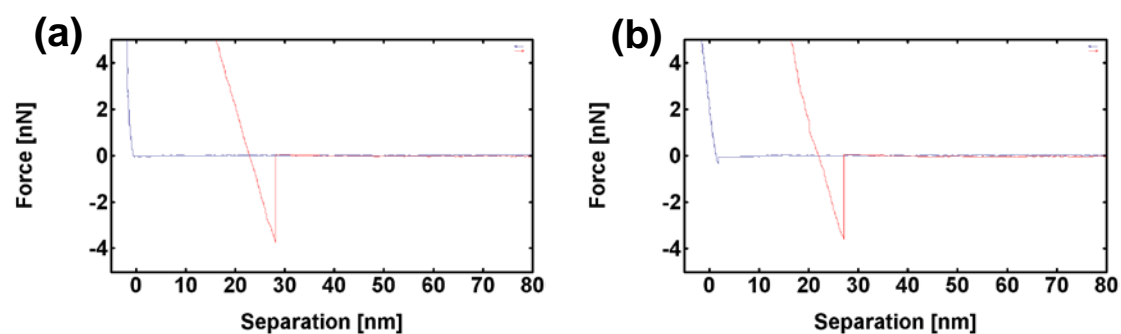


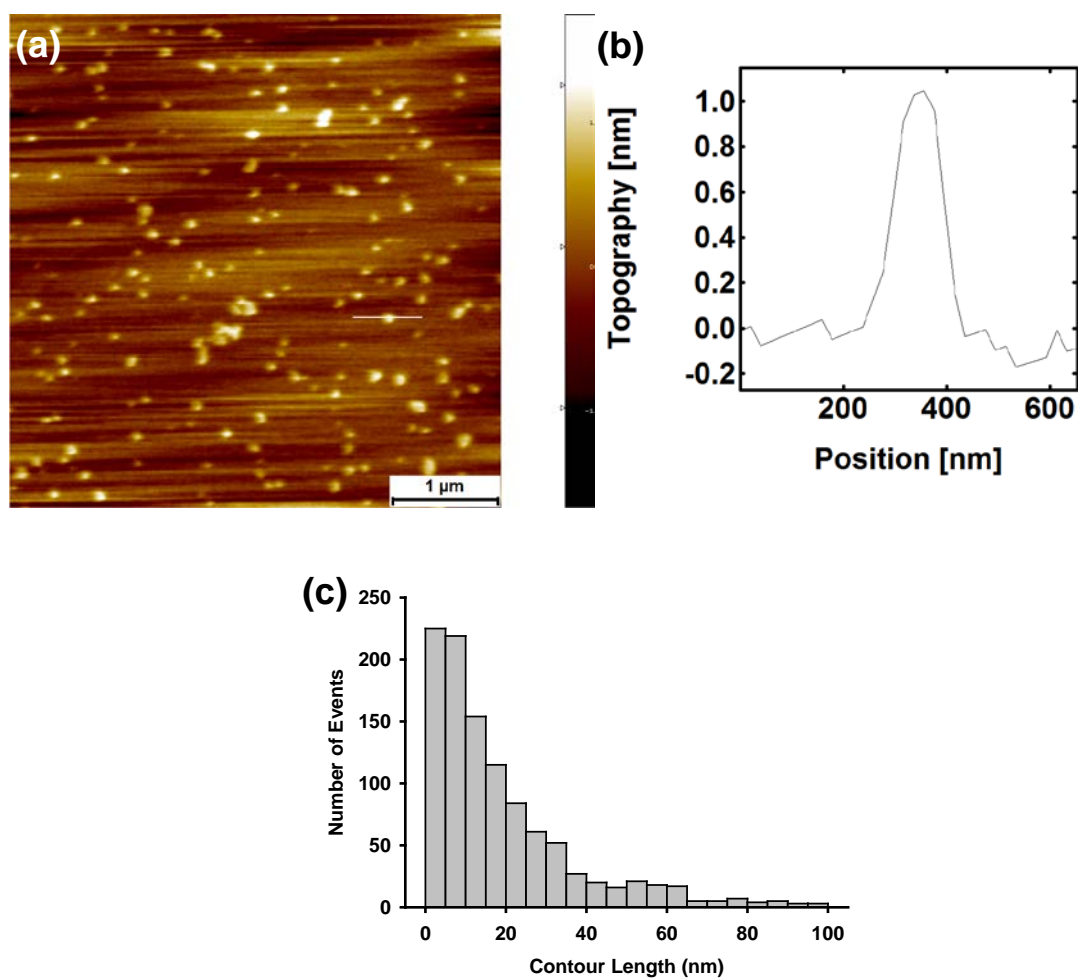
## Self assembly and pore formation of HIV GP160 revealed at molecular resolution

