# Supplementary information

## A Robust Poly(N-acryloyl-2-glycine)-based Sponge for Rapid Hemostasis

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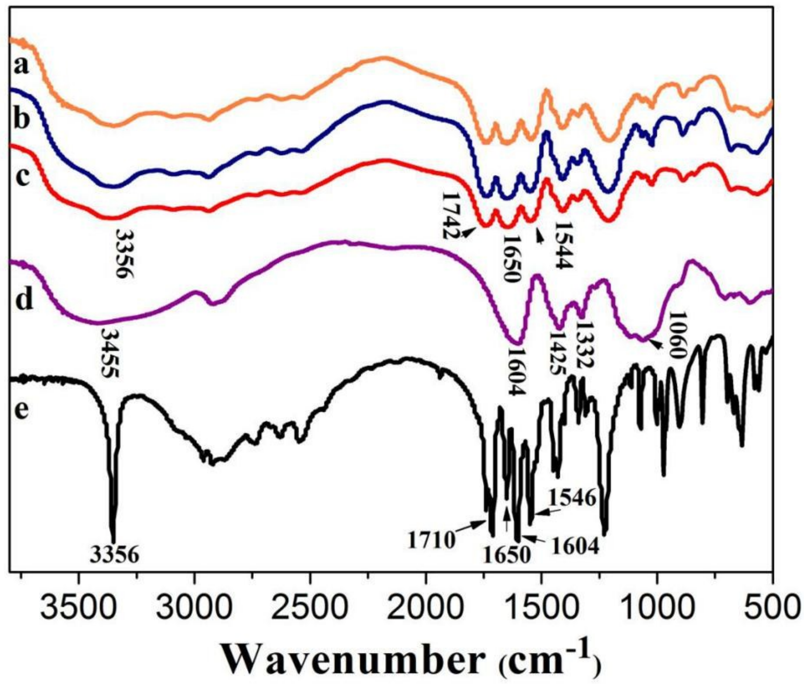


