



Supplementary Figure 1. An example showing the penetration depth of fPAM in biological tissue. (A) Image of subcutaneous vessels in a Sprague-Dawley rat acquired *in vivo* without signal averaging. The pointed vessels are ~0.7 mm below the skin surface S. (B) Image of the same vessels shown in panel A acquired *in vivo* without signal averaging when the skin is covered by a chicken breast tissue slab. The vessels are now 3.3 mm below the top surface T of the tissue slab. Decreased signal-to-noise ratio is observed as expected. (C) Image after 40-time signal averaging. The signal-to-noise ratio is improved as anticipated. S: skin surface; V: blood vessels; T: top surface of chicken tissue.