Electronic Supplementary Material (ESI) for RSC Advances.

Sucrose Modulates Insulin Amyloid-Like Fibril Formation: Effect on The Aggregation Mechanism and Fibril Morphology

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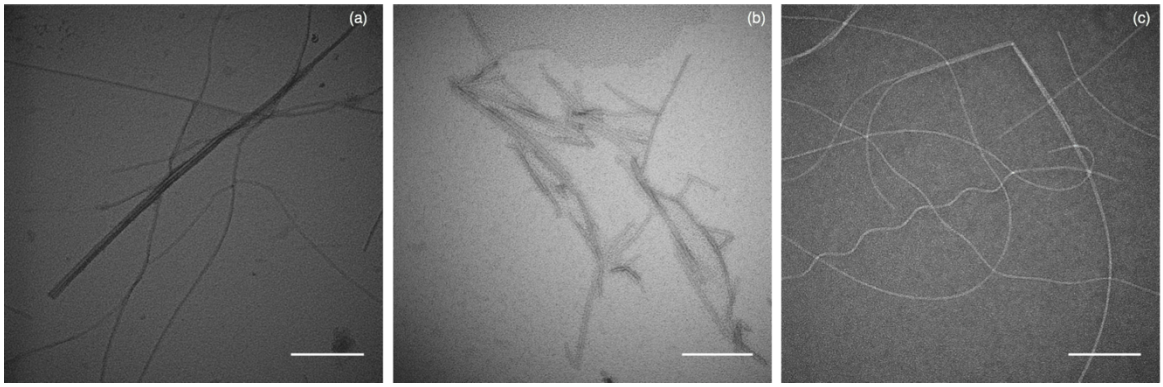

Figure S 1 TEM (a-c) images of insulin fibrils formed in presence of different amounts of sucrose: (a) 0% (scale bar 200 nm), (b) 20 % (scale bar 200 nm) and (c) 40% (scale bar 200 nm). The fibrils formed at the different amounts of sucrose have different morphologies. Without sucrose, the fibrils have a twisted helical morphology. At 20% sucrose they become straight parallel wires, and finally, at 40% sucrose, the fibrils have a ribbon-like macroscopic structure.

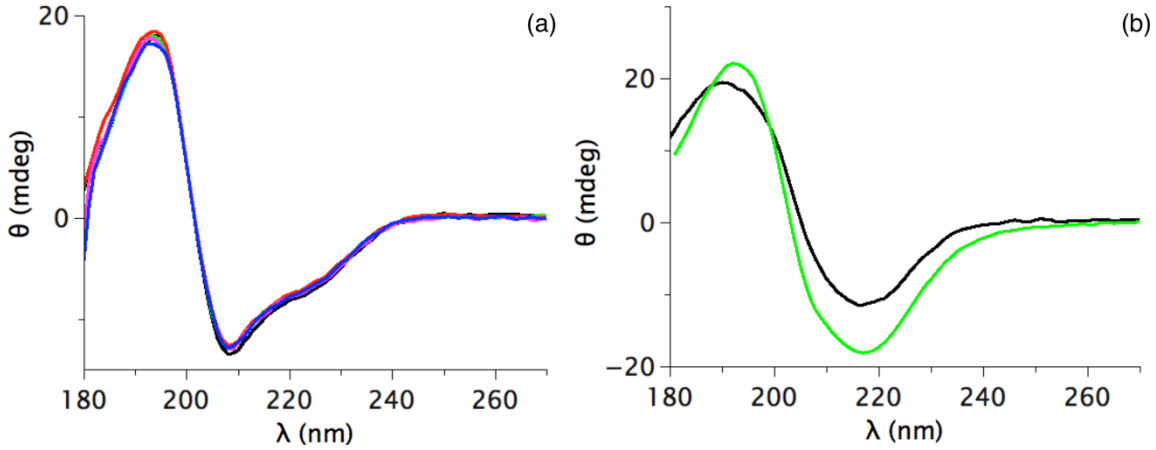

Figure S 2 SRCD spectra from human insulin at different timepoints of aggregation. (a) Initial monomeric state with different percentages of sucrose: 0% (black), 10% (green), 20% (red), 30% (pink) and 40% (blue). No difference can be detected between the different samples. (b) The final product of the aggregation of human insulin fibrillated with 0% (black) and 10% (green) sucrose. A typical β–sheets signal is recorded.