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Supplementary Information

A ternary doping single matrix material with dual function of bone repair and multimodal tracking for applications in orthopedics and dentistry

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Figure S1 shows the defect site in the rabbit femoral condyle and the surgical procedure during animal experiments.

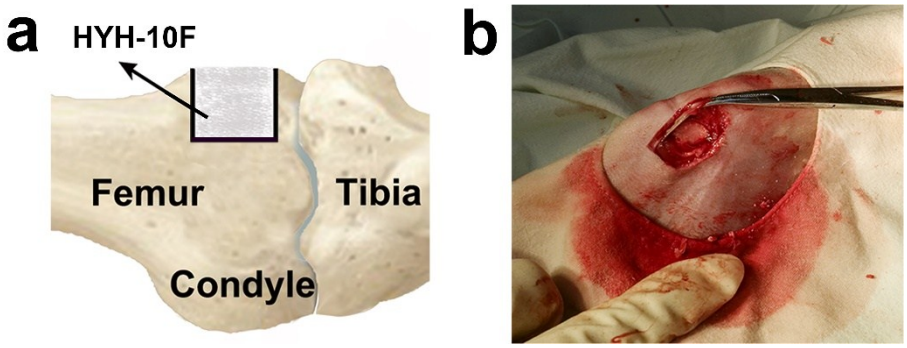

Figure S1. The defect site (~φ6 mm × 5 mm) in the rabbit femoral condyle and the surgical procedure during animal experiments.

Figure S2 shows the Micro-CT reconstructed new bone tissue of the control group and the material group at 2 months and 4 months. For the control group, the reconstructed bone tissue is not as complete as that of the material group, the newly formed bone tissue grows mainly along the margin of defect.

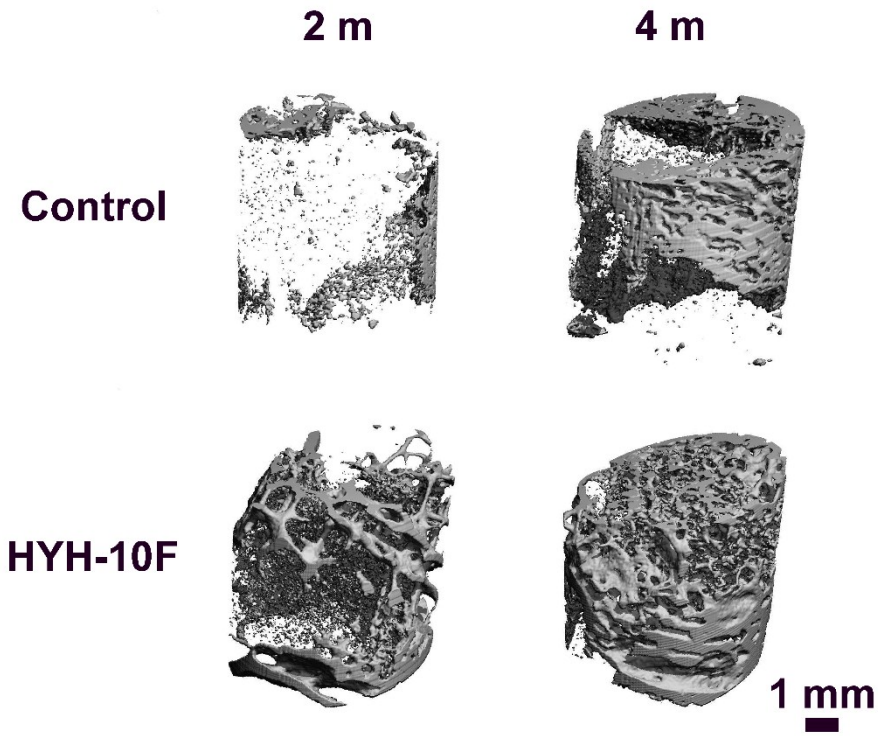

Figure S2. The micro-CT reconstructed images of new bone for the control group and material group at 2 months and 4 months.

The HYH-10F particles around the implant are clearly visible on the X-ray images of Micro-CT. Both the metallic Ti implant and the doping HYH-F material can be clearly imaged by the X-ray of Micro-CT, however they have different X-ray absorbency and are easy to be distinguished.

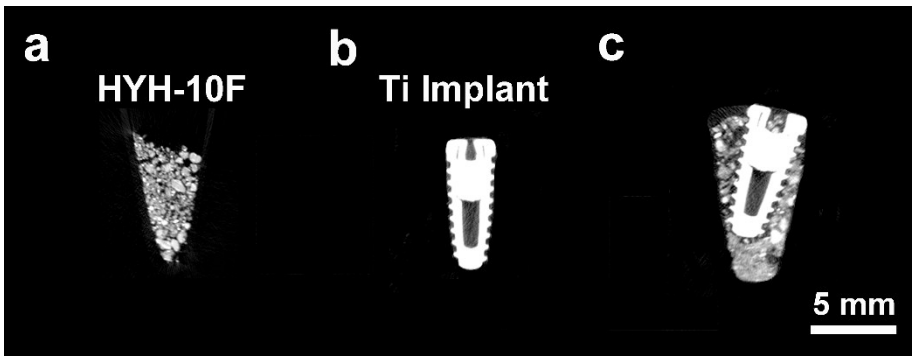

Figure S3. The micro-CT X-ray image of the HYH-10F particles, Ti implant and their combination.