A New Memory Latex & ZnO Based Strategy to Resolve the Abnormal High Risk of Cardiac Implant Related Inflammation

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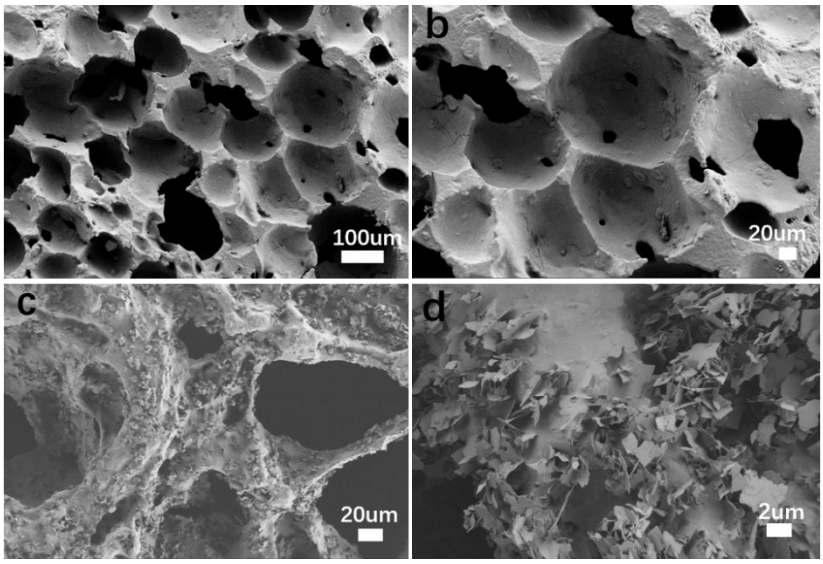

Fig. S1 (a, b) SEM image of the porous structure of the latex foam. (c, d) SEM image of nanometer ZnO of the sheet-like structure attached to the surface of the latex foam.

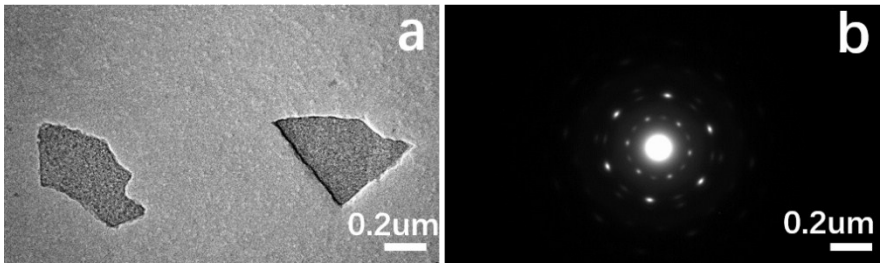

Fig. S2 (a) TEM and atomic-resolution HAADF images (b) of the ZnO nanosheet.

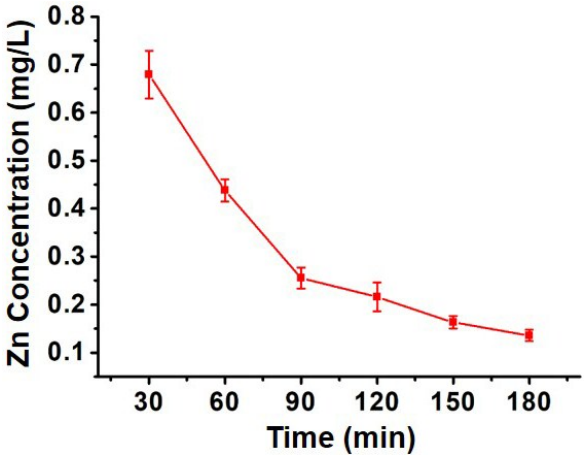

Fig. S3 Non-cumulative Zn release curve from Latex foam-ZnO into PBS.

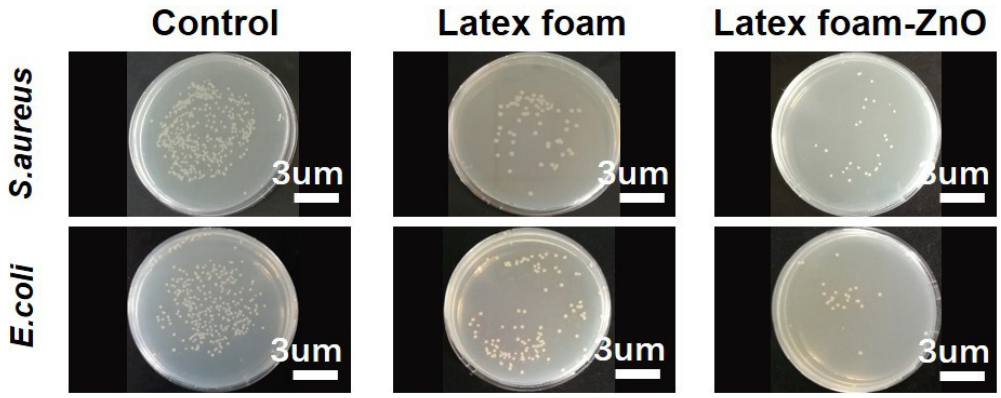

Fig. S4 The plate counting photos after treatment with different materials groups.

