

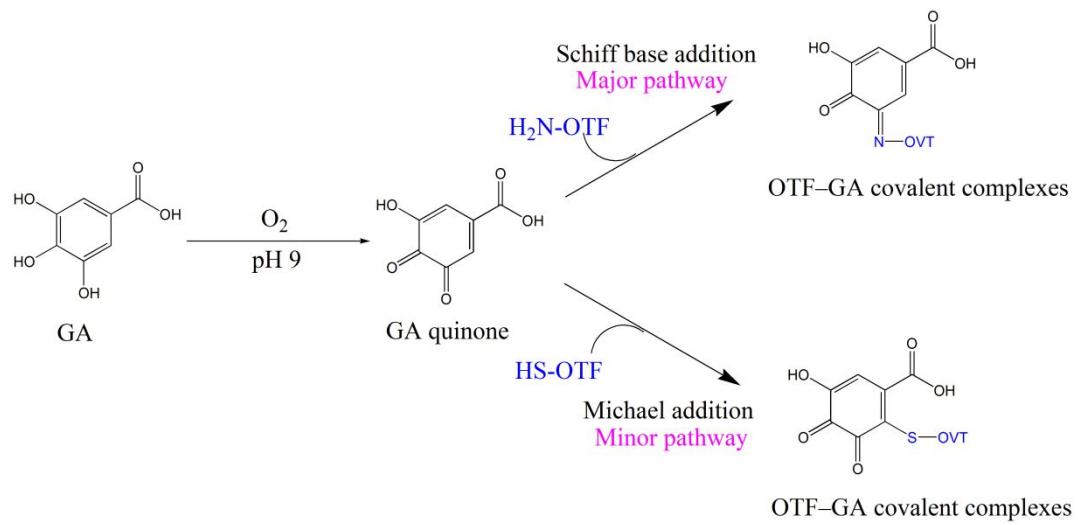
## **Supporting Information**

for

### **Modulation of formation, physicochemical properties and digestion of ovotransferrin nanofibrils with covalent or non-covalent bound gallic acid**

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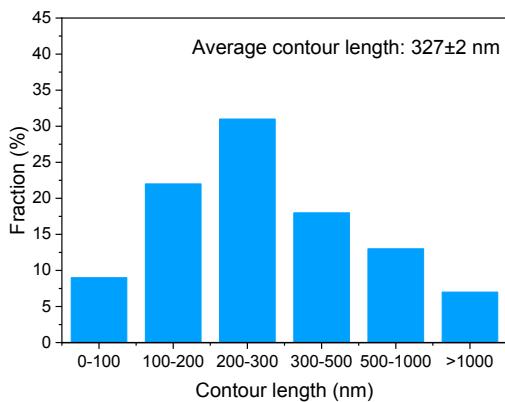


**Figure S1.** Schematic formation pathway of OTF–GA covalent complexes

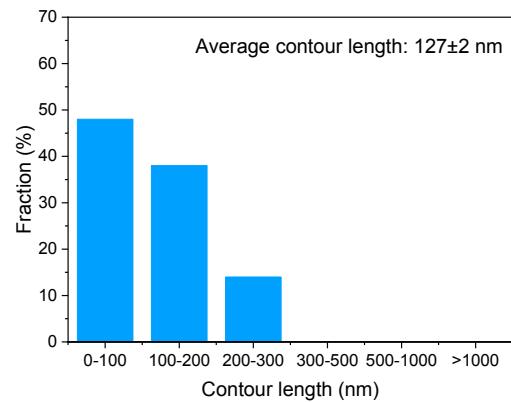
**Table S1.** Surface hydrophobicity of OTF and OTF–GA complexes

Samples	Surface hydrophobicity
OTF	1519.6±31.7 <sup>g</sup>
OGC-L	231.7±18.4 <sup>c</sup>
OGC-M	119.8±12.1 <sup>b</sup>
OGC-H	87.9±9.7 <sup>a</sup>
OGP-L	1211.7±43.2 <sup>f</sup>
OGP-M	929.1±36.7 <sup>e</sup>
OGP-H	740.0±27.5 <sup>d</sup>

