

## Supporting Information

### Insulin amyloid fibril formation reduction by tripeptide stereoisomers

Beatrice Rosetti,<sup>a</sup> Slavko Kralj,<sup>b,c</sup> Erica Scarel,<sup>a</sup> Simone Adorinni,<sup>a</sup> Barbara Rossi,<sup>d</sup> Attilio V. Vargiu,<sup>e</sup> Ana M. Garcia,<sup>\*f</sup> and Silvia Marchesan<sup>\*a</sup>

<sup>a</sup> Chem. Pharm. Sc. Dept., University of Trieste, 34127 Trieste, Italy.

<sup>b</sup> Materials Synthesis Dept., Jožef Stefan Institute, 1000 Ljubljana, Slovenia.

<sup>c</sup> Department of Pharmaceutical Technology, Faculty of Pharmacy, University of Ljubljana, 1000 Ljubljana, Slovenia.

<sup>d</sup> Elettra Sincrotrone Trieste Basovizza, 34149 Trieste, Italy

<sup>e</sup> Physics Department, University of Cagliari, 09042 Monserrato, Cagliari, Italy

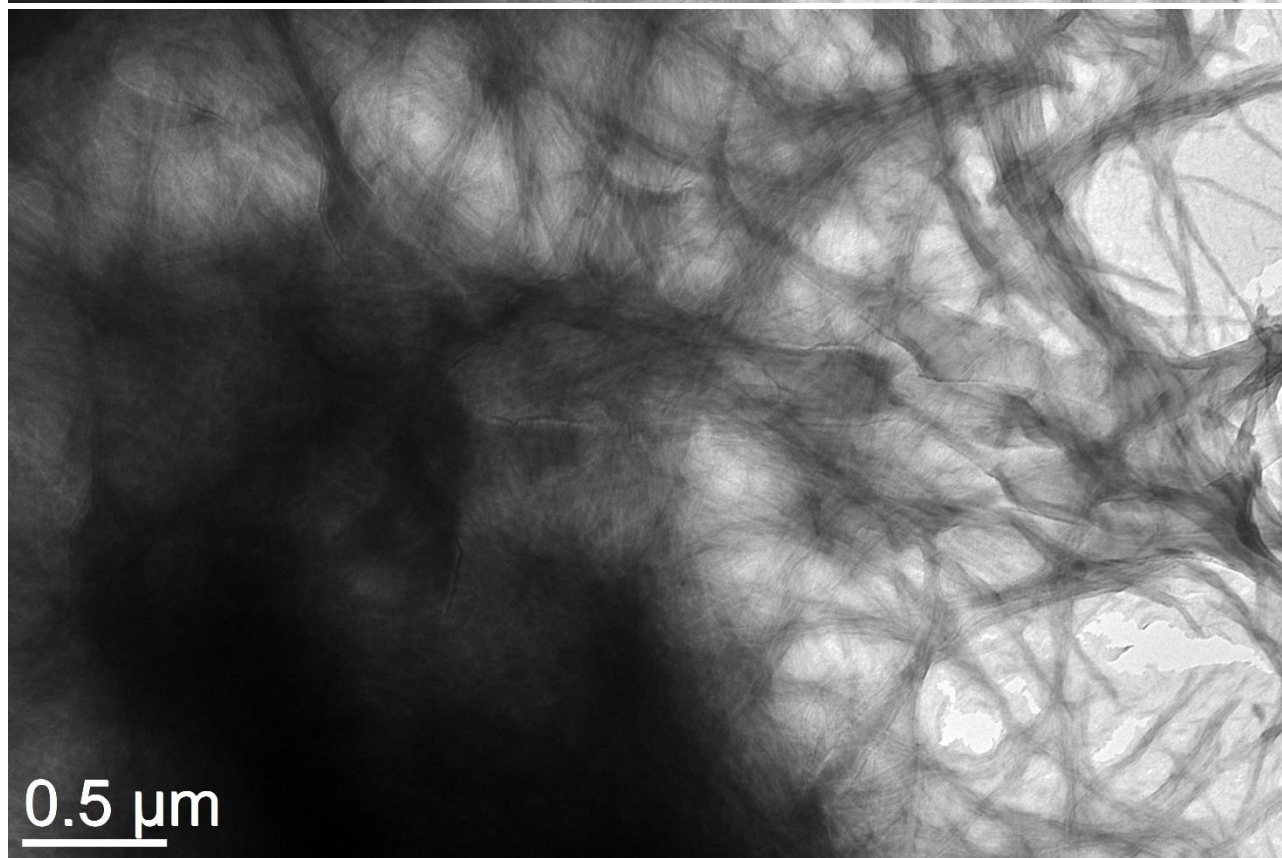
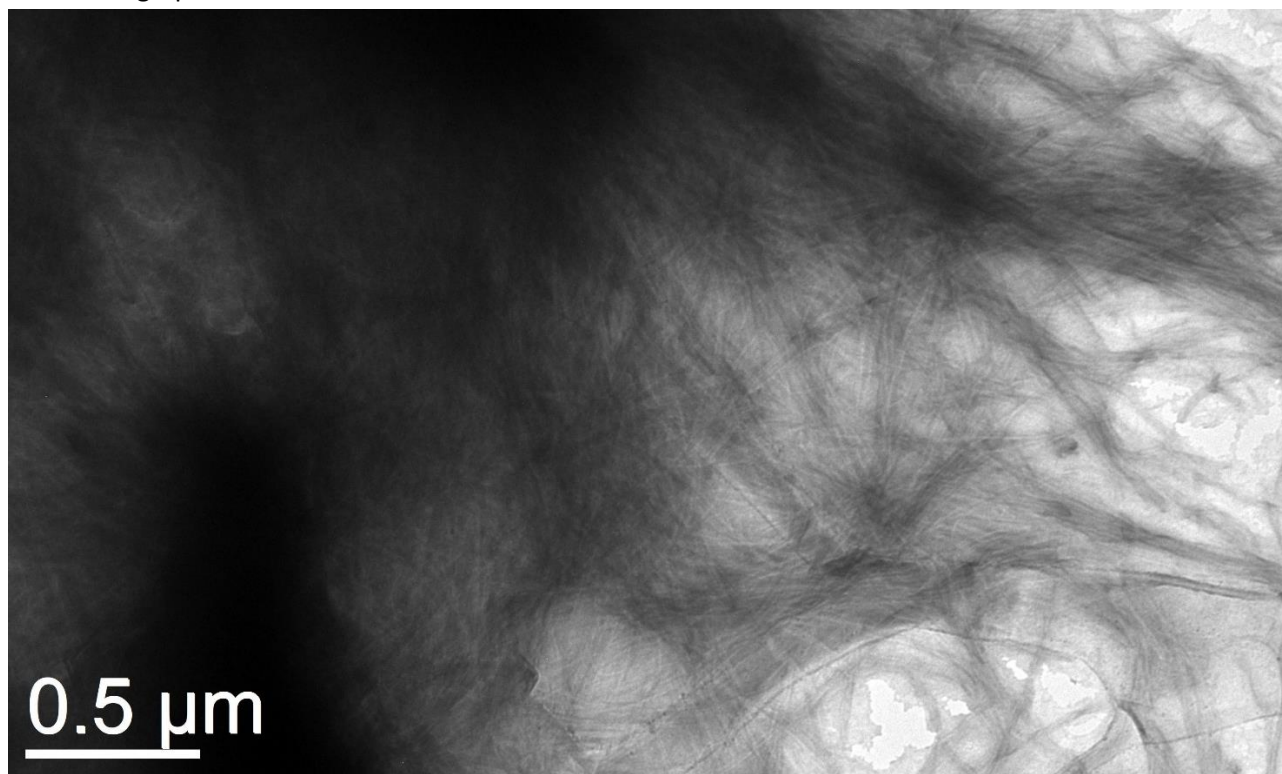
<sup>f</sup> Facultad de Ciencias y Tecnologías Químicas, Instituto Regional de Investigación Científica Aplicada (IRICA), Universidad de Castilla-La Mancha, 13071 Ciudad Real, Spain

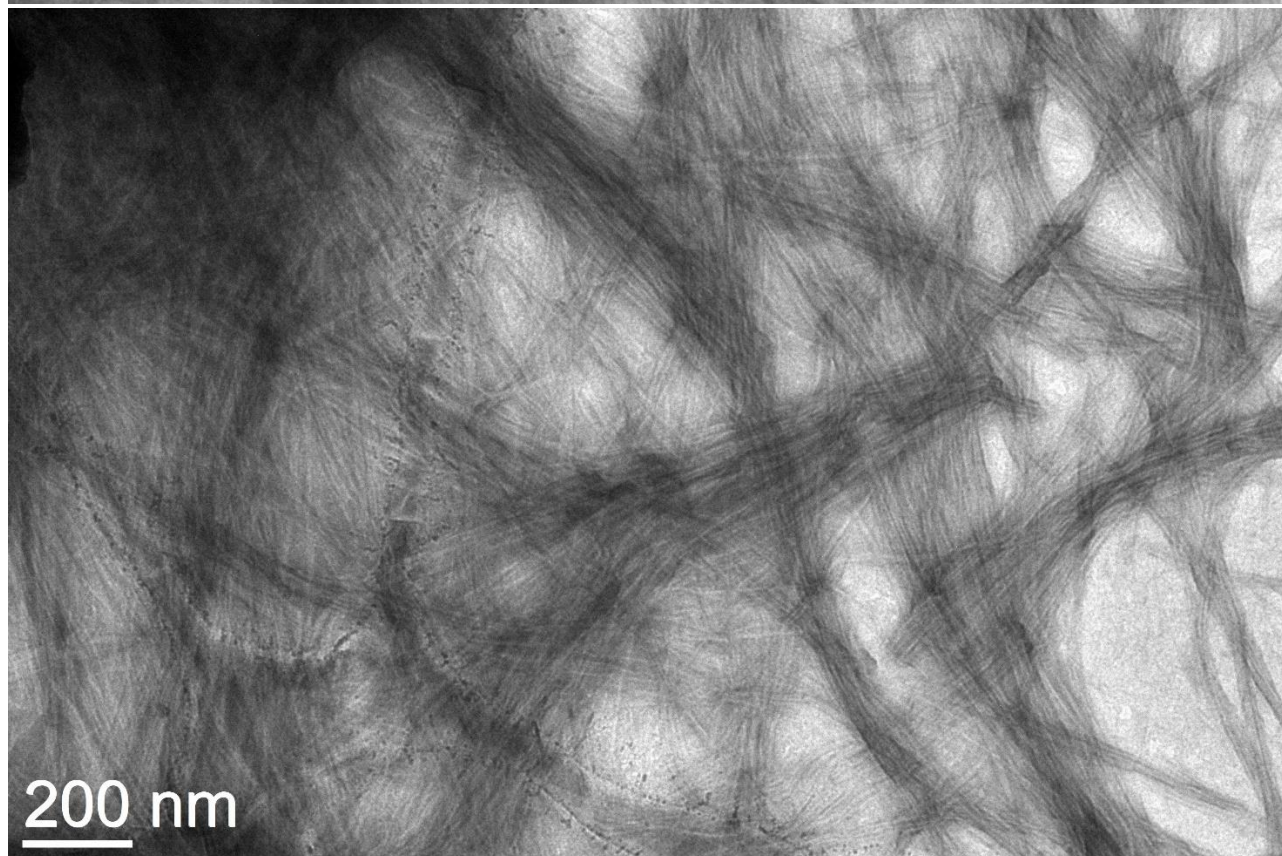
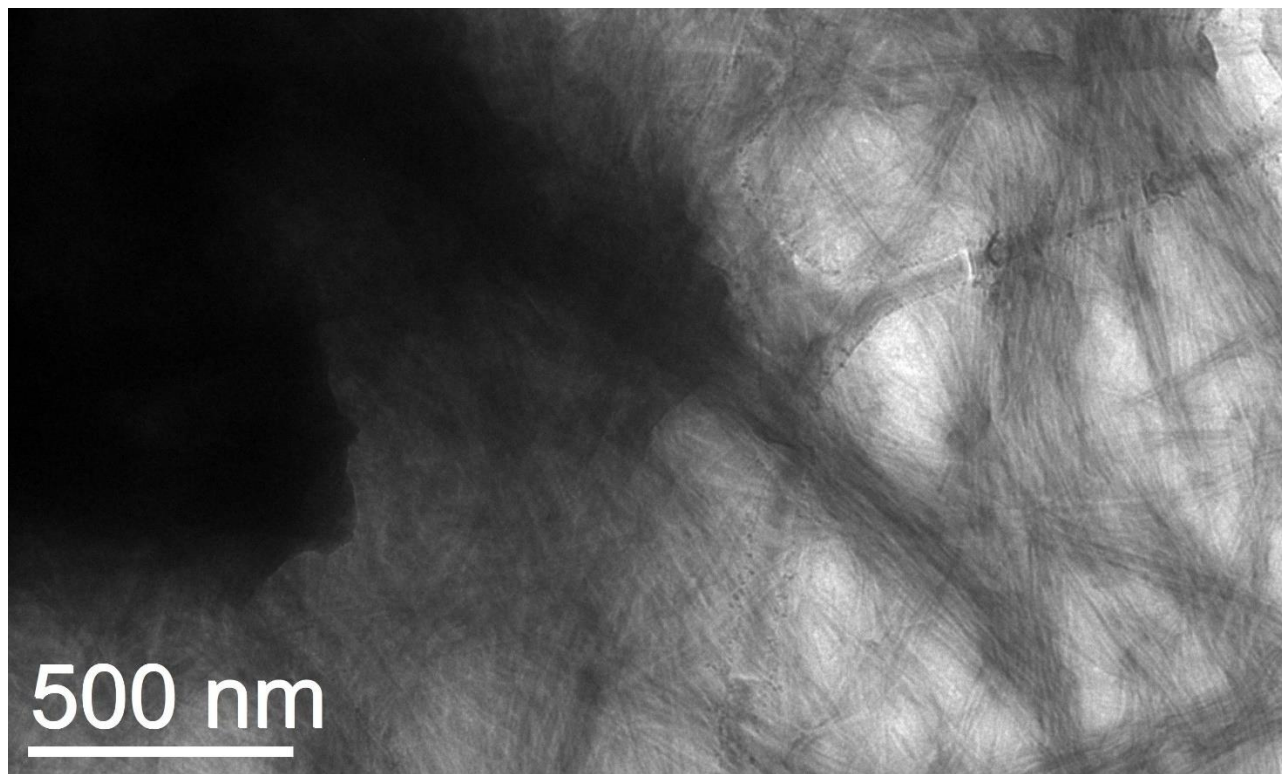
email: [anam.garcia@uclm.es](mailto:anam.garcia@uclm.es) & [smarchesan@units.it](mailto:smarchesan@units.it)

