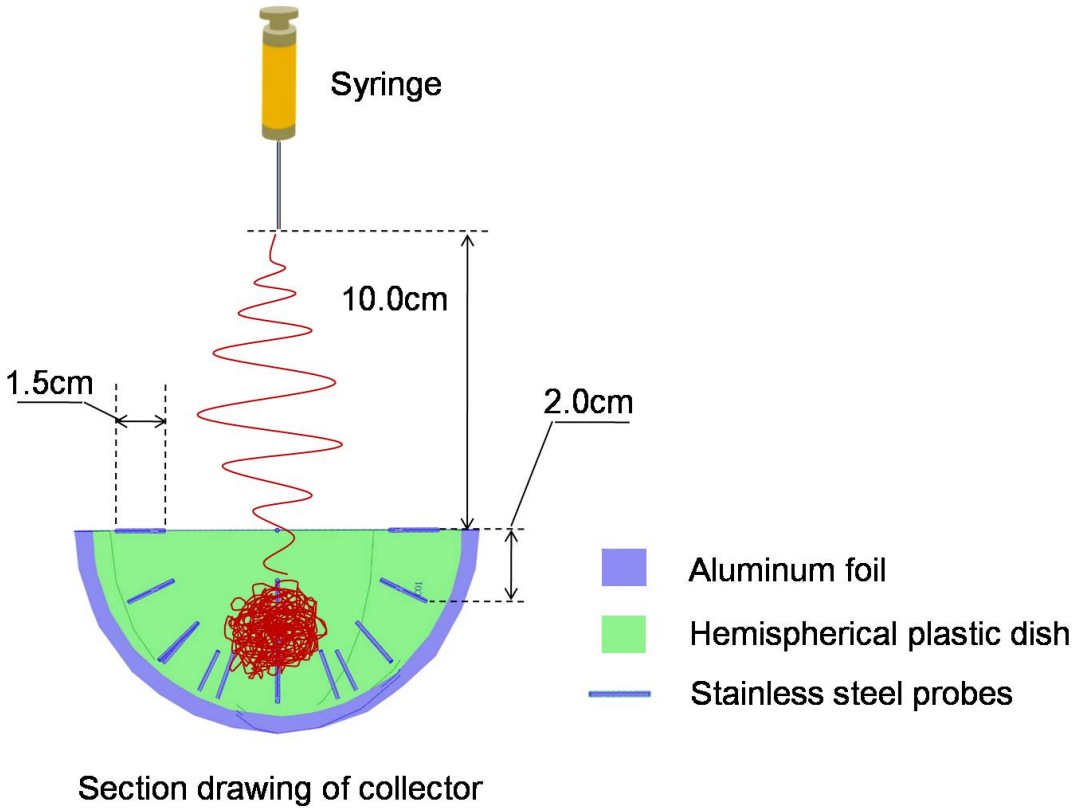

Figure S1. Illustration of section drawing of the special hemispherical collector.

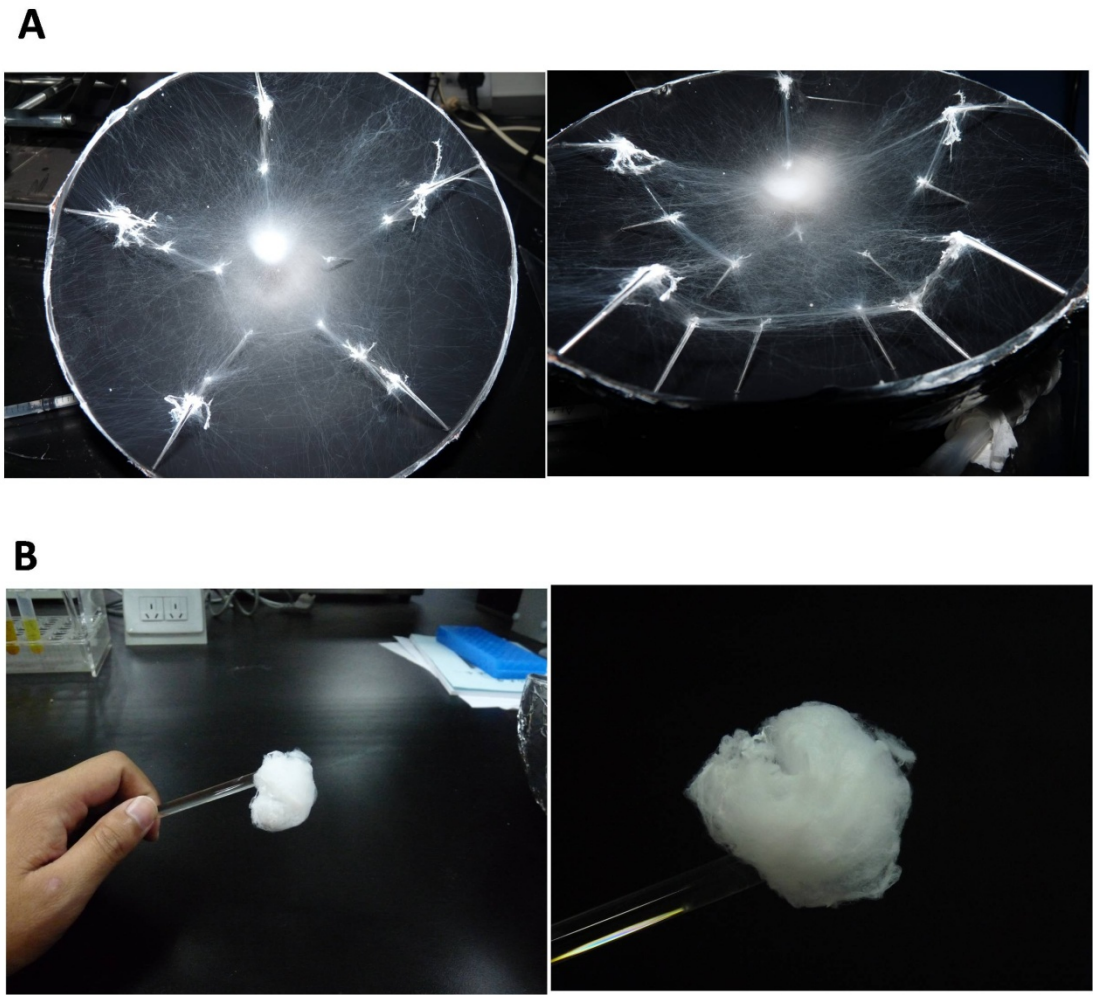

Figure S2. The photos of the special collector during the electrospinning process and the fluffy PLLA nanofibrous scaffold.

The method for the measurement of water absorption rate of different scaffolds:

Firstly, the quality of different scaffolds ($W_{scaffold}$) was recorded by an electronic balance. Subsequently, these scaffolds were immersed into DI water under room temperature for 2 hours, and then an ultrasonic was applied for 5 minutes to remove air bubbles in these scaffolds. The scaffolds were took out from the DI water with a mesh colander and slightly shocked to remove the water attached on the mesh colander. A wide forceps was used to move the scaffolds from mesh colander to electronic balance carefully to record the quality of the water and scaffolds. The quality of the water in the scaffolds was calculated by the formula of $W_{water} = W_{water\ and\ scaffold} - W_{scaffold}$. Finally, the water absorption rate was calculated by the quality of water absorbed / the quality of scaffolds.