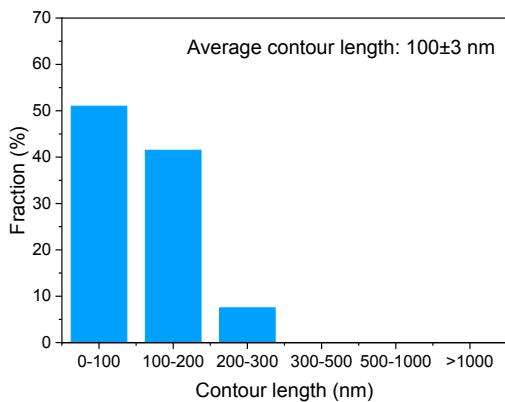
Different superscript letters in the same column indicate significant differences ( $p < 0.05$ ).



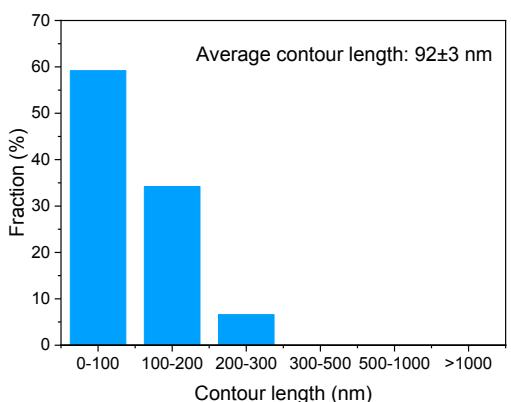
(1) OTF fibrils



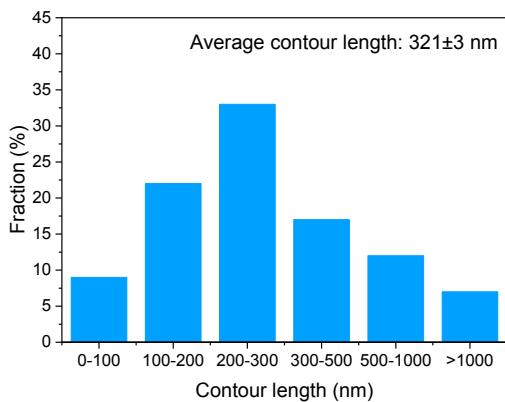
(2) OGC-L fibrils



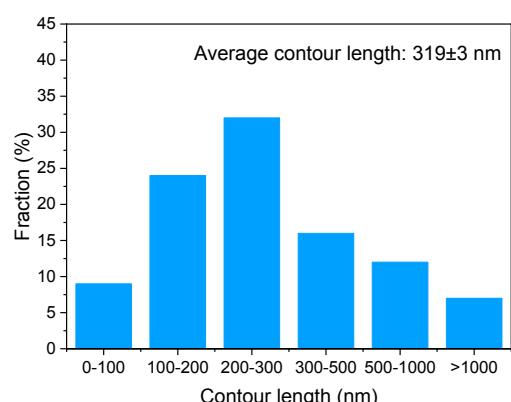
(3) OGC-M fibrils



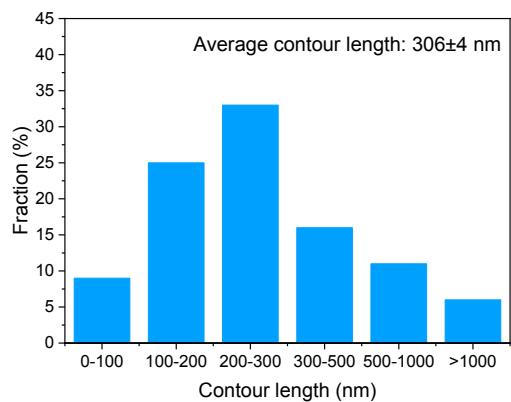
(4) OGC-H fibrils



(5) OGP-L fibrils

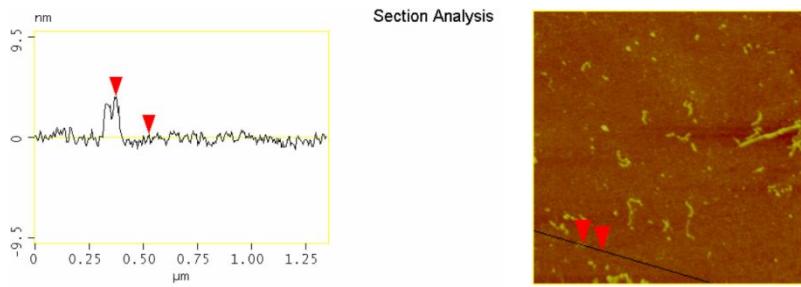


(6) OGP-M fibrils

