Electronic Supplementary Material (ESI) for Biomaterials Science.

Supplementary information

In vivo soft tissue reinforcement with bacterial nanocellulose

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Figure S1: FTIR spectra of BNC samples before (blue line) and after (red line) an ethylene oxide cycle sterilization. Note that no major changes are perceived after the treatment. The FTIR spectra were obtained as the average of 16 scans.

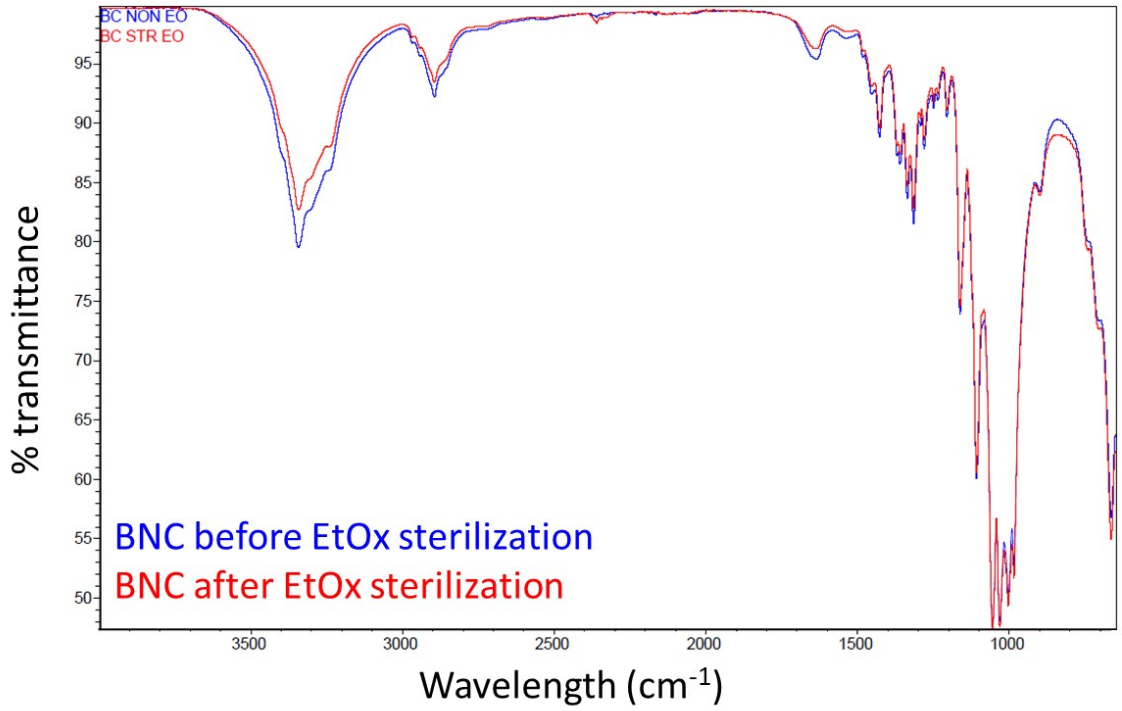

Figure S2: Comparison of all the systems studied. ↓ Indicates the resistance to tear threshold for reinforcement materials.

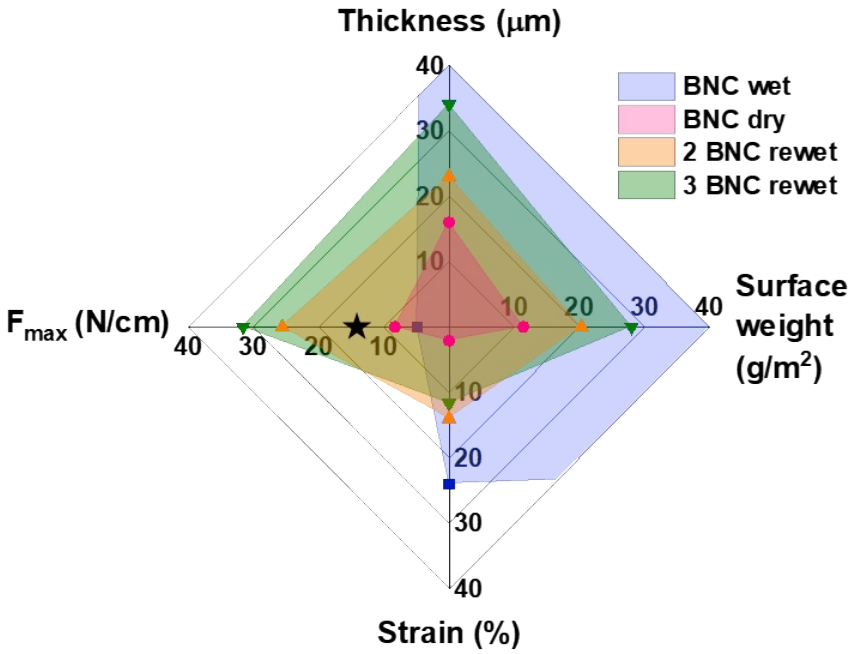

Figure S3: A) Digital image showing the BNC-PP composite after 5-day rehydration in water. B) A video is enclosed (see the provided supplementary file) to illustrate the manipulation and stability of the hybrid biomaterial.

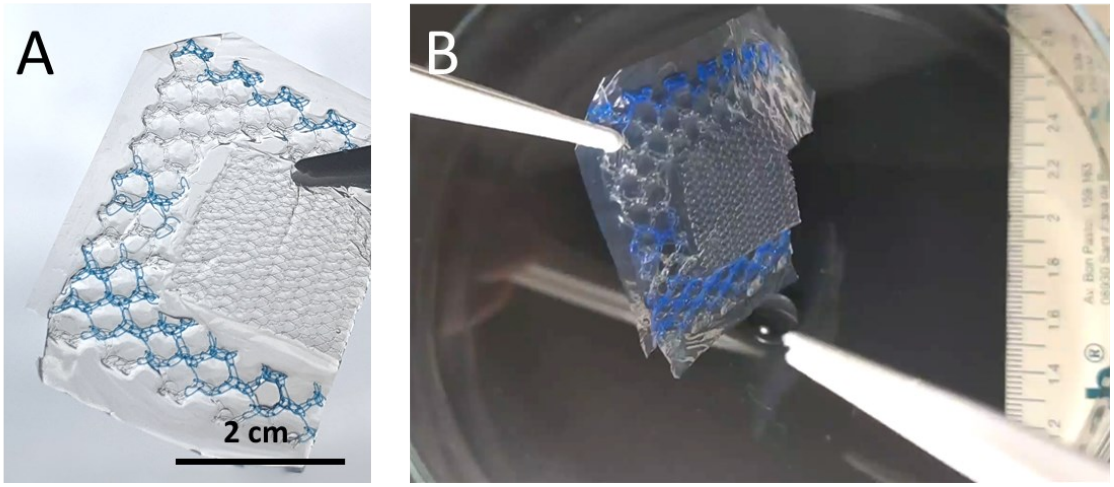

Figure S4: BNC implant's fixation with sutures, macroscopic evaluation and adhesion assessment for the five test animals. A) BNC patch applied onto the abdominal wall and fixed with six suture points at time= 0. Explanted analysis after 21 days; B) A1, * adhesion, ► vascularization, → fibrin accumulation, C) A2, * vascularization, ► adjacent abdominal wall, → fibrin accumulation. D) A3, * adhesion, ► adjacent abdominal wall and vascularization, → thin adhesion strands. E) A4, * big adhesion, ► fibrin accumulation, → vascularization, and F) A5, * Adhesion, ► fibrin accumulation, → ventral margin turned over.