



Supplementary Materials for

Point-of-care quantification of blood-borne filarial parasites with a mobile phone microscope

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This PDF file includes:

Legends for movies S1 to S3

Other Supplementary Material for this manuscript includes the following:

(available at www.sciencetranslationalmedicine.org/cgi/content/full/7/286/286re4/DC1)

Movie S1 (.mov format). A video of whole blood taken with the CellScope Loa showing several wriggling *L. loa* mf.

Movie S2 (.mov format). A narrated movie of CellScope Loa operation.

Movie S3 (.mp4 format). A demonstration of the motion detection algorithm on CellScope Loa.

Supplementary Materials

MOVIE CAPTIONS

Movie S1: A video of whole blood taken with the CellScope Loa showing several wriggling *L. loa* mf. Whole blood from finger-prick was wicked into a glass capillary and visualized a mobile phone video microscope. The motion in the video is caused by live microfilariae that displace the surround blood cells.

Movie S2: A narrated movie of CellScope Loa operation. The steps involved with screening a blood sample for *L. loa* microfilariae are described and demonstrated, including loading the sample into the device, initiating the test with a custom app, automated operation of the device, and presentation of results on the mobile phone.

Movie S3: A demonstration of the motion detection algorithm on CellScope Loa. The operation of the app during sample imaging and video processing is shown, together with images of the key motion detection steps that are used to quantify the number of microfilariae per ml of whole blood.