Lynn Donlon and Daniel Frankel

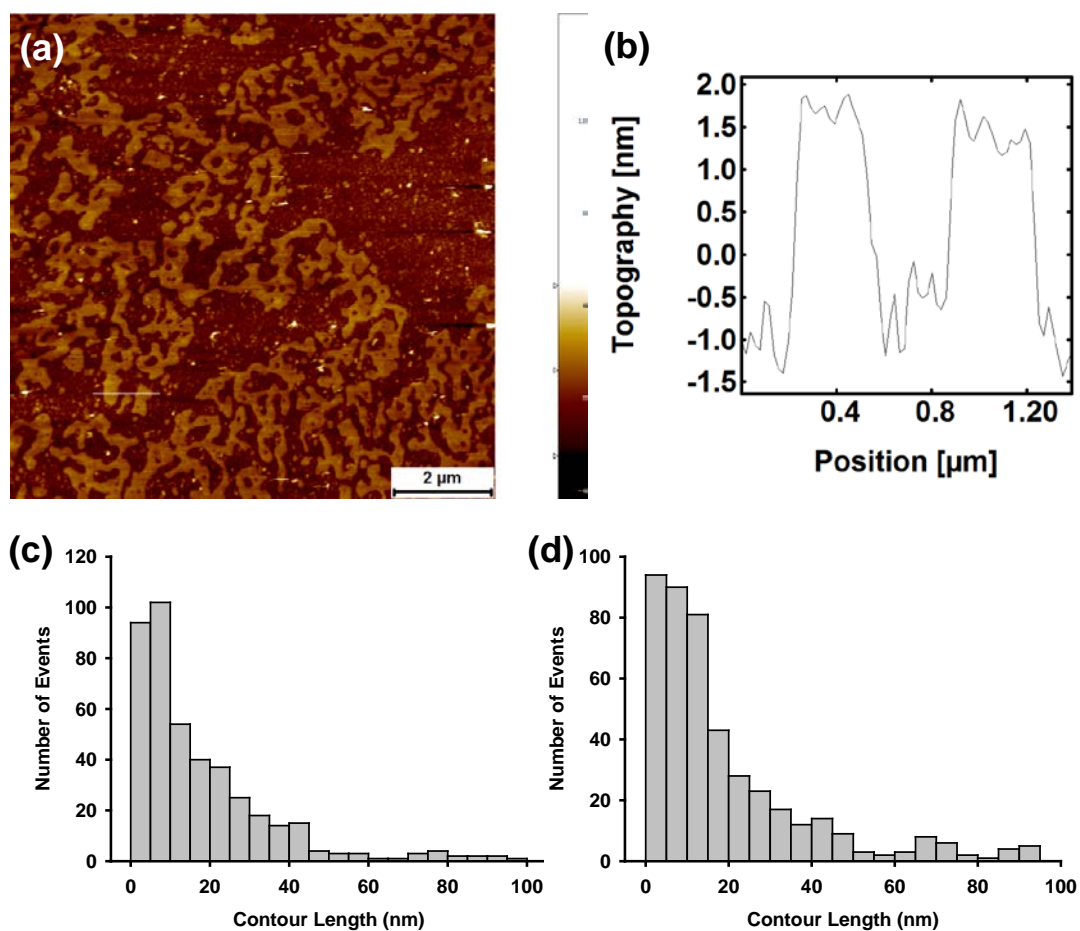
### Supplementary Material



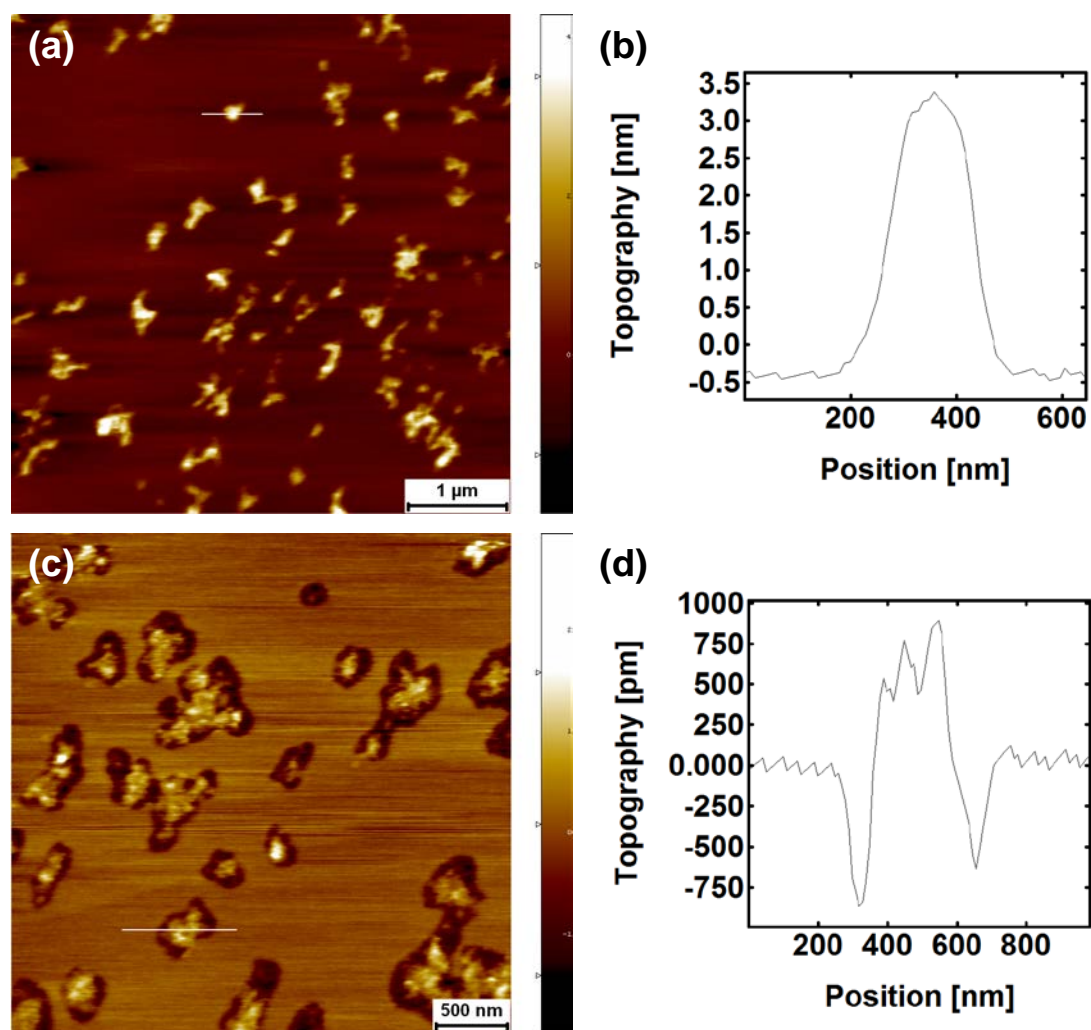
**Fig 1.** Force spectra take on mica prior (a) and subsequent (b) to unfolding of GP160. Both spectra show the expected adhesion event but no evidence of protein unfolding, conforming that GP160 remains on the surface and does not contaminate the tip.



**Fig 2.** Atomic microscopy image of GP160 adsorbed on mica showing individual protein molecules and molecular trimers (a). Representative height profile for one of the single molecules; protein features are  $\sim 1$  nm high (b). Distribution of contour lengths for forced unfolding of GP160 on mica (c).



**Fig 3.** Atomic force microscopy image of GP160 adsorbed on mica showing self assembled protein ‘terraces’ (a) and associated line profile showing the height of these terraces (b). Distribution of contour lengths for protein unfolding on (c) and off (d) the terraces.



**Fig 4.** Atomic force microscopy images showing GP160 adsorbed on top of a DOPC bilayer, initially (a) and after 18 hours (c). Representative height profiles, (b) and (d) respectively confirm that the protein gradually ‘sinks’ into the underlying bilayer.

