Supplementary information

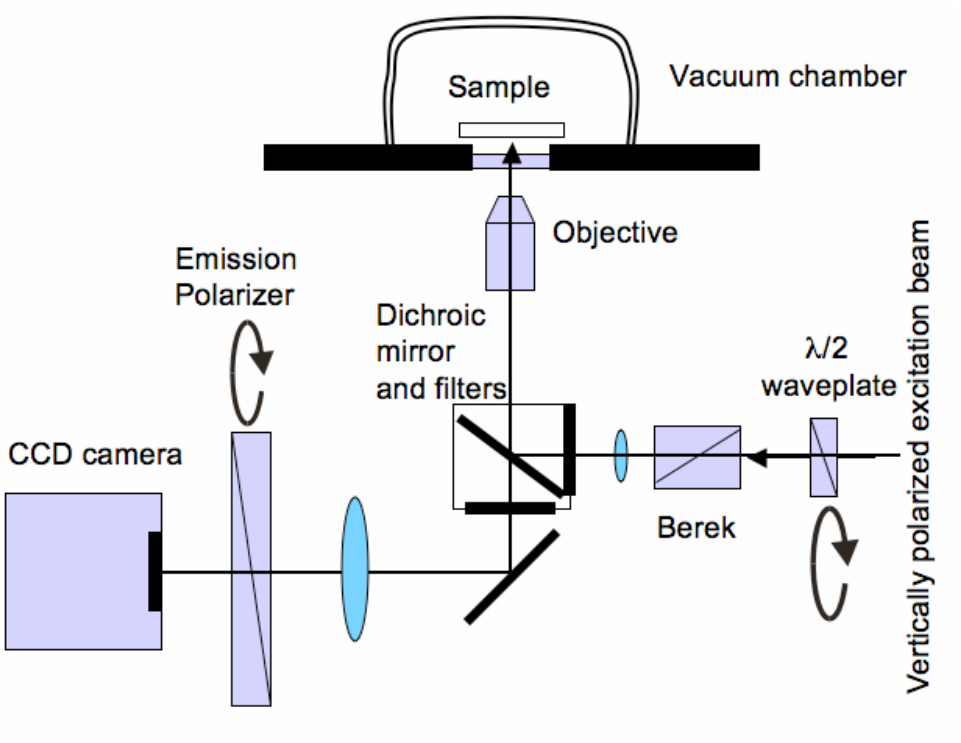

Fig.S1 Wide-field fluorescence polarization microscope. Linear polarization of the excitation laser beam is continuously rotated by turning λ/2 plate. The fluorescence image is detected through a continuously rotated emission polarizer placed in front of the CCD camera. The Berek polarization compensator is used to maintain the linear polarization of the excitation light at the sample plane after it passed the dichroic mirror and filters.

