

Supplementary Information

Ultrasound-assisted gatifloxacin delivery in mouse cornea, *in vivo*

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Supplementary Video & Legends

Supplementary Video 1: En-face TPM video of a gatifloxacin instilled *ex vivo* mouse cornea after 10-minute gatifloxacin incubation. (Corresponding to **Fig. 2(a-c)**)

The image size consists of 512×512 pixels covering a field-of-view (FOV) of $310 \mu\text{m} \times 310 \mu\text{m}$ with a stepwise increment of $2 \mu\text{m}$ along the z-axis. Imaging speed was 0.77 frames/s. Color coding for emission fluorescence was as follows: 455 ~ 680 nm (*green*).

Supplementary Video 2: En-face TPM video of an ultrasound treated and gatifloxacin instilled *ex vivo* mouse cornea after 10-minute gatifloxacin incubation. (Corresponding to **Fig. 2(d-f)**)

The image size consists of 512×512 pixels covering a field-of-view (FOV) of $310 \mu\text{m} \times 310 \mu\text{m}$ with a stepwise increment of $2 \mu\text{m}$ along the z-axis. Imaging speed was 0.77 frames/s. Color coding for emission fluorescence was as follows: 455 ~ 680 nm (*green*).

Supplementary Video 3: En-face TPM video of a gatifloxacin instilled *in vivo* mouse cornea after 10-minute gatifloxacin incubation. (Corresponding to **Fig. 3(a-c)**)

The image size consists of 512×512 pixels covering a field-of-view (FOV) of $310 \mu\text{m} \times 310 \mu\text{m}$ with a stepwise increment of $2 \mu\text{m}$ along the z-axis. Imaging speed was 0.77 frames/s. Color coding for emission fluorescence was as follows: 455 ~ 680 nm (*green*).

Supplementary Video 4: En-face TPM video of an ultrasound treated and gatifloxacin instilled *in vivo* mouse cornea after 10-minute gatifloxacin incubation. (Corresponding to **Fig. 3(d-f)**)

The image size consists of 512×512 pixels covering a field-of-view (FOV) of $310 \mu\text{m} \times 310 \mu\text{m}$ with a stepwise increment of $2 \mu\text{m}$ along the z-axis. Imaging speed was 0.77 frames/s. Color coding for emission fluorescence was as follows: 455 ~ 680 nm (*green*).