**Figure S1.** FTIR spectra of PACG50/CMC5 (a), PACG50/CMC3 (b), PACG (c), CMC (d) and ACG (e).

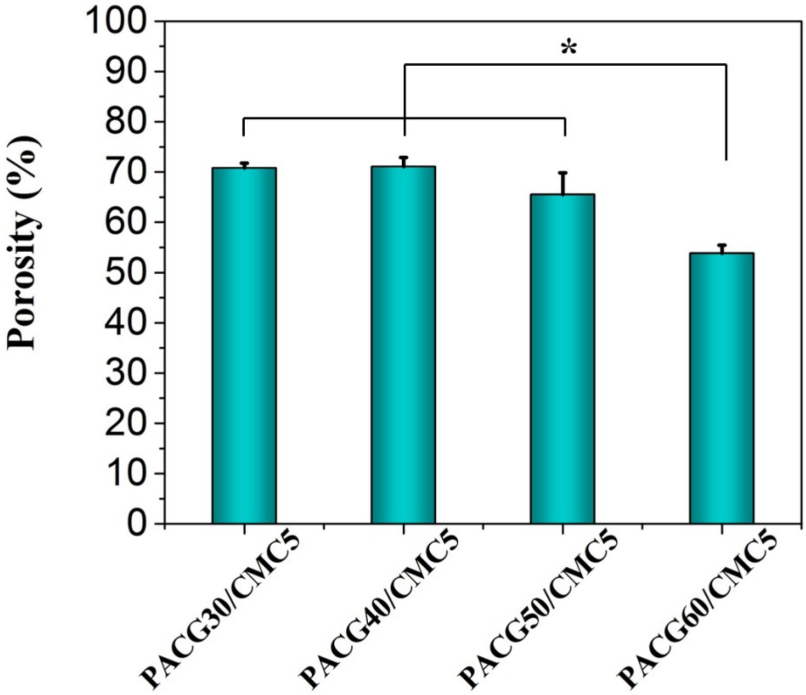


**Figure S2.** Porosity of PACG/CMC sponges with various ACG contents. Error bar indicates S.D. (n=3)

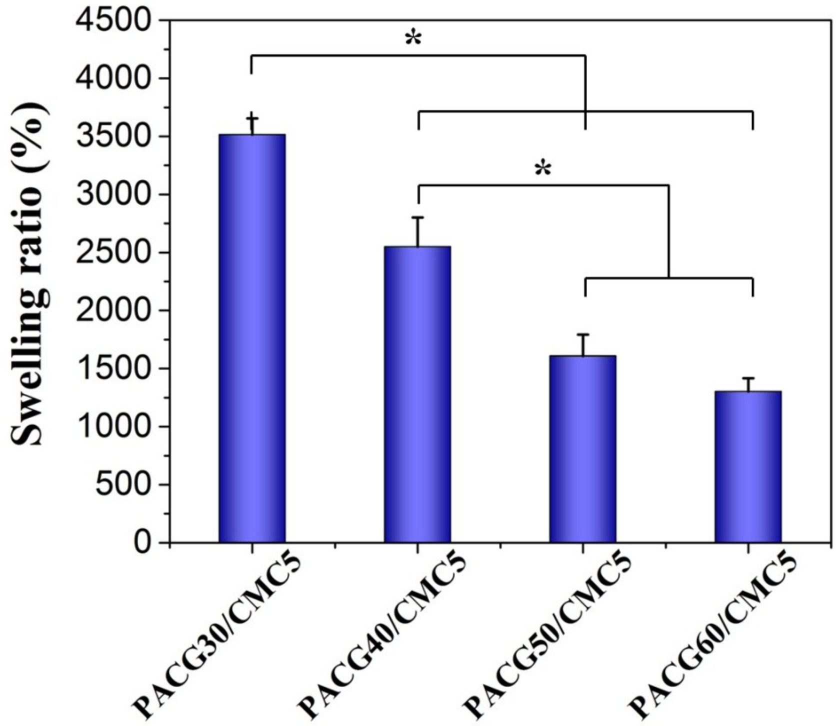


**Figure S3.** Swelling ratios of PACG/CMC sponges with various ACG contents. Error bar indicates S.D. (n=3)

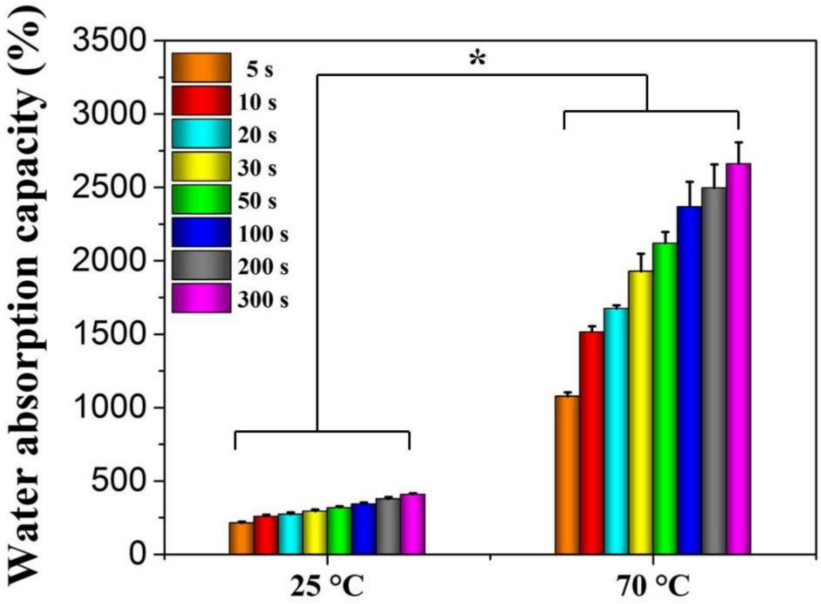


**Figure S4.** Water absorption capacity of PACG50/CMC5 sponges gelled at 25 °C and 70 °C at different times. Error bar stands for S.D. (n=3)