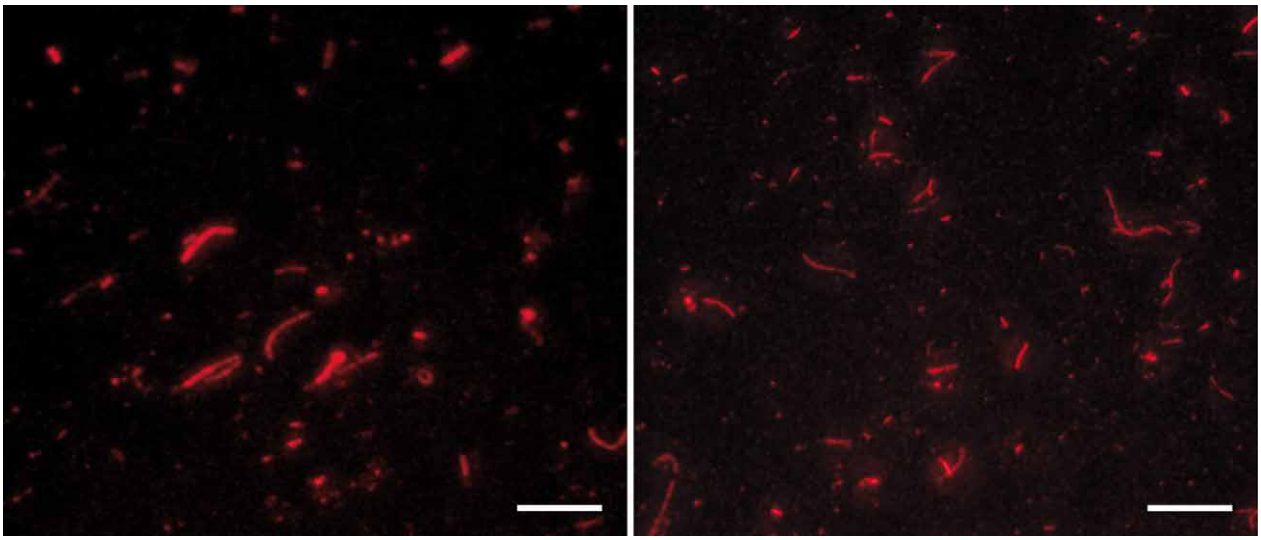

Fig.S2 The same sample as the AFM micrograph in figure 3. Fluorescence micrographs of partially aligned insulin fibrils decorated with APFO-12 at Conc 1. Scale bar represents 15 μm.