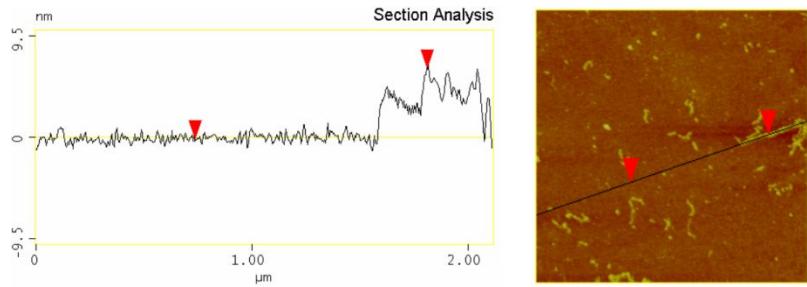


(7) OGP-H fibrils

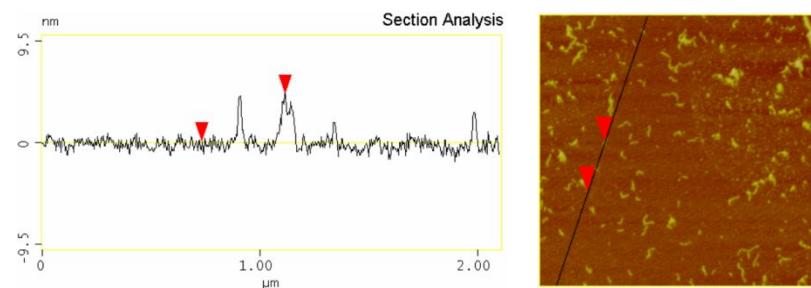
**Figure S2.** Contour length distribution of nanofibrils derived from OTF and OTF–GA complexes



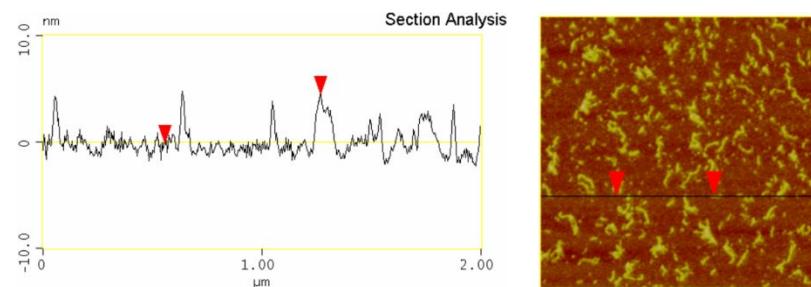
(1) Section analysis of fibrils derived from OTF. The marked height is 3.590 nm.



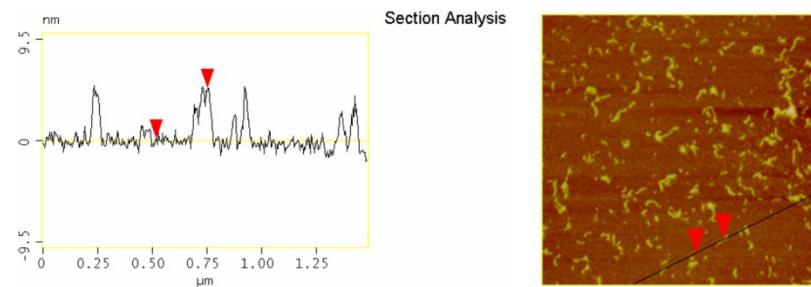
(2) Section analysis of fibrils derived from OTF. The marked height is 6.669 nm.