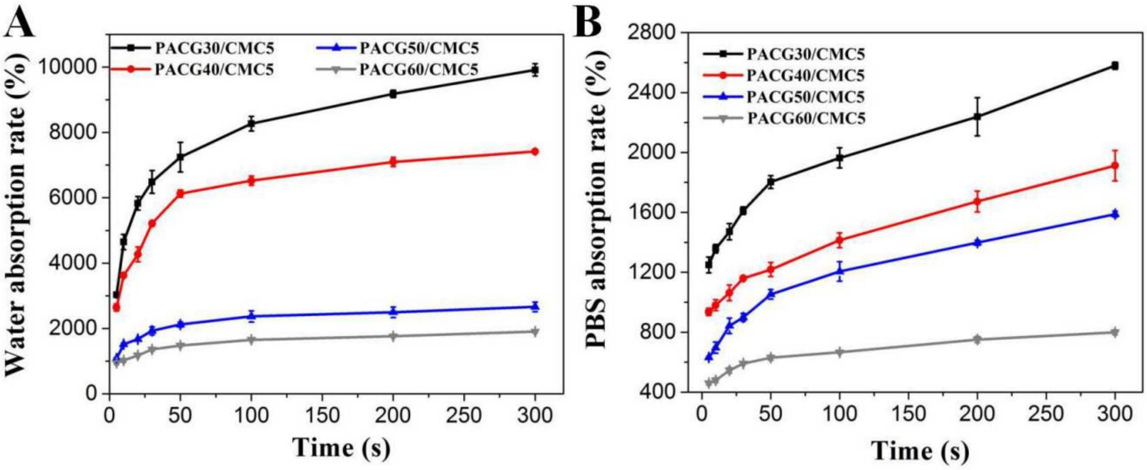


**Figure S5.** Water (A) and PBS (B) absorption rates of PACG/CMC sponges with various ACG contents from 30% to 60%. Error bar indicates S.D. (n=3)

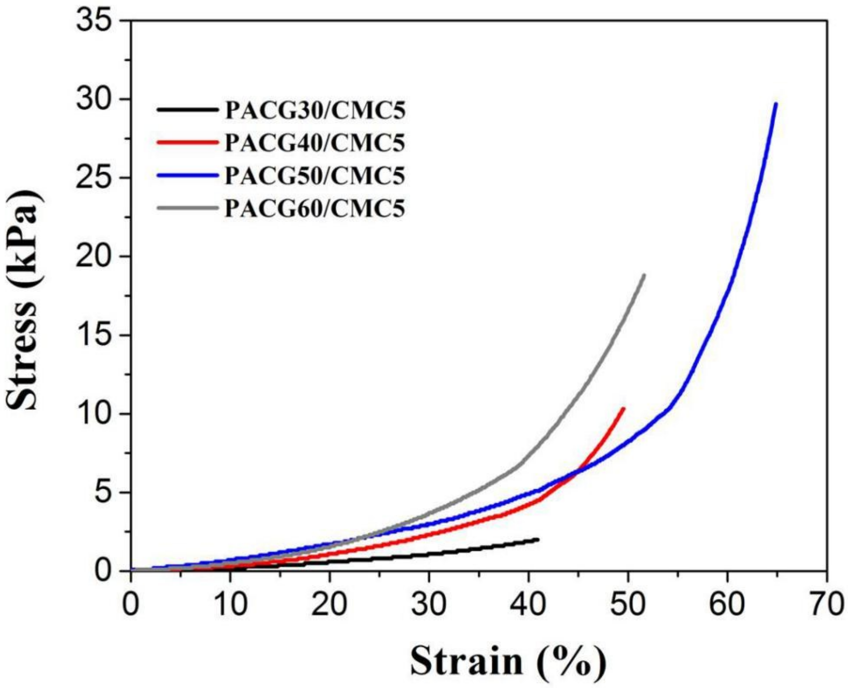


**Figure S6.** Compression stress-strain curves of PACG/CMC sponges with various ACG contents from 30% to 60% after absorbing water.

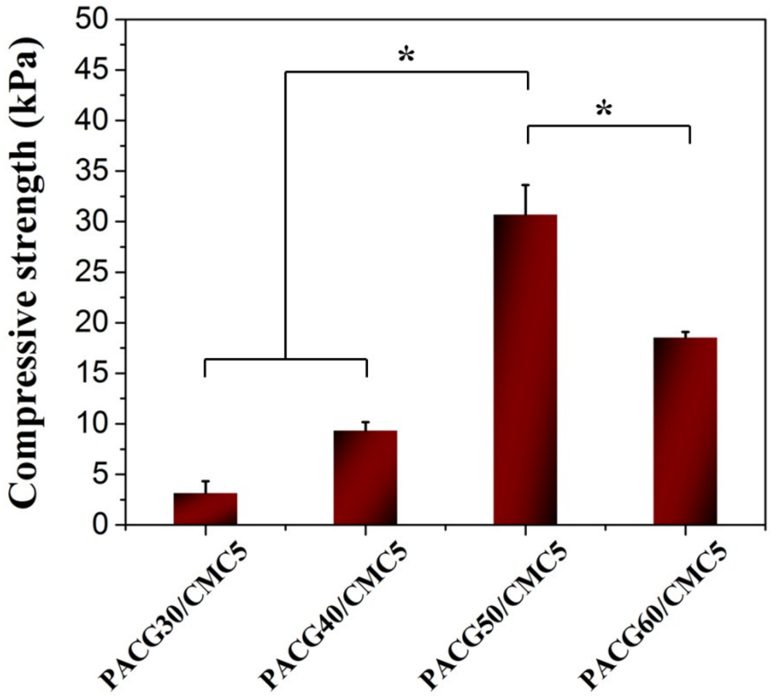


**Figure S7.** Compressive strength of PACG/CMC sponges with various ACG contents after absorbing water. Error bar indicates S.D. (n=3)