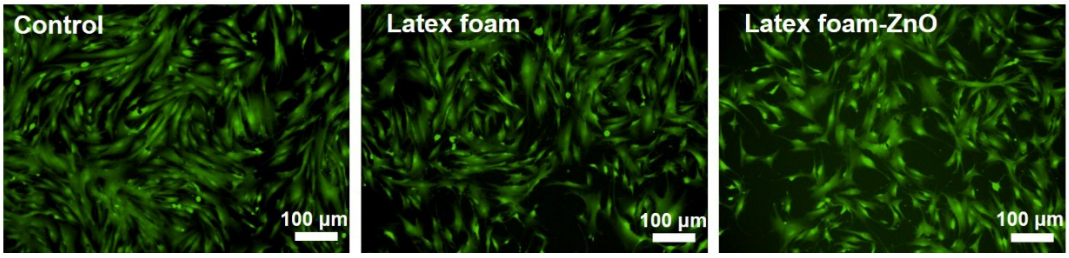

Fig. S5 Live/dead cell viability assay of HSF cell incubation with 50mg/ml Leaching solution for 72 h.

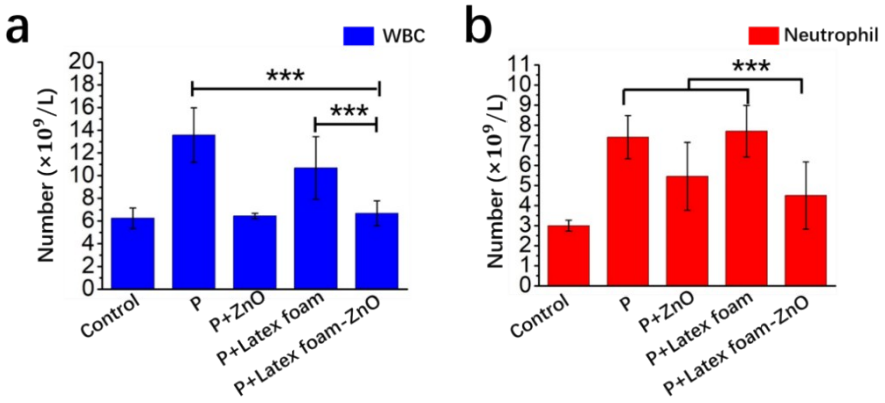

Fig. S6 *In vivo* routine analysis of blood of the numbers of white blood cells (a) and neutrophils (b) in the whole blood extracted from the rabbits two weeks after implantation in the bacterial infection model.

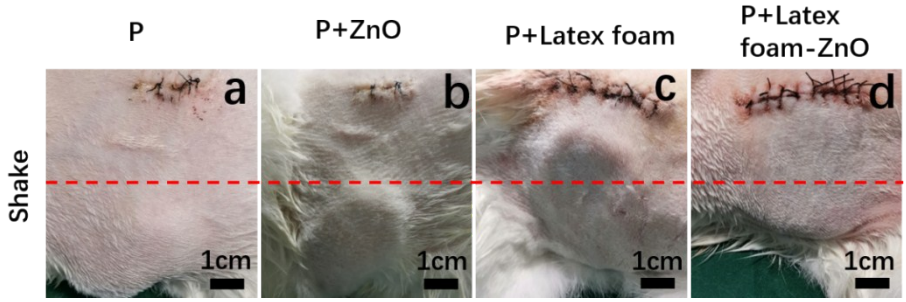

Fig. S7 The images of the back wound of different groups of rabbits after two weeks of implantation in different shaking models. (a) Pacemaker group. (b) Pacemaker + ZnO group. (c) Pacemaker + Latex foam group. (c) Pacemaker + Latex foam-ZnO group. (red dotted line represents the implanted central axis).

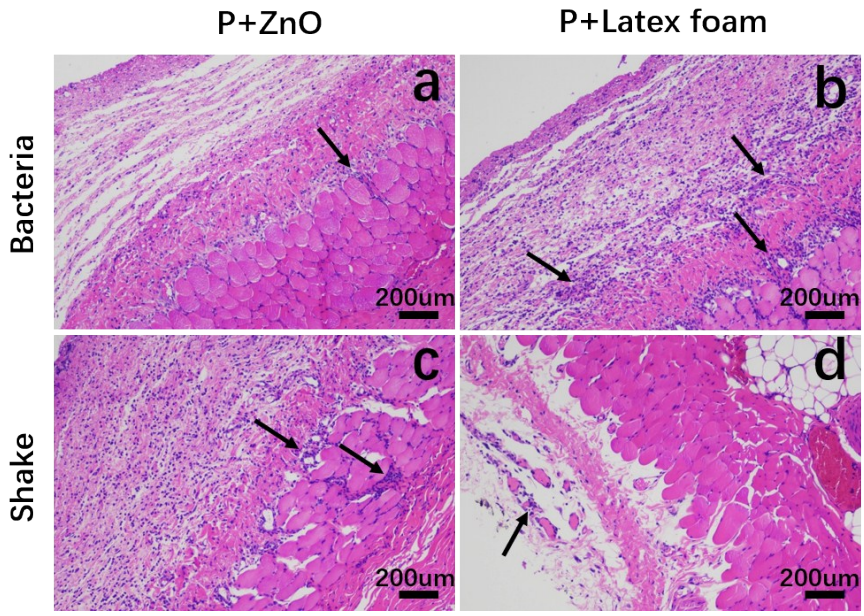

Fig. S8 The hematoxylin and eosin (HE) images of skin tissue in two groups (pacemaker + ZnO and pacemaker + Latex foam) after two weeks of implantation. (a, b) The bacterial infection model; (c, d) The shaking inflammatory model. (black arrow represents inflammatory cells).

A list of videos (videos are uploaded as separate files)：

Video S1: The compression and springback process of the latex foam.

Video S2: The rabbit shakes in the shaker.