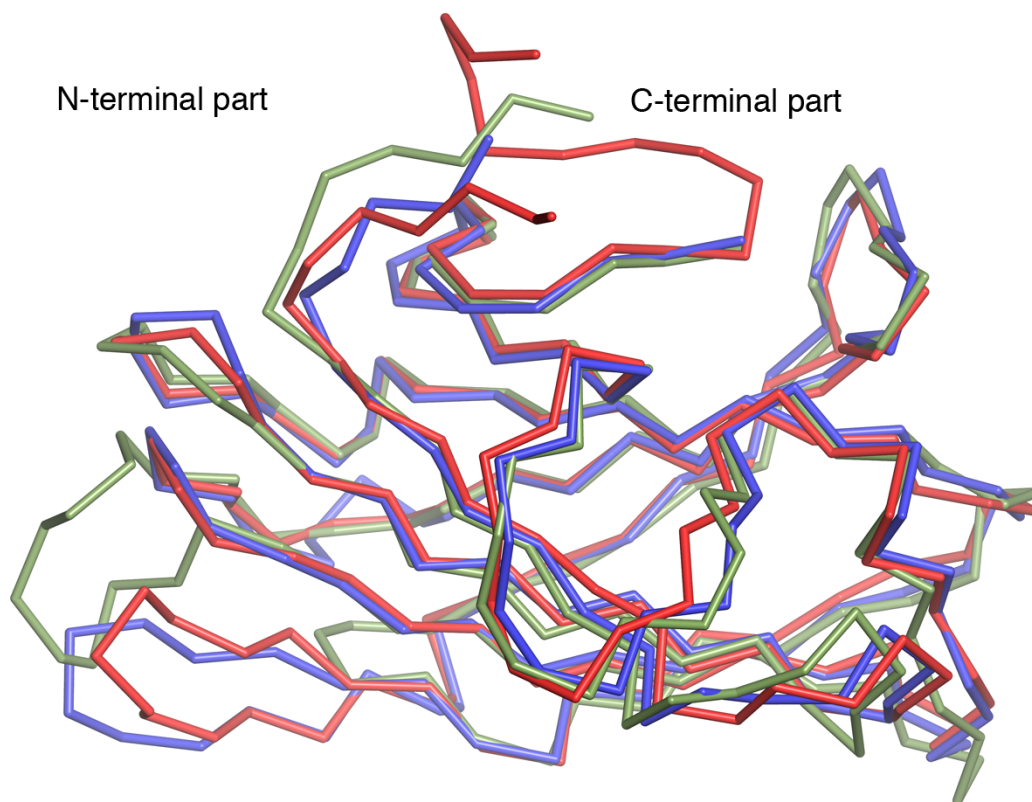


Supplementary Material

As discussed in the paper, the C and N termini in the current structure are near to each other in space (Supplementary Fig 1) and form a stem-like structure. We are able to rule out the influence of crystal packing contacts on the termini conformation. At the C terminus, the main chain changes direction after Pro200 and folds back onto β -strand 9 due to its interaction with residue Thr130 and loop 5/6 and not due to interactions at the packing interface. The direction change at the N terminus takes place at residue Asn46. The $C\alpha$ position of this residue is 8.4Å from the $C\alpha$ of Asn161 (from the symmetry related molecule) and could feasibly be affected by its proximity; superposition with related CBM's (PDB codes 1G43, 2XBT; (Shimon *et al.*, 2000, Yaniv *et al.*, 2011)) however, shows that the trace of the main chain is consistent with these other structures (Supplementary Fig 2).



Supplementary Figure S1. Contact between two symmetry related molecules of CBM3a-L. N-terminus is colored in blue color, C-terminus in red.



Supplementary Figure S2. Superposition of the CBM3a-L structure with 2XBT and 1G43 in red, green and blue respectively. The three structures pack in different space groups ($P4_132$, $I4_122$, $P6_522$) and make different crystal-packing interactions. The presence (in CBM3a-l and 2XBT) or absence (in 1G43) of crystal-packing contacts in the N-termini region does not appear to affect the fold of the chain; all the N-termini of all 3 of these CBM's are folded back towards the protein globule.

References

- Shimon, L. J., Pages, S., Belaich, A., Belaich, J. P., Bayer, E. A., Lamed, R., Shoham, Y. & Frolov, F. (2000). *Acta Cryst. D* **56**, 1560-1568.
- Yaniv, O., Shimon, L. J., Bayer, E. A., Lamed, R. & Frolov, F. (2011). *Acta Cryst. D* **67**, 506-515.