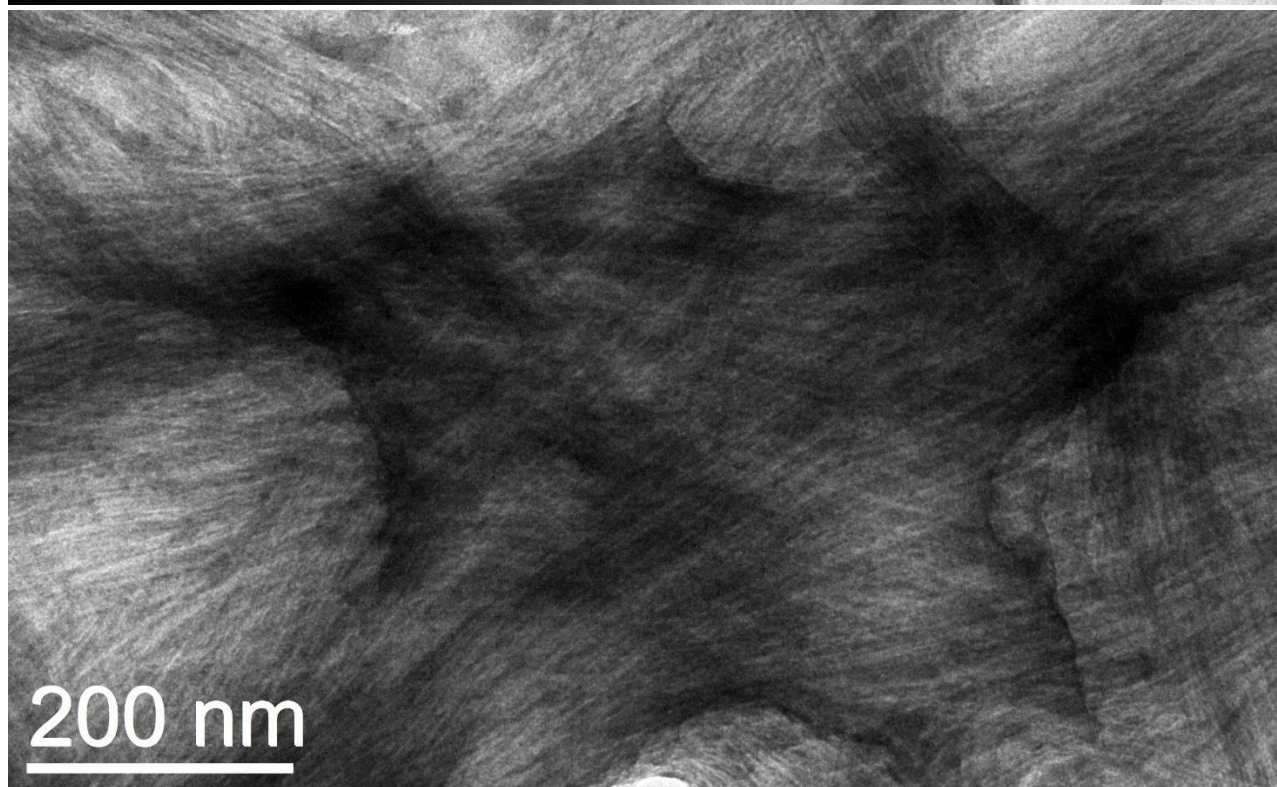
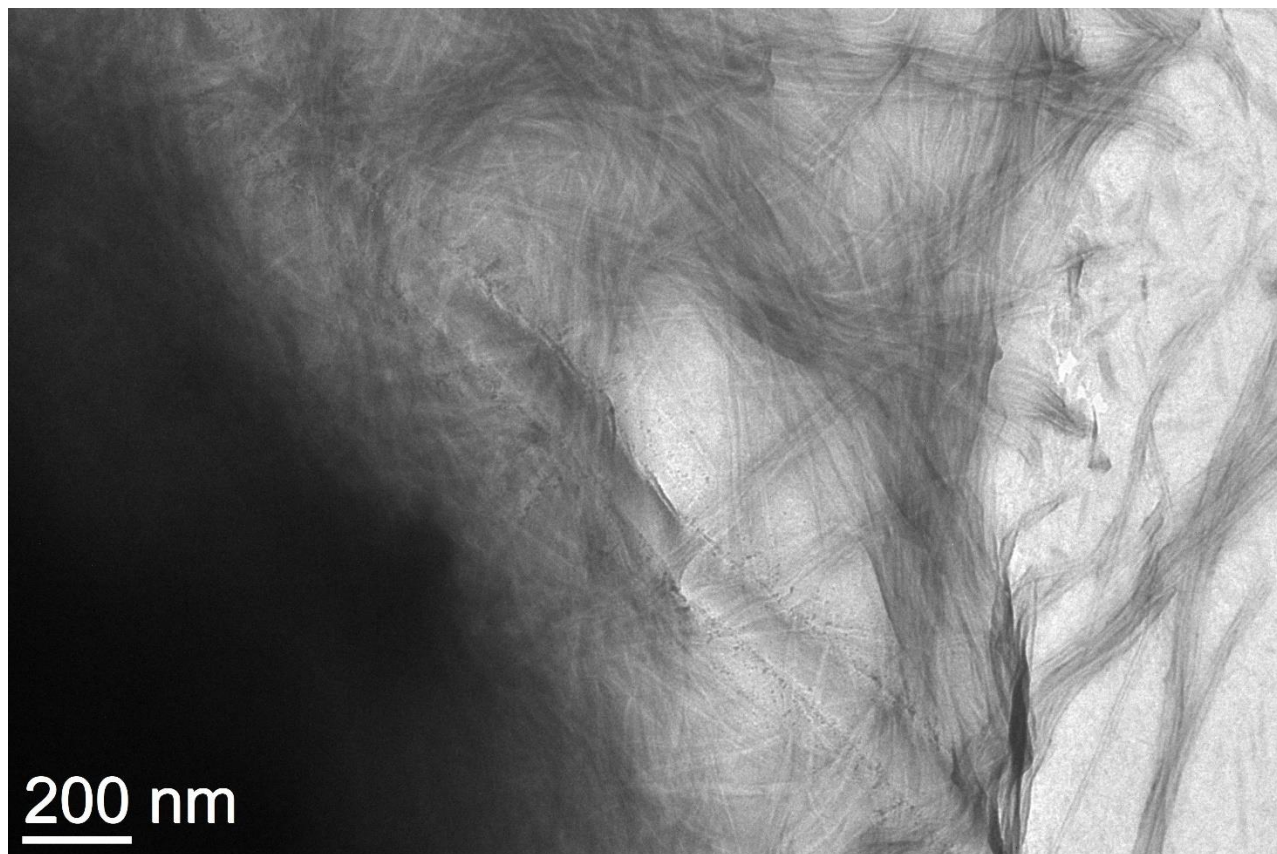
#### Table of Contents

<b>S1.</b>	TEM micrographs of insulin fibrils.....	2
<b>S2.</b>	TEM micrographs of insulin fibrils with PFF.....	5
<b>S3.</b>	TEM micrographs of insulin fibrils with pFf.....	8
<b>S4.</b>	TEM micrographs of insulin fibrils with PFF .....	11
<b>S5.</b>	TEM micrographs of the three tripeptides PFF, pFf and PFF.....	14
<b>S6.</b>	CD spectra of the tripeptides PFF, pFf and PFF.....	15
<b>S7.</b>	DSC data for PFF alone.....	16
<b>S8.</b>	UVRR spectra.....	17
<b>S9.</b>	MD all-atom simulations.....	18