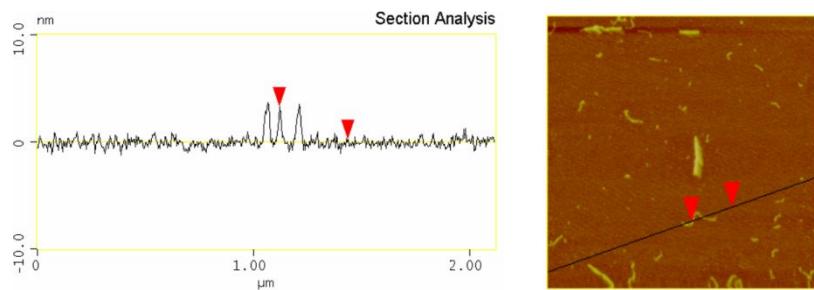
(3) Section analysis of fibrils derived from OGC-L. The marked height is 4.419 nm.



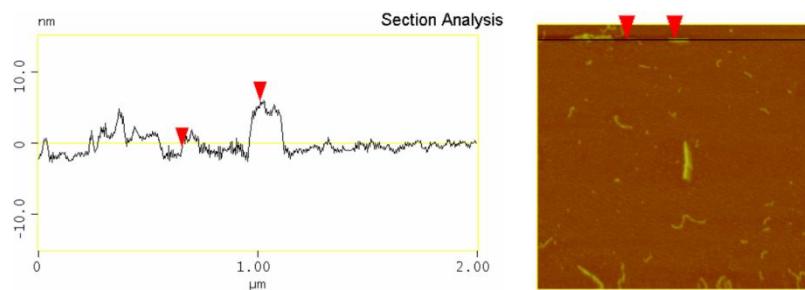
(4) Section analysis of fibrils derived from OGC-M. The marked height is 4.584 nm.



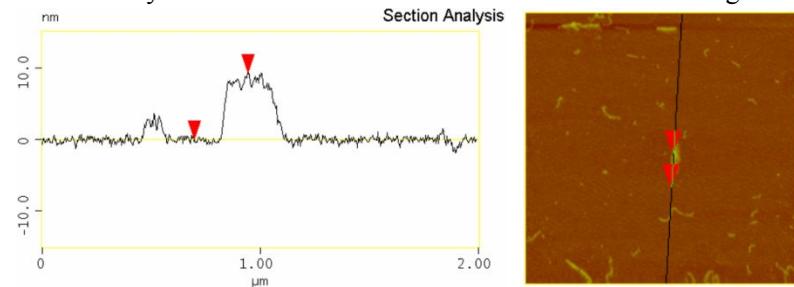
(5) Section analysis of fibrils derived from OGC-H. The marked height is 4.774 nm.



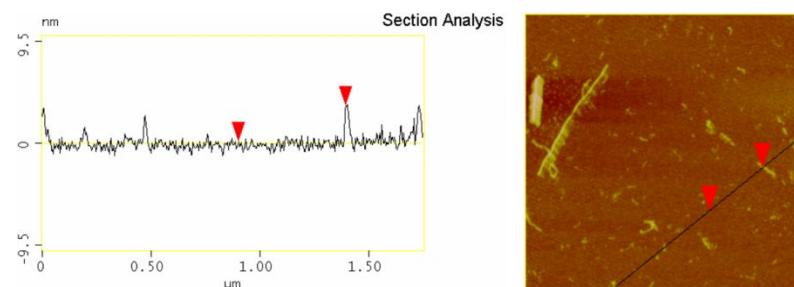
(6) Section analysis of fibrils derived from OGP-L. The marked height is 3.037 nm.



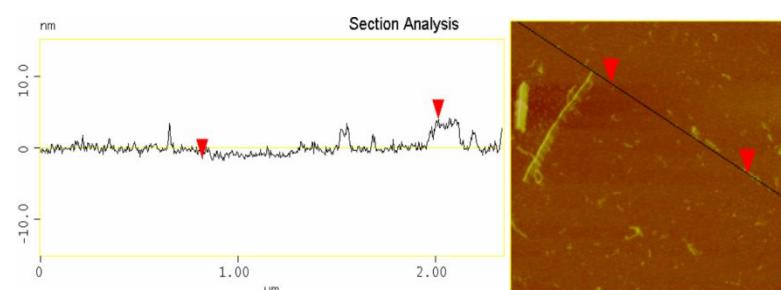
(7) Section analysis of fibrils derived from OGP-L. The marked height is 6.416 nm.



