Development of two photon microscope and imaging systemfor evaluation of skin outlooks and functions after treatment.

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We visualized skin-lesions in living mice by two photon microscope, and observed inflammatory responses after scratch injuries. We also developed hand-held skin imaging device which can cover broad time-and-space scale. System can be minimized to hand-held size, and weighs less than 300g. This device can replace current pathological and radiographic examination, and daily outpatient skin lesion observations. Skin barrier or immune functions can be recorded with outlooks in real-time, after skin treatment or drug administrations.