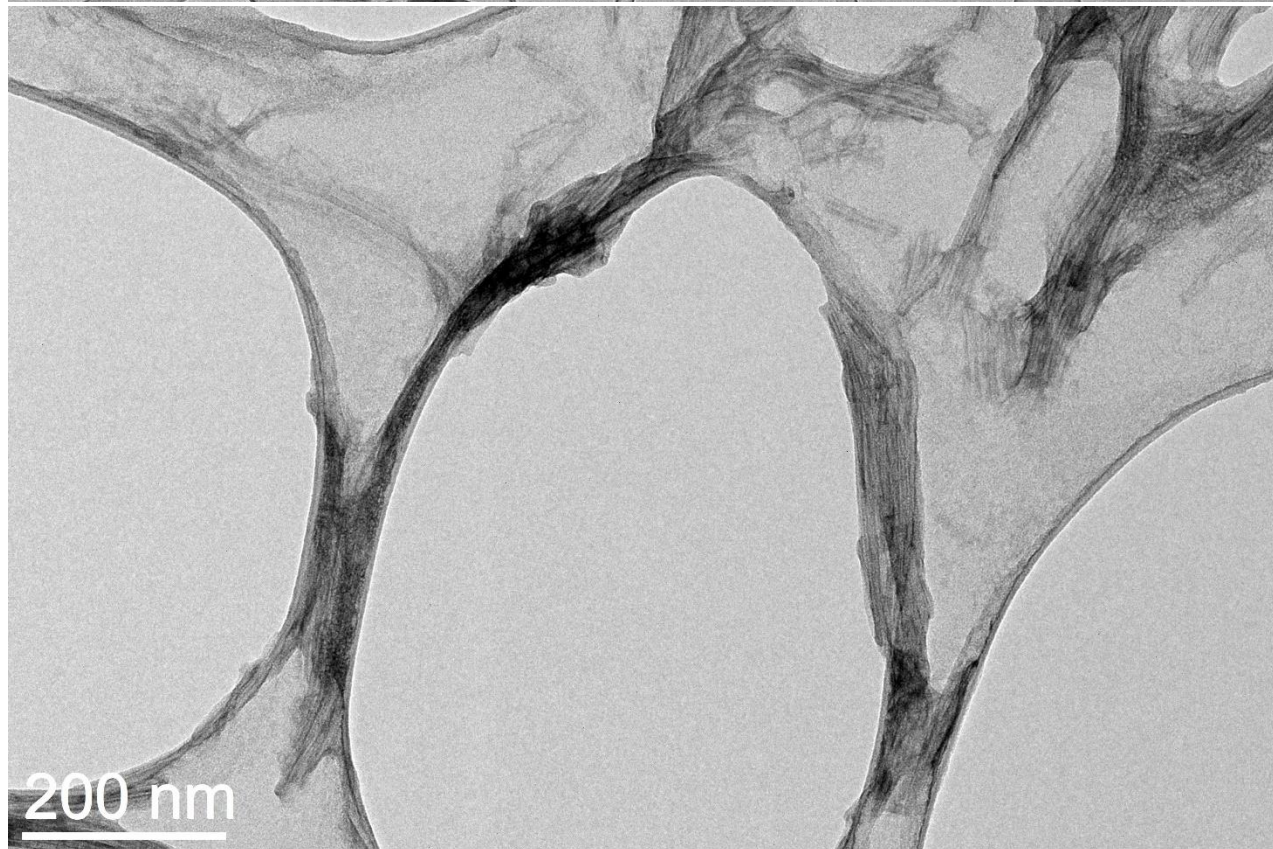
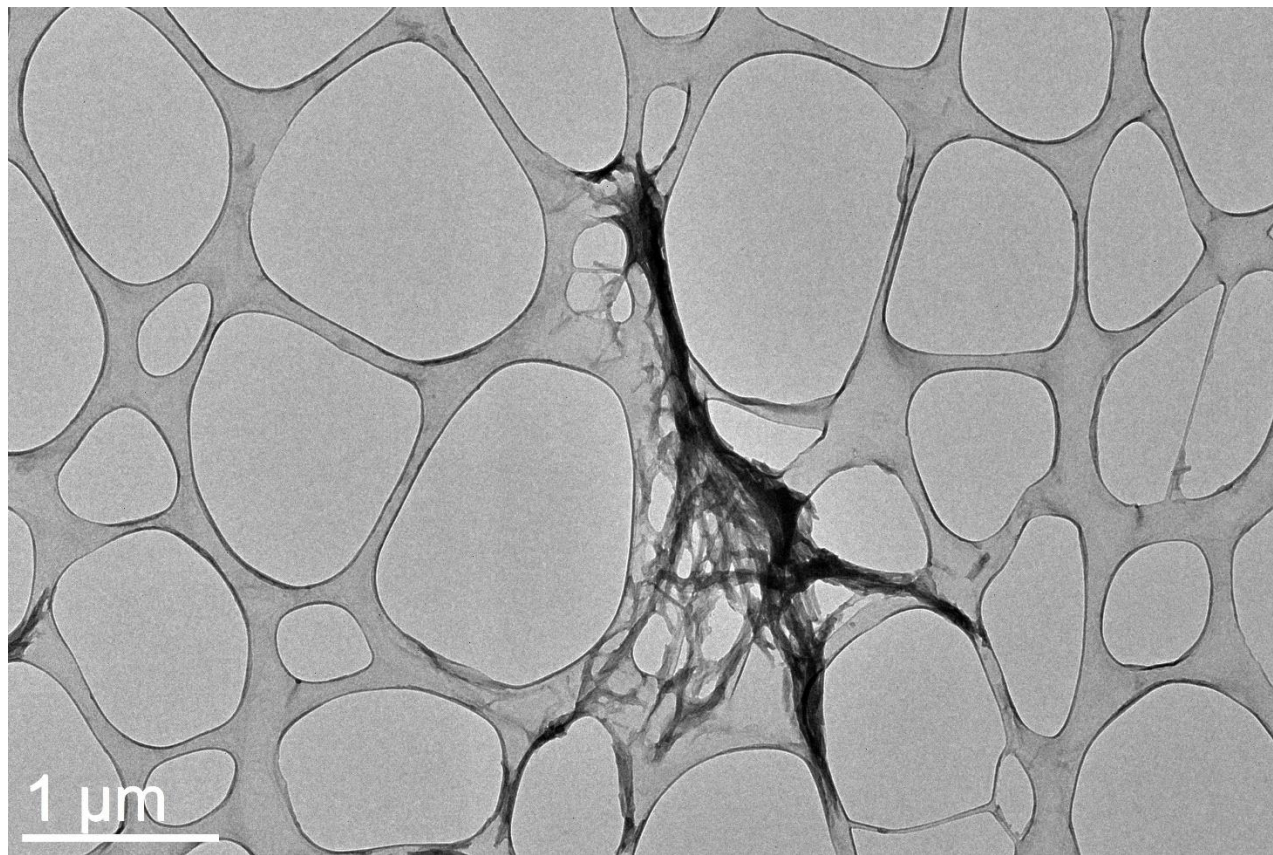
S1. TEM micrographs of insulin fibrils

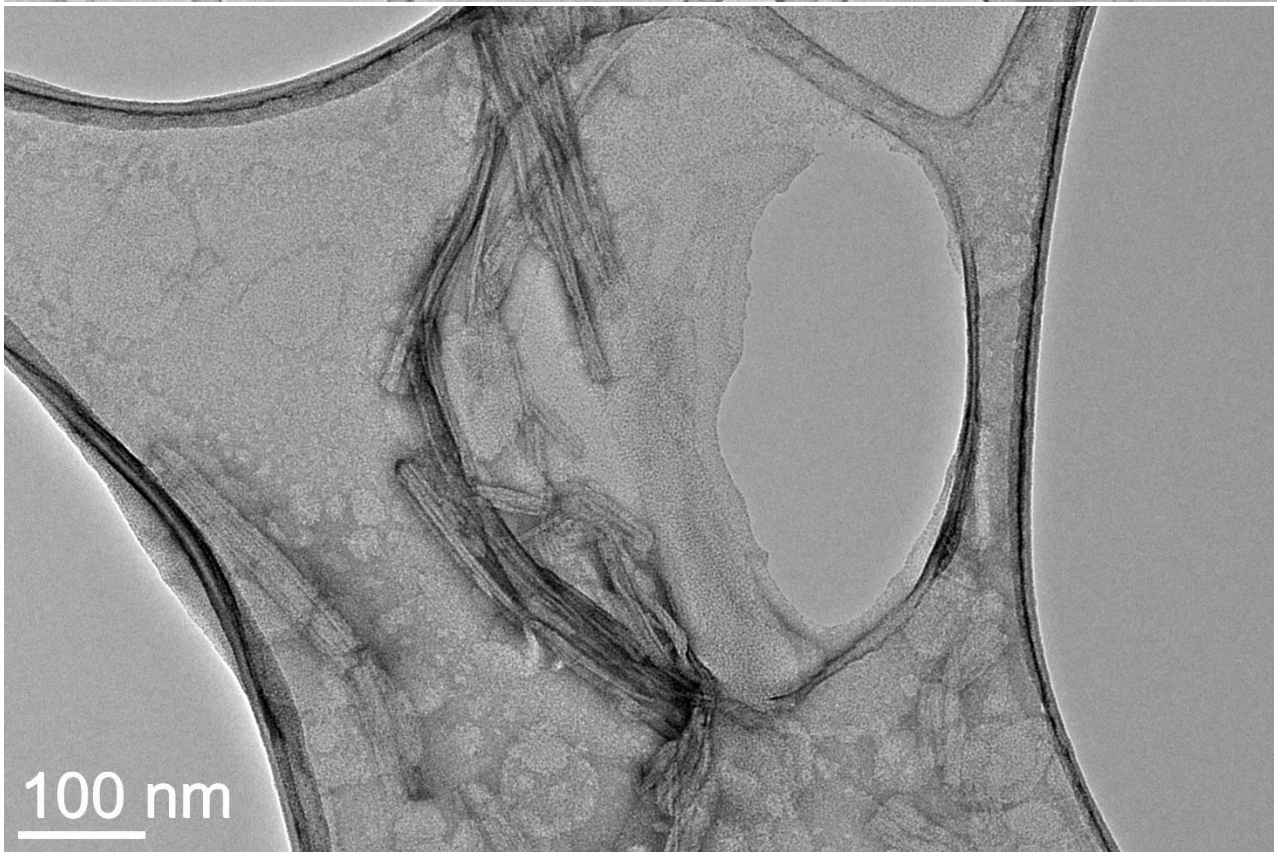
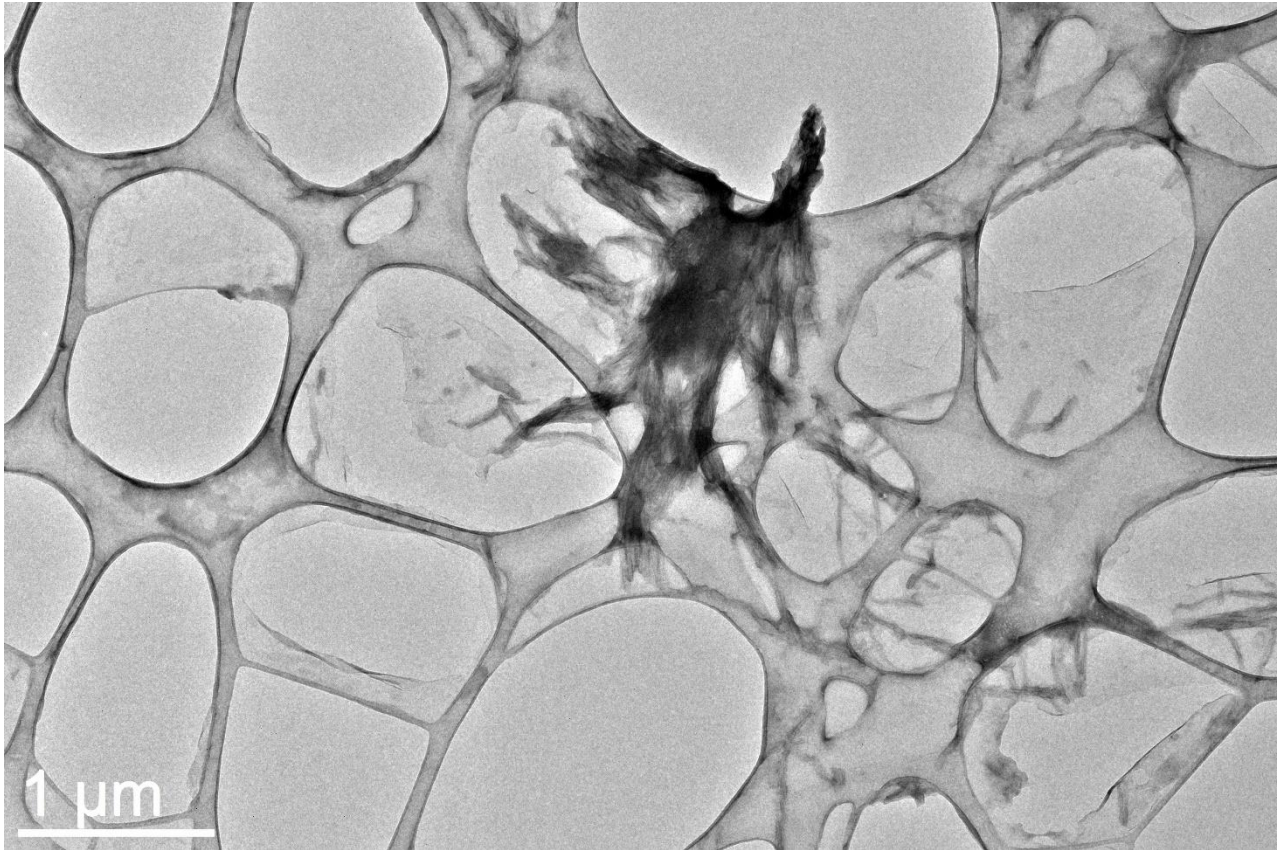