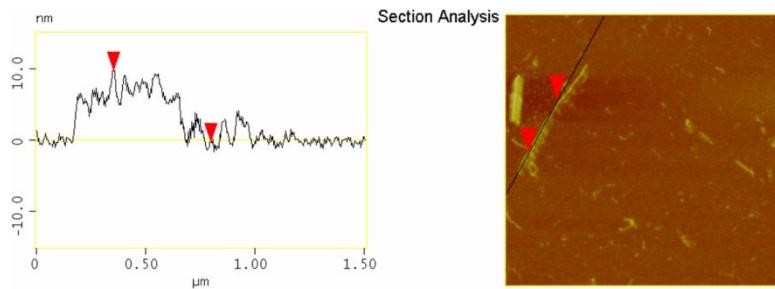
(8) Section analysis of fibrils derived from OGP-L. The maximum height is 9.204 nm.



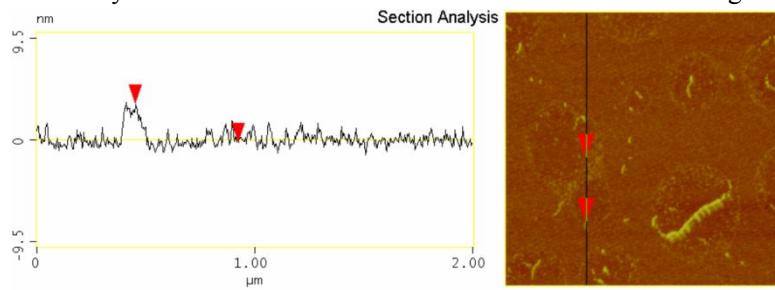
(9) Section analysis of fibrils derived from OGP-M. The maximum height is 3.365 nm.



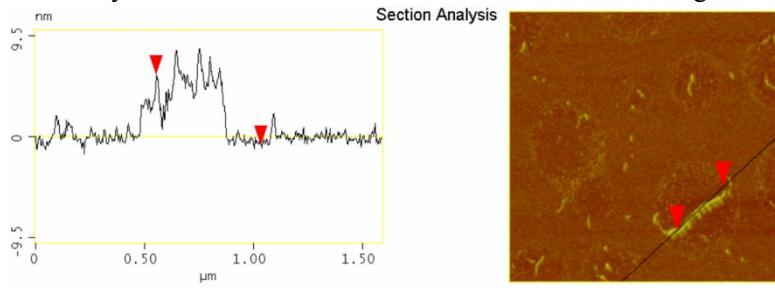
(10) Section analysis of fibrils derived from OGP-M. The maximum height is 5.588 nm.



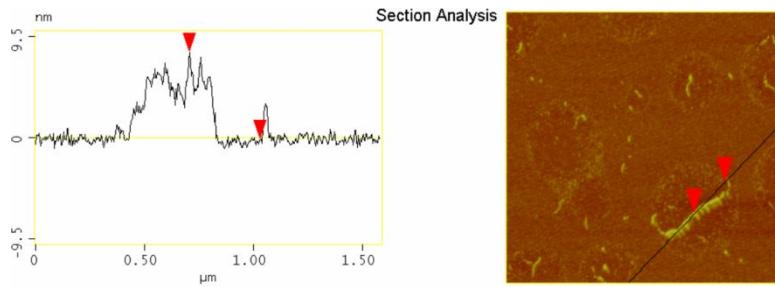
(11) Section analysis of fibrils derived from OGP-M. The maximum height is 9.729 nm.



(12) Section analysis of fibrils derived from OGP-H. The marked height is 3.536 nm.



(13) Section analysis of fibrils derived from OGP-H. The marked height is 6.632 nm.



(14) Section analysis of fibrils derived from OGP-H. The marked height is 8.185 nm.

**Figure S3.** Section analysis of nanofibrils derived from OTF and OTF–GA complexes

**Table S2.** Summary of marked heights of fibrils derived from OTF and OTF–GA complexes determined using section analysis

Samples	Marked height (nm)
OTF fibrils	3.590 and 6.669
OGC-L fibrils	4.419
OGC-M fibrils	4.584
OGC-H fibrils	4.774
OGP-L fibrils	3.037, 6.416 and 9.204
OGP-M fibrils	3.365, 5.588 and 9.729
OGP-H fibrils	3.536, 6.632 and 8.185