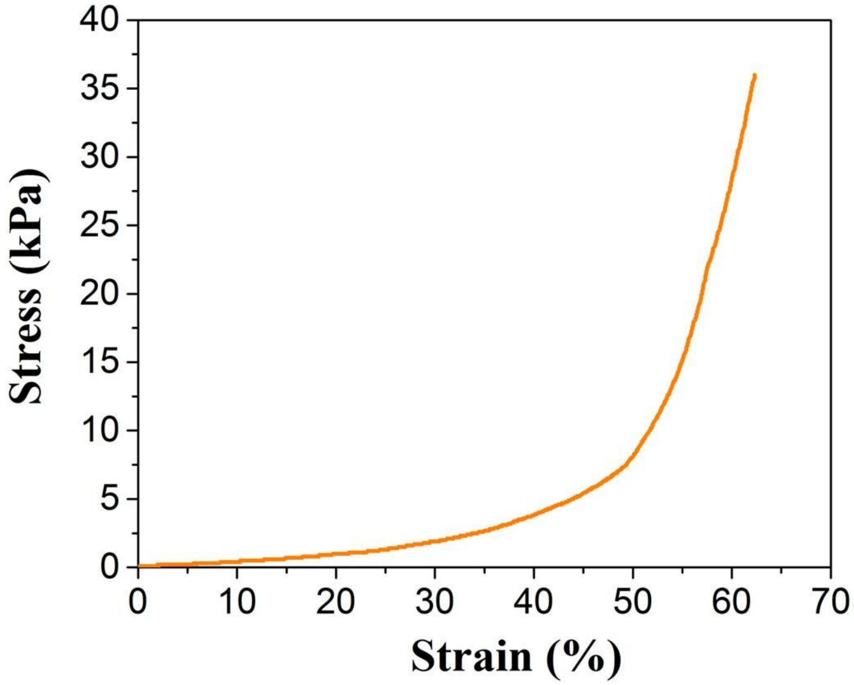


**Figure S8.** Compression stress-strain curves of PACG50/CMC5 sponge after absorbing rabbit whole blood.

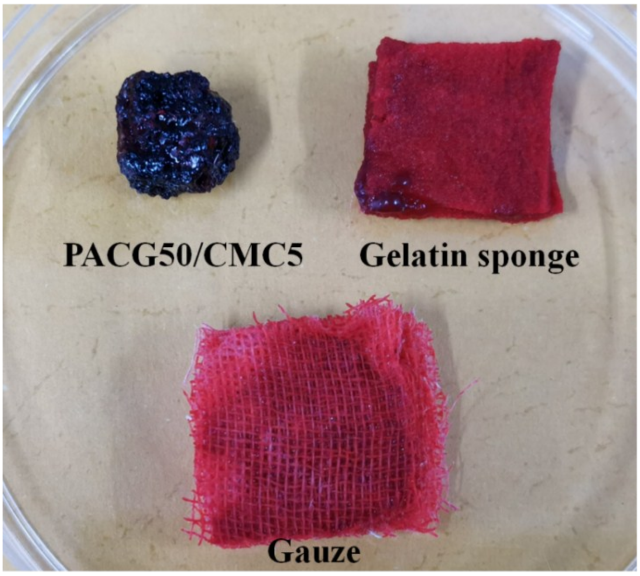


**Figure S9.** Digital photographs of gauze, gelatin sponge and PACG50/CMC5 sponge after absorbing blood for 1 h.

Movie S1. Instant water absorption ability of PACG50/CMC5 sponge.

Movie S2. Instant water absorption ability of commercial gelatin sponge.

Movie S3. 10-cycles compression process of PACG50/CMC5 sponge after absorbing water with a compression strain of 70%.

Movie S4. Hemostatic ability of gauze after treatment for 60 s in the rat liver injury model.

Movie S5. Hemostatic ability of commercial gelatin sponge after treatment for 60 s in the rat liver injury model.

Movie S6. Hemostatic ability of PACG50/CMC5 sponge after treatment for 60 s in the rat liver injury model.

Movie S7. Hemostatic ability of gauze with pressing for 90 s in the rat femoral artery injury model.

Movie S8. Hemostatic ability of commercial gelatin sponge with pressing for 90 s in the rat femoral artery injury model.

Movie S9. Hemostatic ability of PACG50/CMC5 sponge with pressing for 90 s in the rat femoral artery injury model.

Movie S10. Hemostatic ability of PACG50/CMC5 sponge with pressing for 2 min in the rabbit femoral artery injury model.