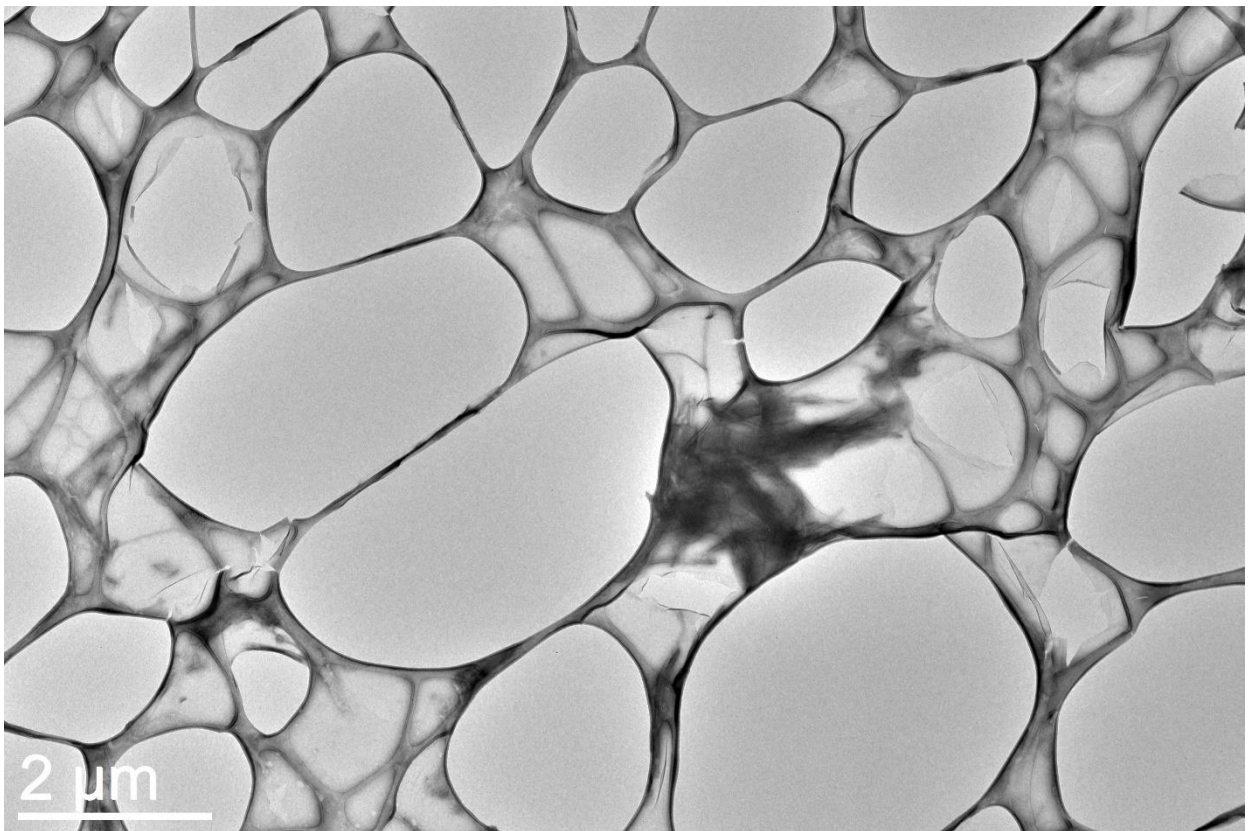
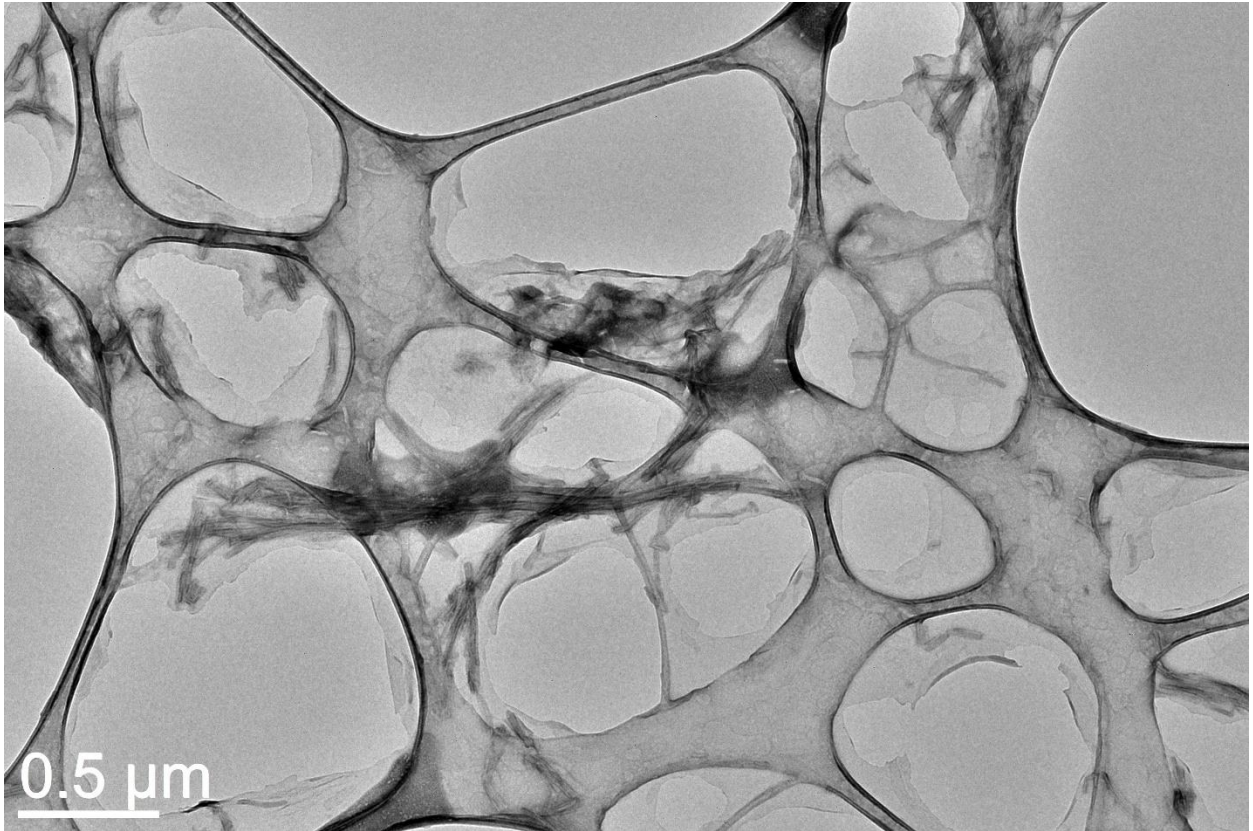




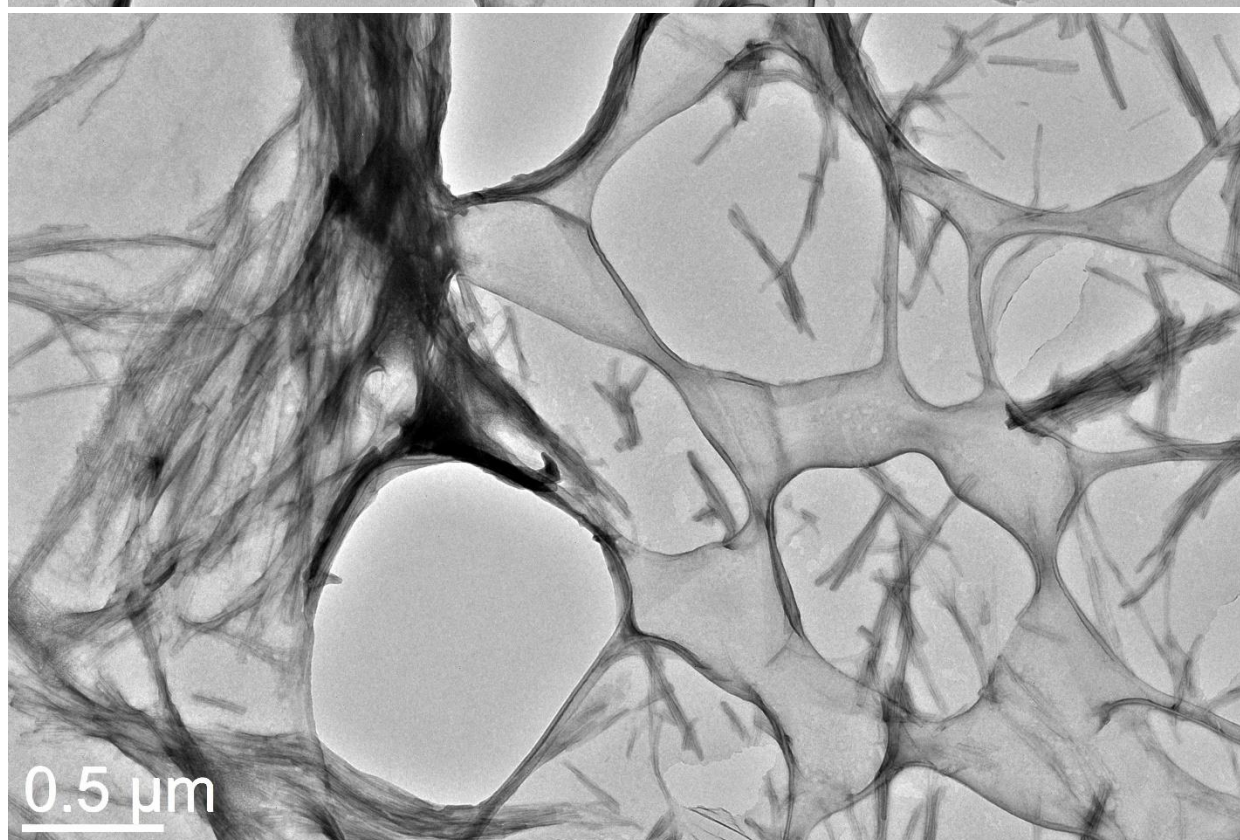
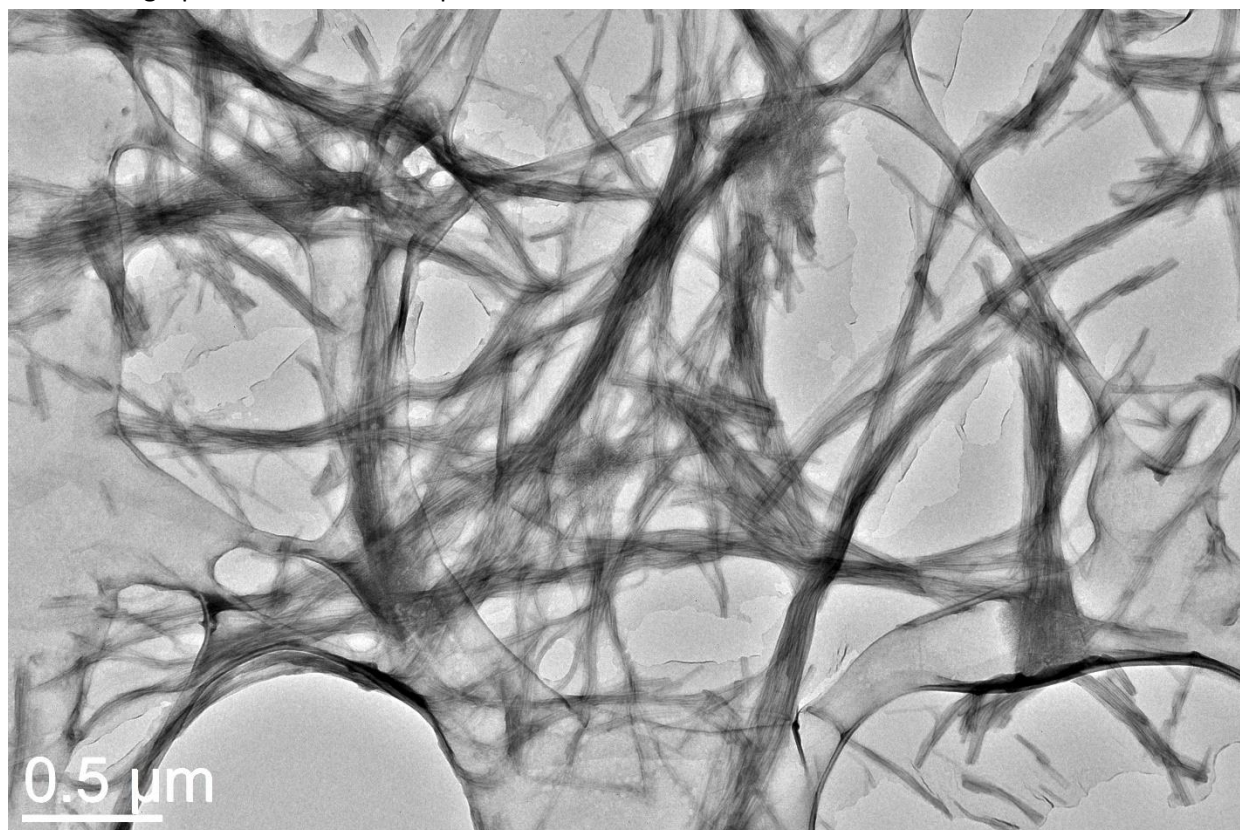
S2. TEM micrographs of insulin fibrils + PFF



