Supplementary information

for the manuscript

Optical percutaneous needle biopsy in oncology

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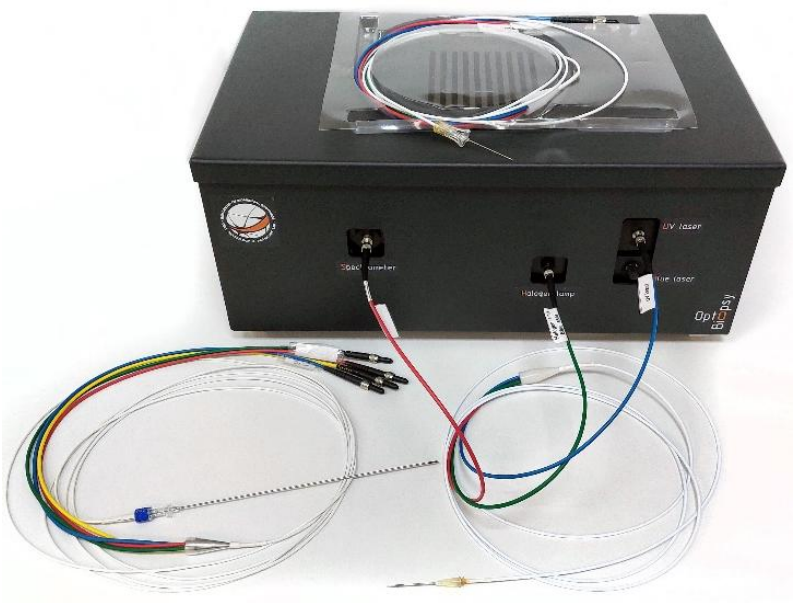


A

B

Figure S1. Intraoperative optical diagnostic systems: (A) fluorescence and diffuse reflectance spectroscopy system; (B) time-resolved fluorescence spectroscopy system.

Figure S2. Optical biopsy during standard percutaneous needle biopsy of liver neoplasms

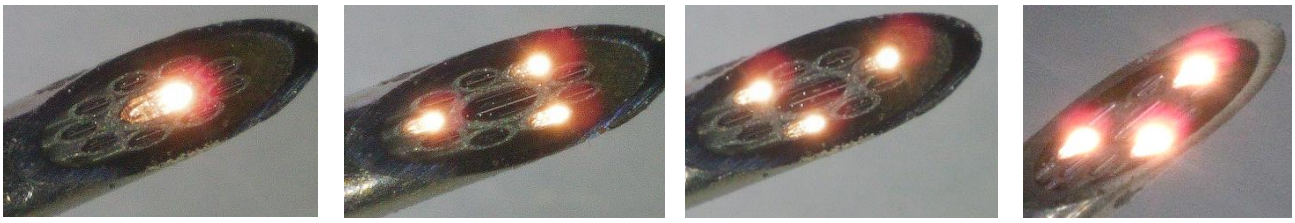
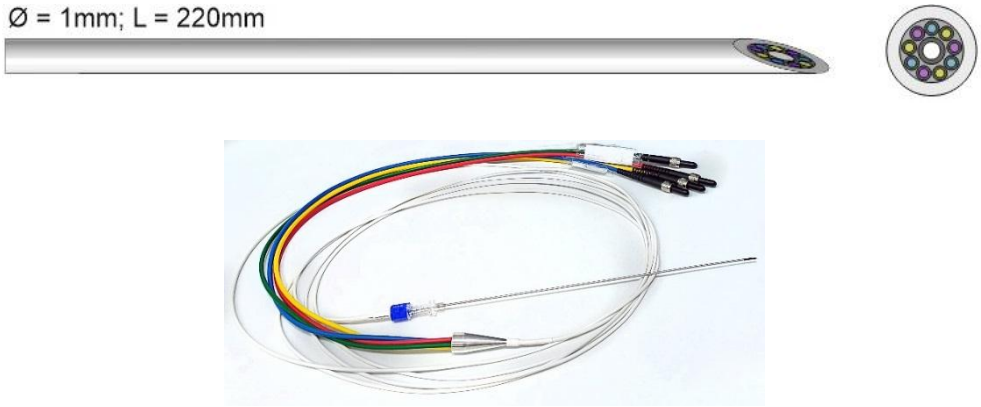


Figure S3. Performance testing of the channels of a fibre-optic probe compatible with Chiba 17.5 G puncture biopsy needles by sequentially connecting a white light source to 4 outputs (1 central receiving fibre and 3 illumination channels, 3 fibres each)



A

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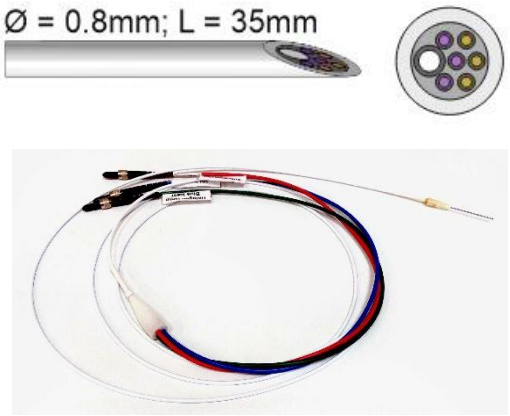

D

Figure S4. The photos of the different types of fine-needle fibre-optic probes described in the article: (A) the probe for liver biopsy, compatible with 17.5 G puncture needles; (B) the probe for pancreas biopsy, compatible with 21 G puncture needles; (C) the probe for breast biopsy, compatible with 19 G puncture needles; (D) the probe for breast biopsy without the puncture needle.