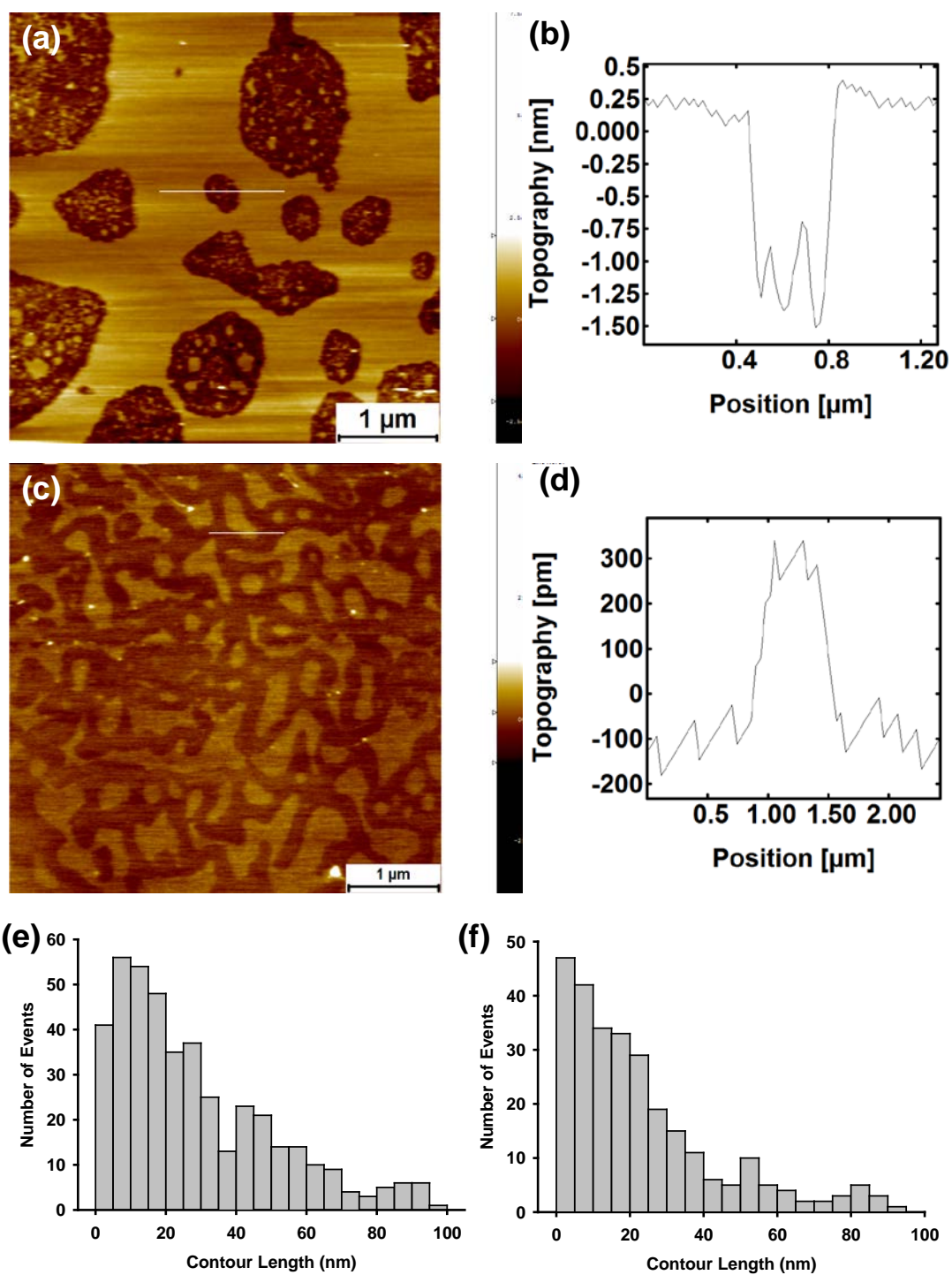


Fig 5. Atomic force microscopy images showing different modes of self assembly for GP160 reconstituted into a DOPC bilayer (a and c), with corresponding line profiles illustrating the depth of 'holes' (b) and height of partially embedded, self assembled protein features (d). Distribution of contour lengths for protein unfolding on terraces shown in image a, (e) and in holes shown in image a, (f).