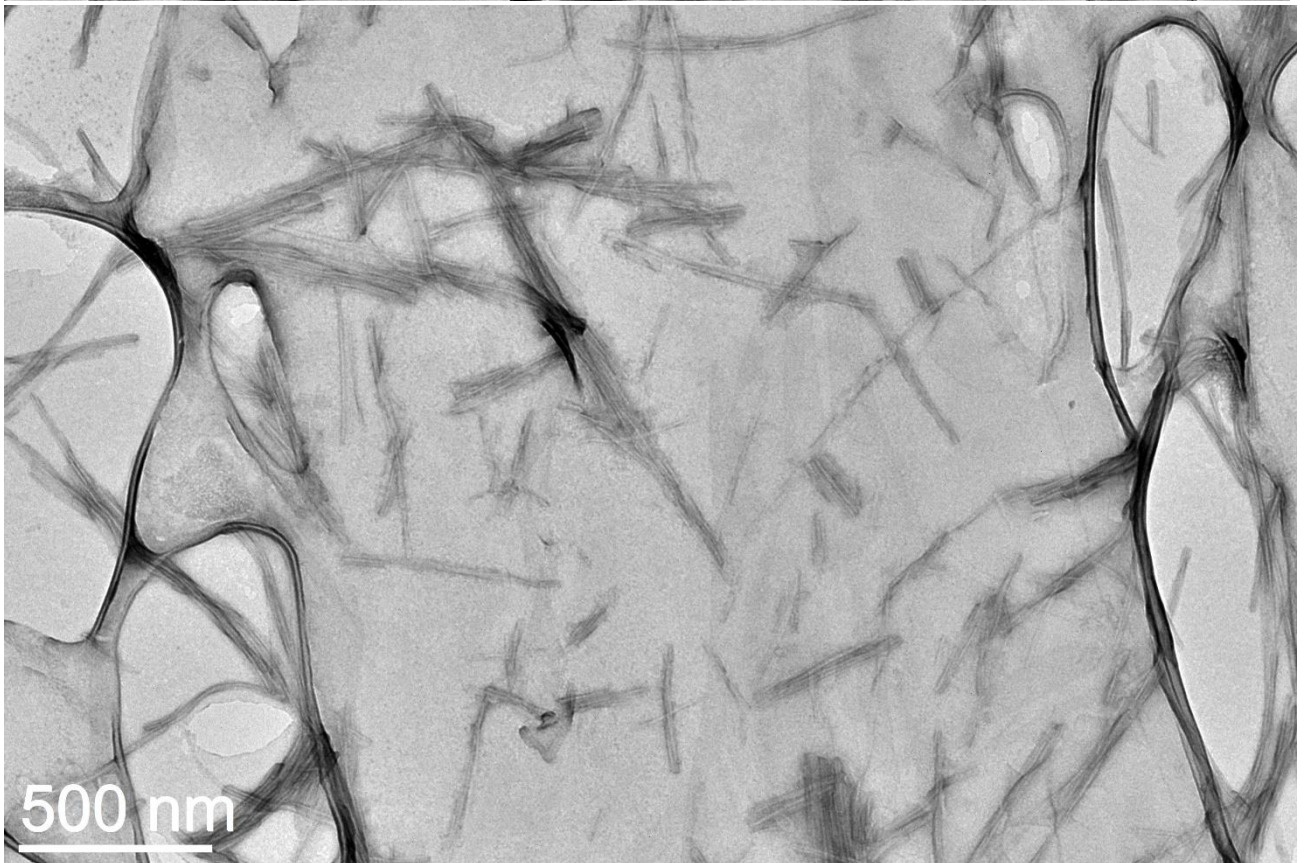
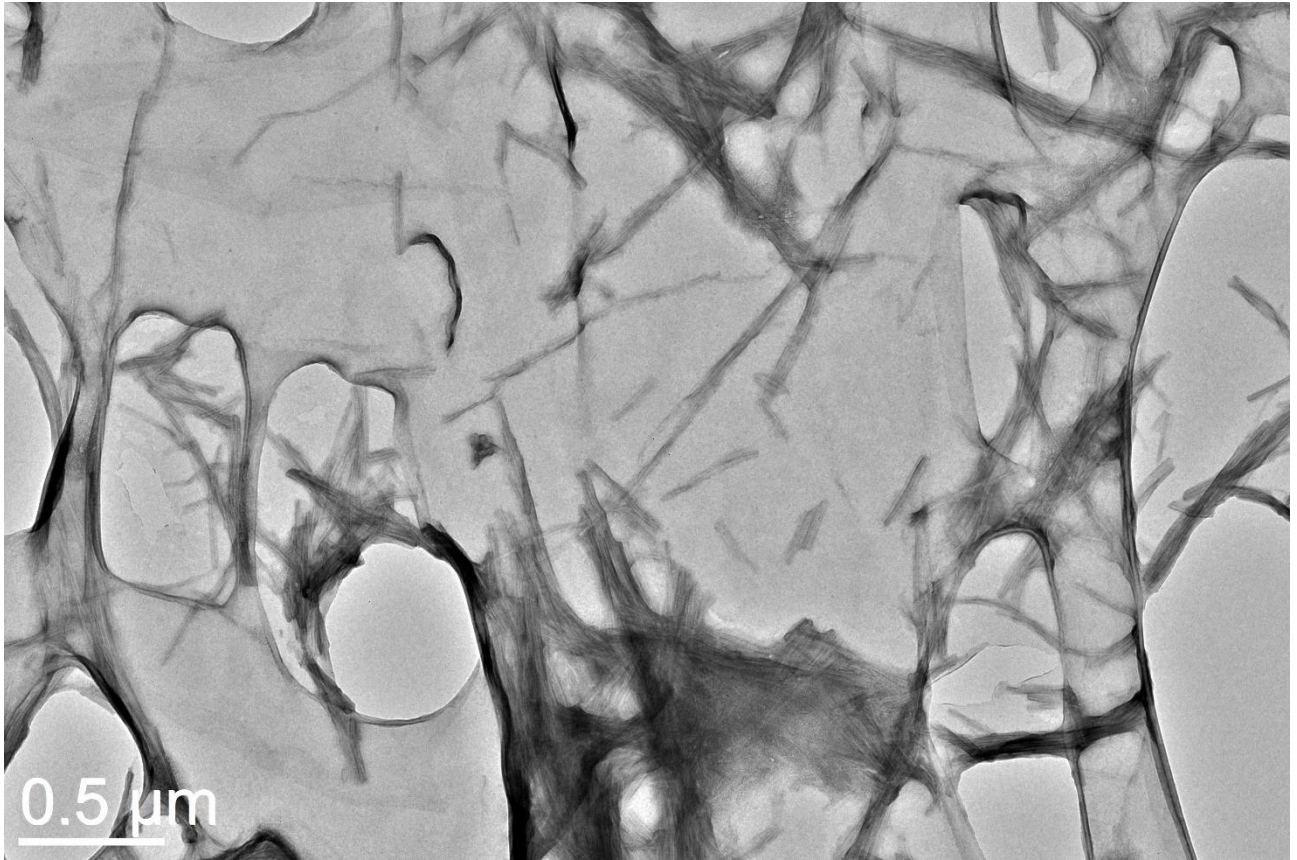


