## The Effect of PEGDE Concentration and Temperature on Physicochemical and Biological Properties of Chitosan

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#### SUPPLEMENTARY DATA

#### S1. Suggested chemical reactions between CHT and PEGDE and CHT-GA



**a)** Expected crosslinking reaction between the NH<sub>2</sub> of chitosan and PEGDE. **b)** Expected crosslinking reaction between the OH of chitosan and PEGDE. **c)** Expected crosslinking reaction between the NH<sub>2</sub> of chitosan and GA. **d)** Expected crosslinking reaction between the OH of chitosan and GA.



XPS spectrum of carbon on chitosan film dried at (A) 25°C (B) 150°C



XPS spectrum of oxygen on chitosan film dried at (A) 25°C (B) 150°C



XPS spectrum of nitrogen on chitosan film dried at (A) 25°C (B) 150°C



2D topography and Ra (nm) of the films dried at 25°C (Top, a - e) and additional dried at 150°C (bottom, f - j); a: CHT, b: CHT/PEDGE1, c: CHT/PEDGE2, d: CHT/PEDGE3, e: CHT/GA, f: CHT, g: CHT/PEDGE1, h: CHT/PEDGE2, i: CHT/PEDGE3, j: CHT/GA)

### S3 AFM 3D topography and roughness