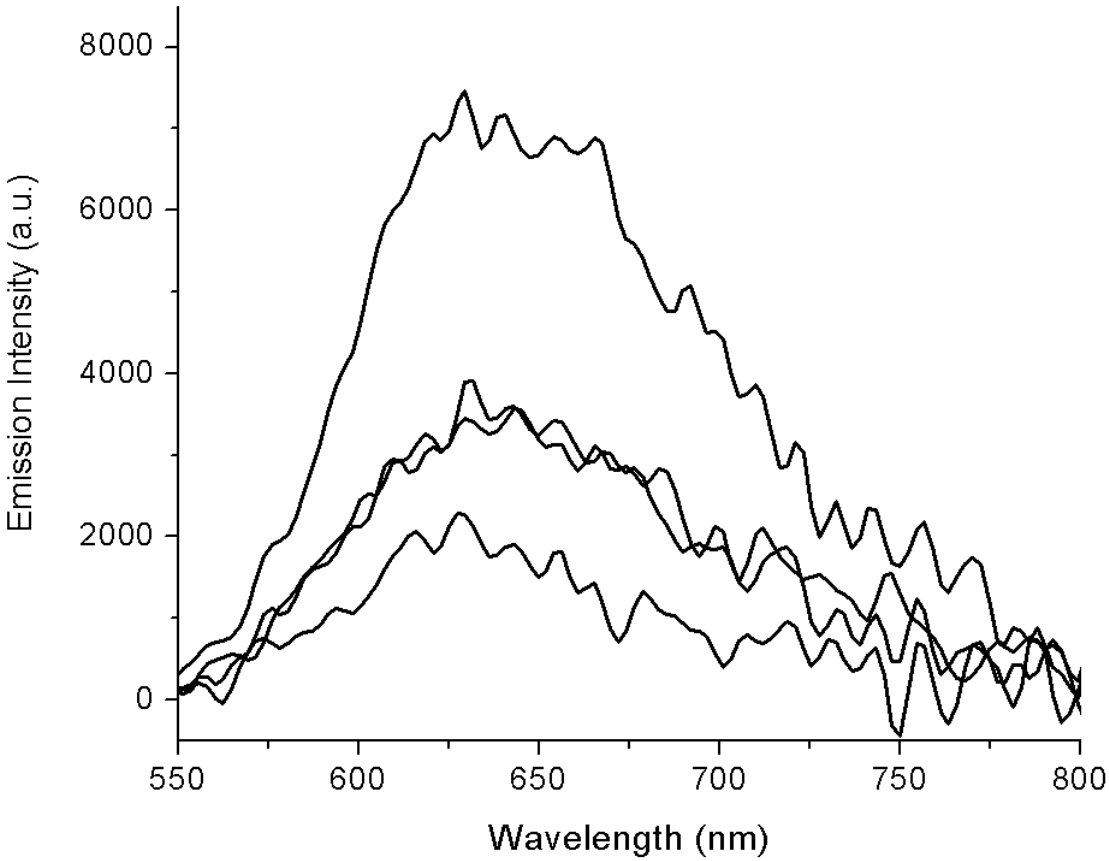

Fig.S3 Emission spectra of APFO-12 on fibrils at Conc 1.

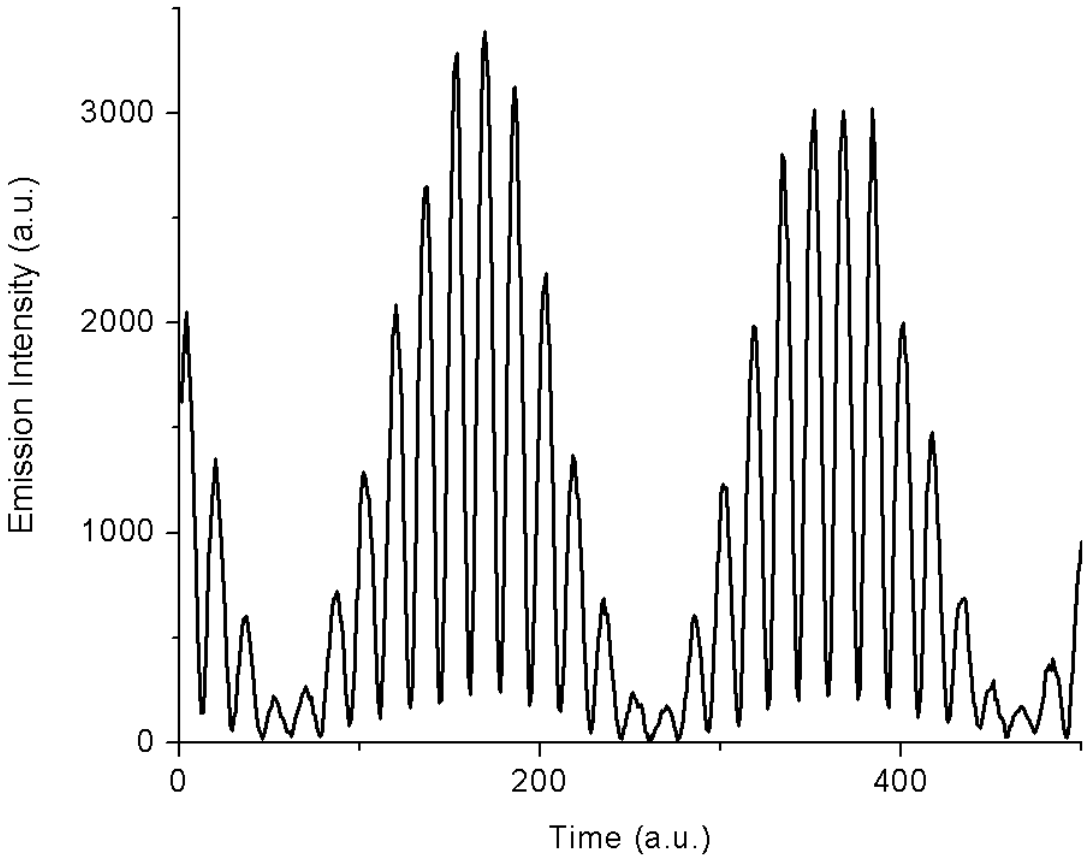

Fig.S4 Emission intensity from a part of an insulin fibril decorated with APFO-12 recorded with rotating polarizer in excitation and emission beams. The two modulation frequencies were 0.15 Hz and 0.012 Hz for excitation and emission respectively.

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