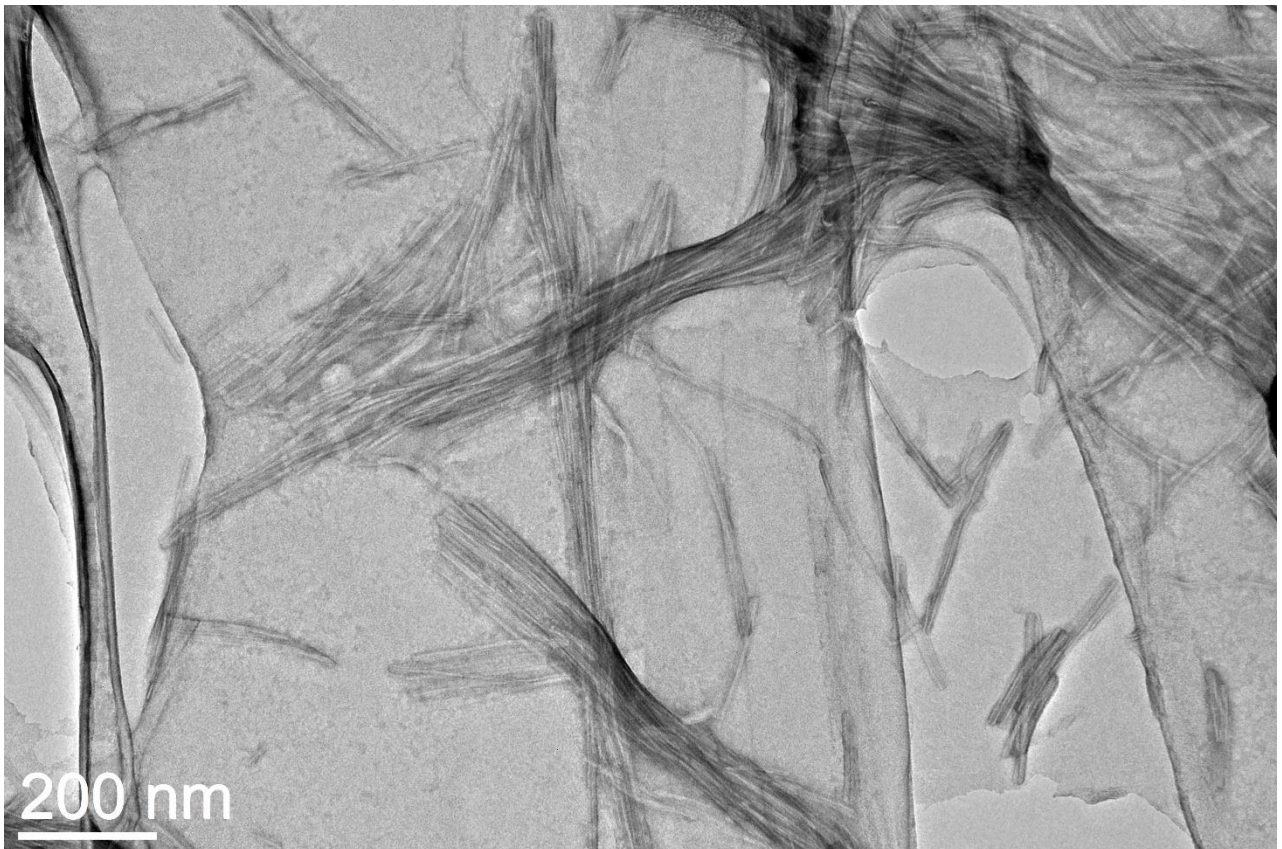
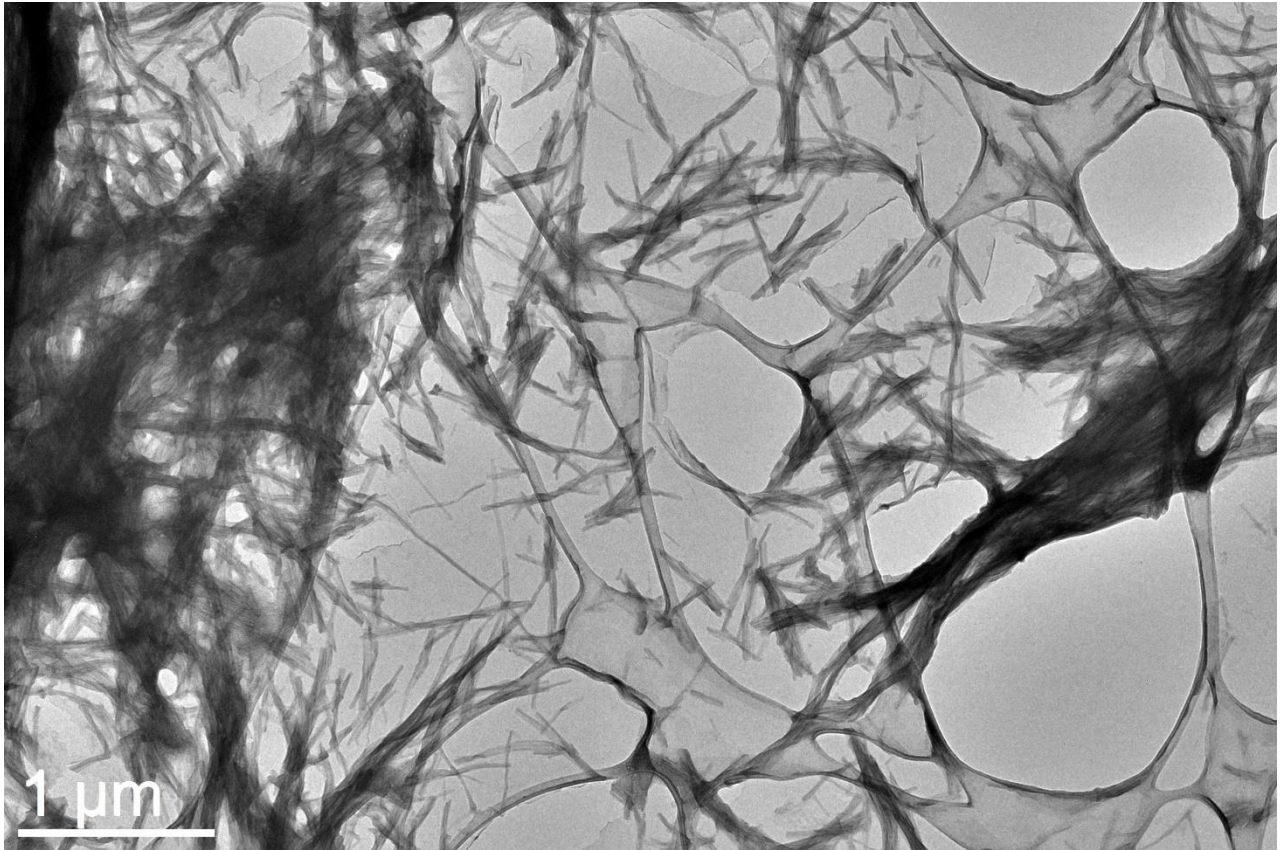


S3. TEM micrographs of insulin fibrils + pFf

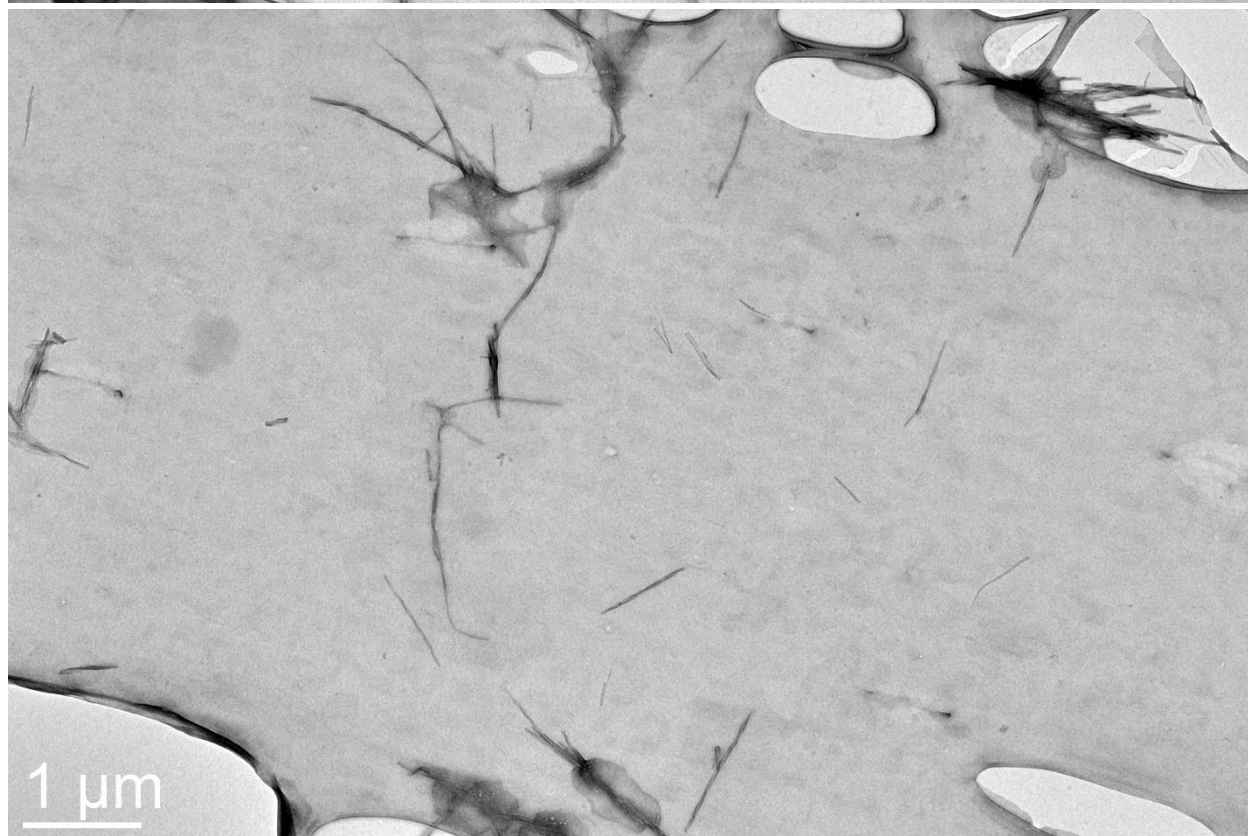
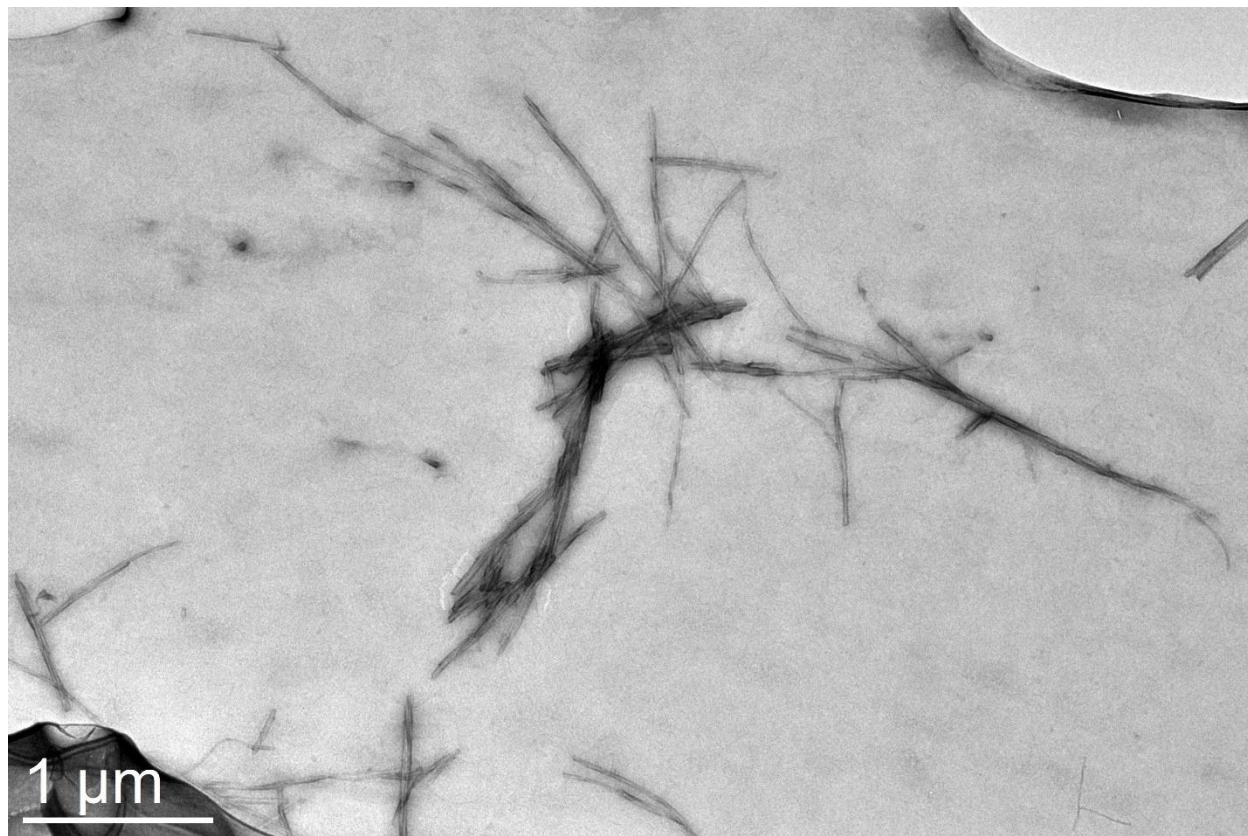


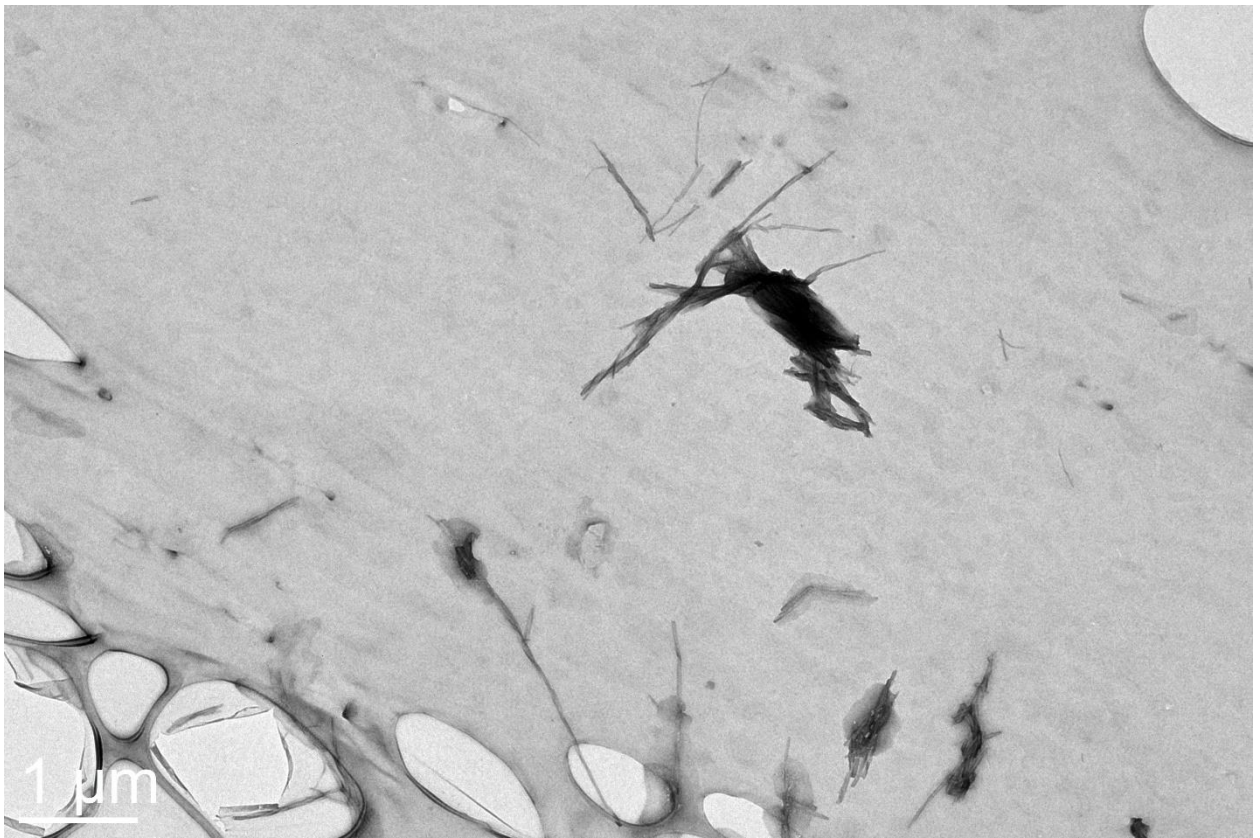


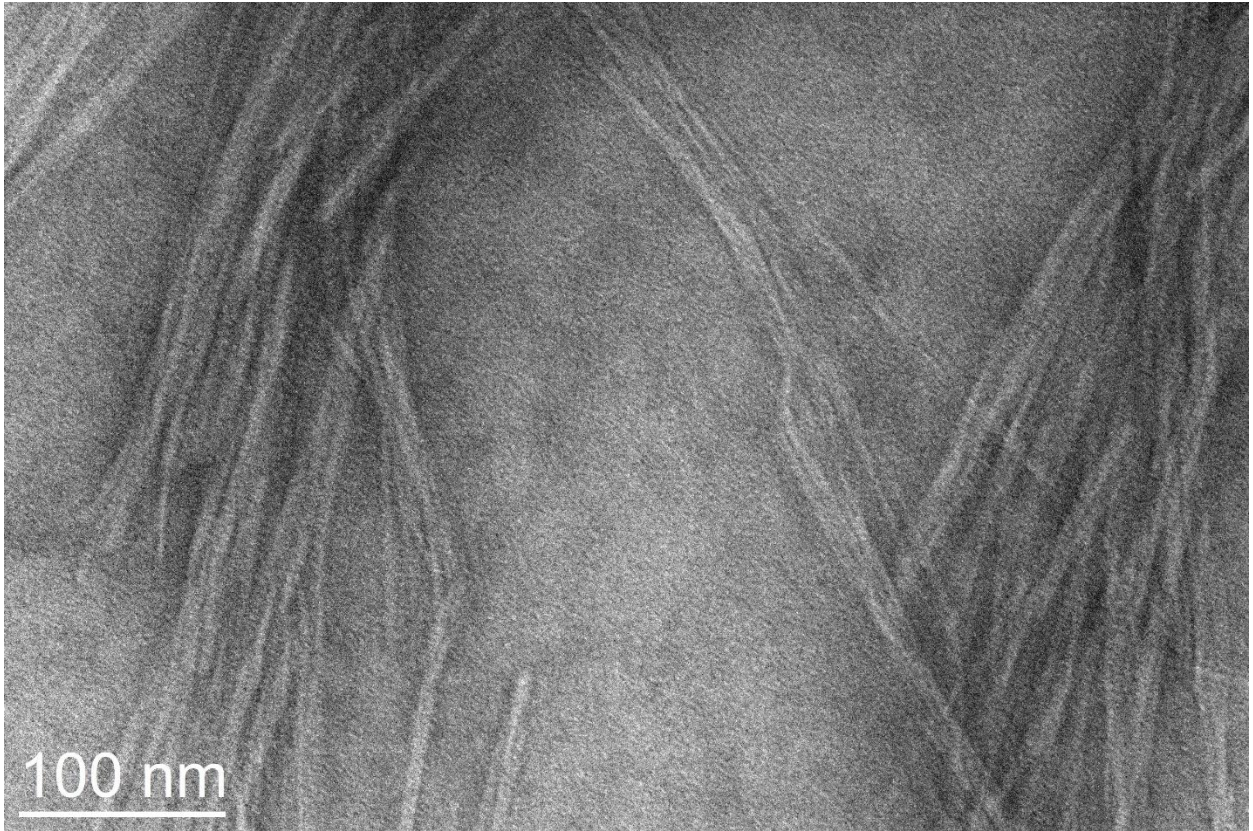




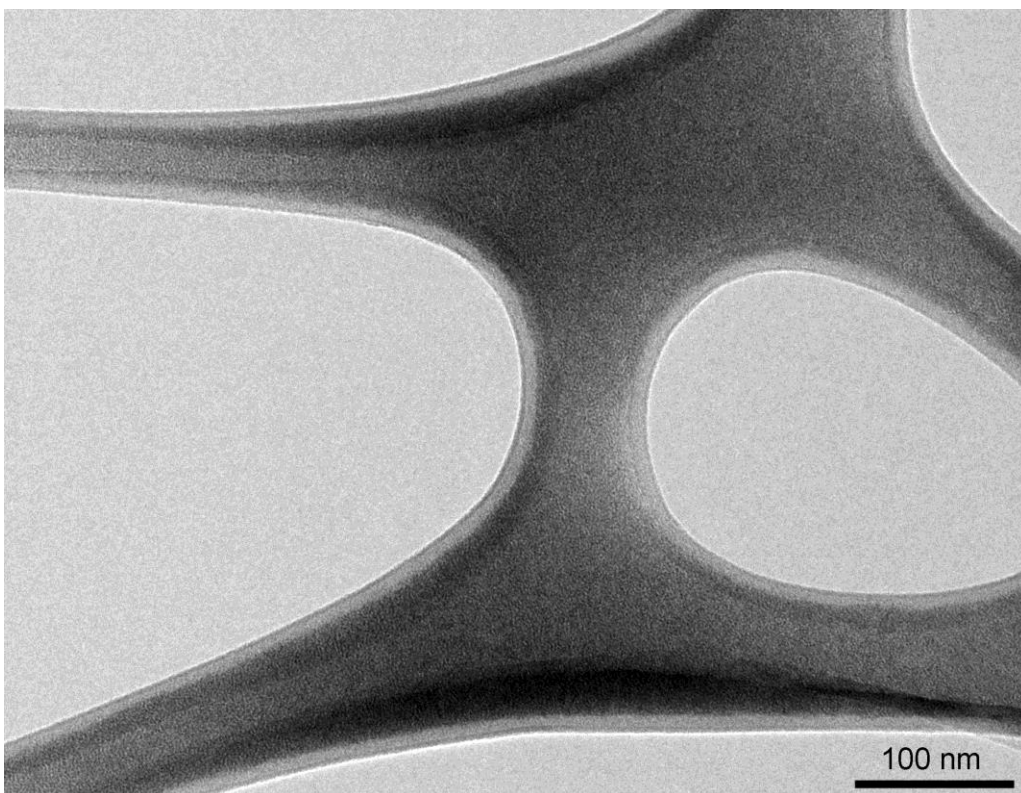
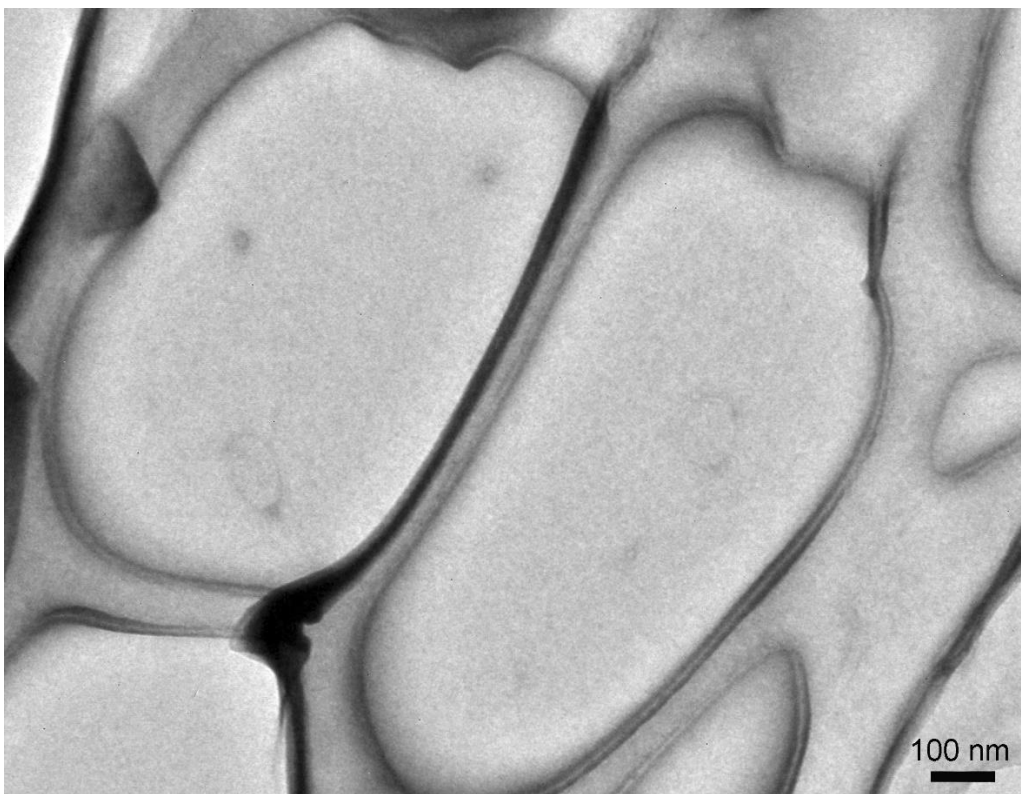
S4. TEM micrographs of insulin fibrils + Pff

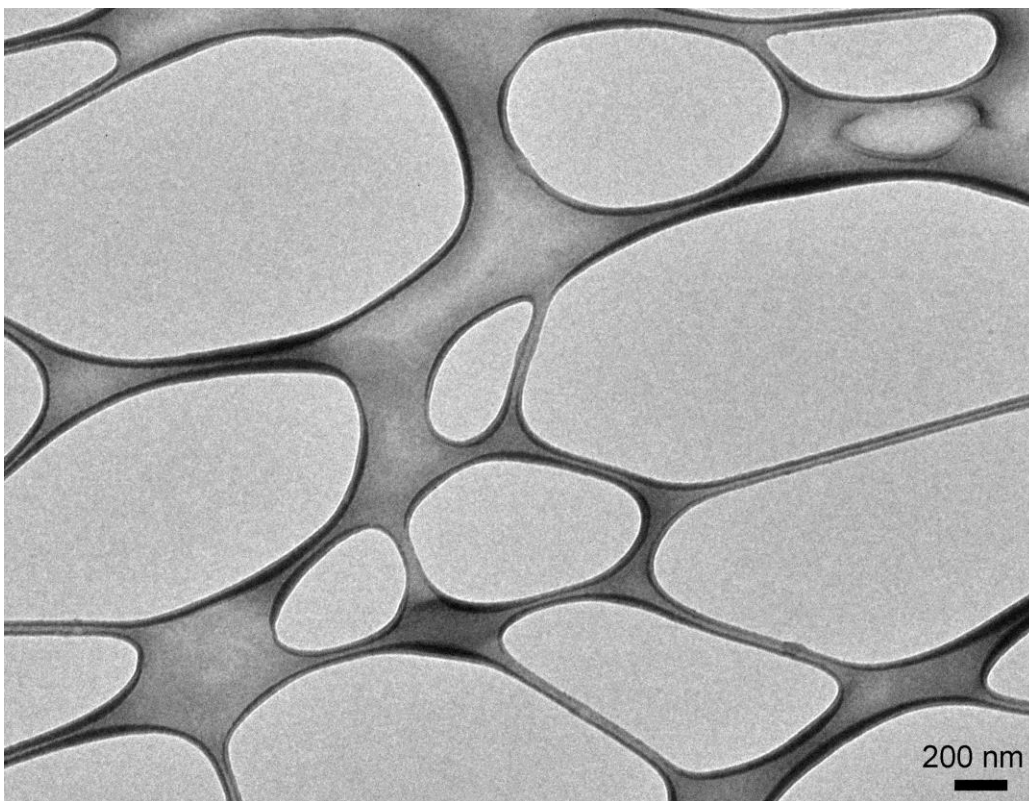




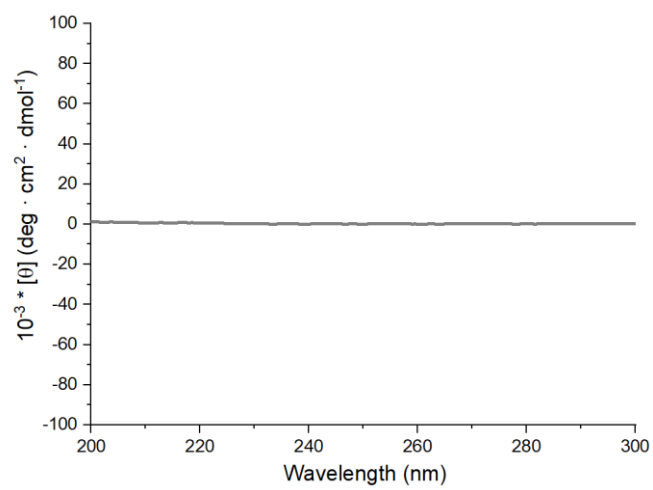


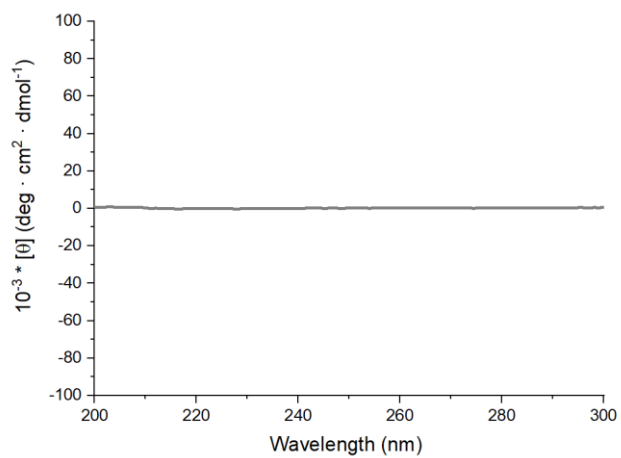
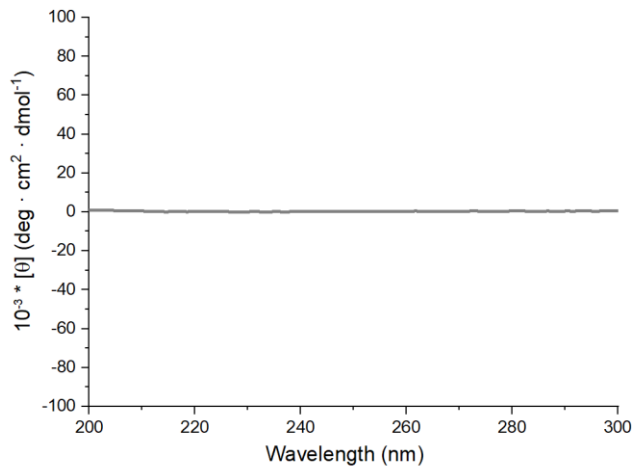
**S5.** TEM micrographs of the three tripeptides PFF, pFf and Pff (from top to bottom, respectively). Only the lacey carbon is clearly visible and not fibrils:



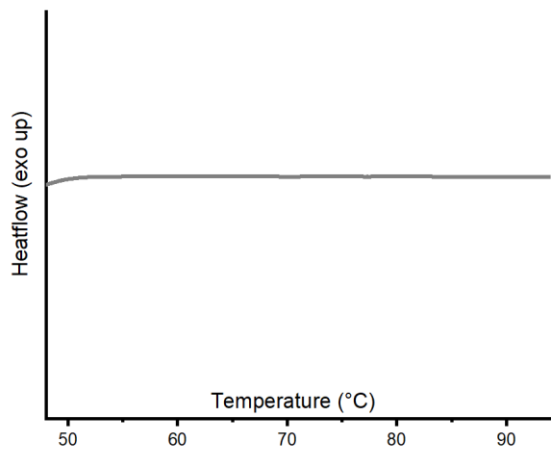


**S6.** CD spectra of the tripeptides PFF, pFf and Pff (from top to bottom, respectively, 0.34 mM):



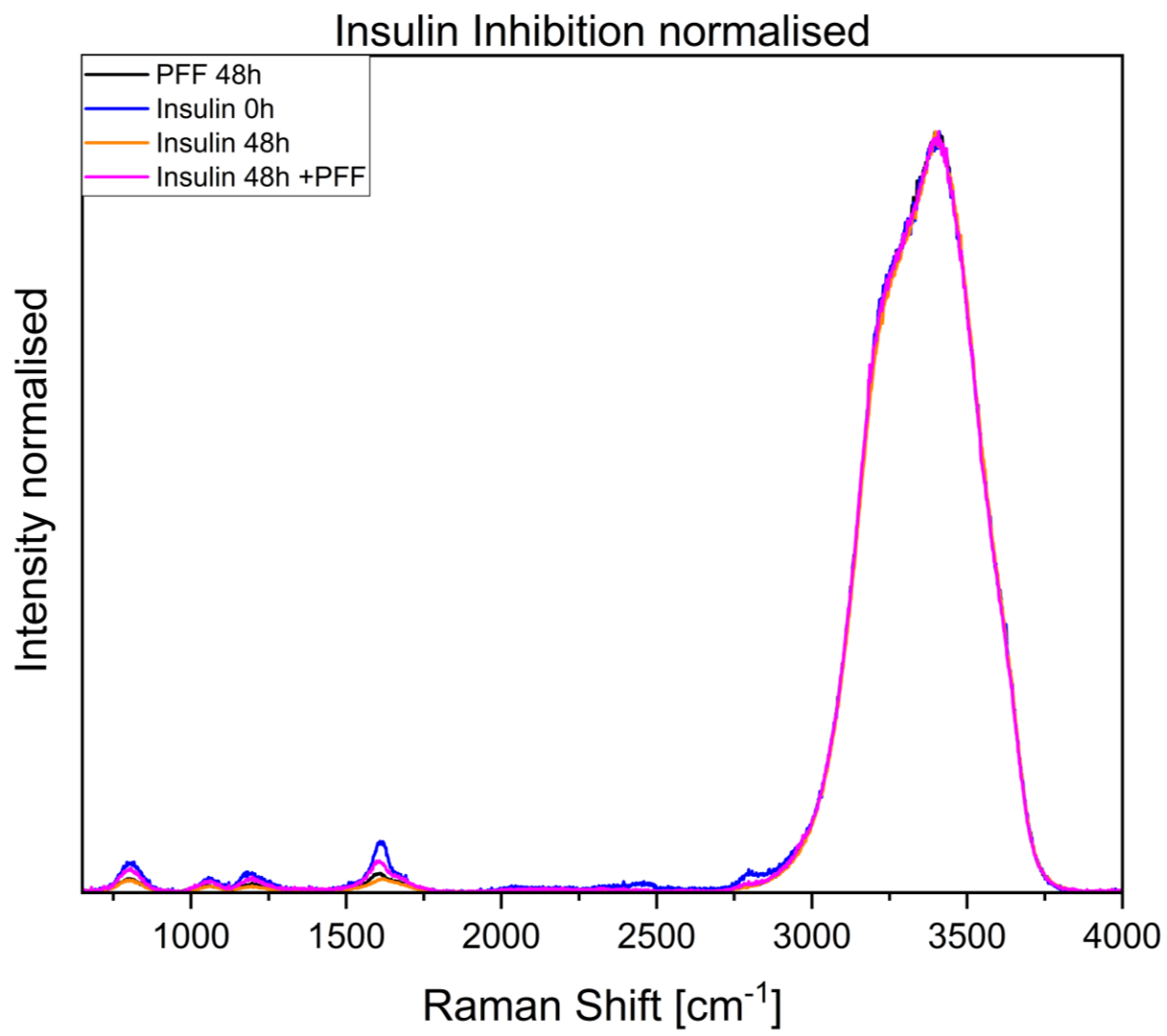


### S7.DSC data for PFF alone





58. UVRR spectra



S9. MD all-atom simulations

