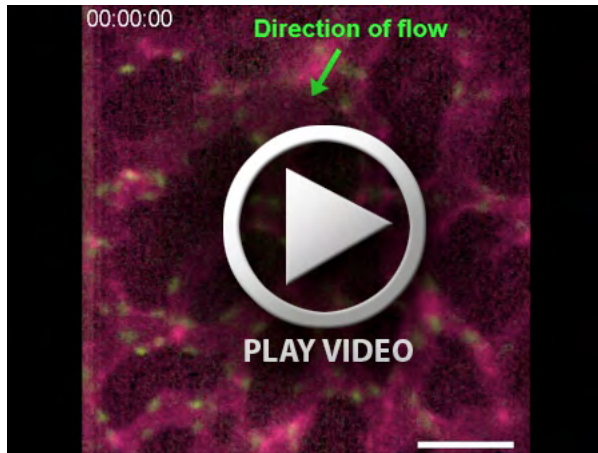




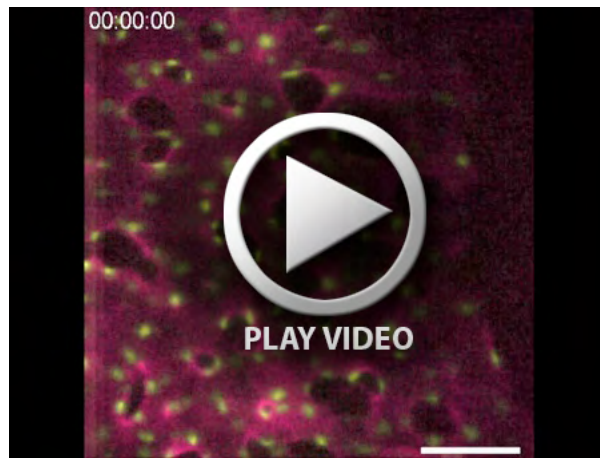
Movie 1. Proximal artery from *Mlc2a*^{+/+} yolk sac. Time-lapse movie capturing arterial yolk sac remodeling using *Flk1-myr::mCherry* and *Flk1-H2B::eYFP* transgenic embryos, starting at E8.5. Frame rate is one frame every ~6 minutes; total length of movie is 18 hours. Movies are annotated for the following, as applicable: direction of blood flow (green arrows), vessel fusion (white circle) and direction of EC migration (white arrows).



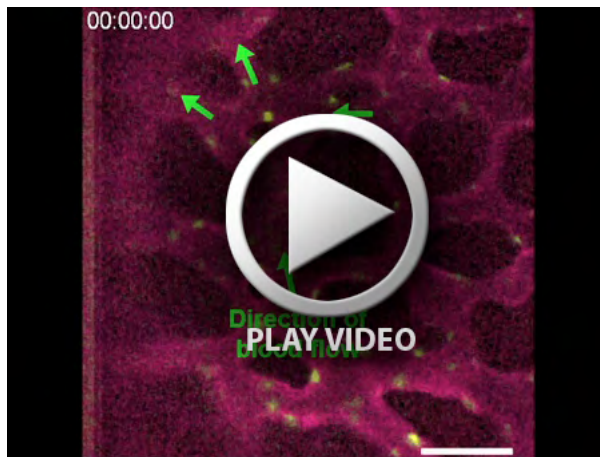
Movie 2. Proximal artery from *Mlc2a*^{+/+} yolk sac. Time-lapse movie frame rate is one frame every ~6 minutes; total length of movie is ~21 hours.



Movie 3. Proximal artery from *Mlc2a*^{+/+} yolk sac. Time-lapse movie capturing arterial remodeling, with notation of the direction of blood flow (from the top to the bottom of the movie). 499 nm laser power was used (to detect *Flk1-H2B::eYFP*, slowly increased over time). Frame rate is one frame every ~6 minutes; total length of movie is 21.4 hours.



Movie 4. Proximal artery from *Mlc2a*^{-/-} yolk sac. Time-lapse movie frame rate is one frame every ~6 minutes; total length of movie is 18.4 hours.



Movie 5. Proximal vein from *Mlc2a*^{+/+} yolk sac. Time-lapse movie capturing venous remodeling. Frame rate is one frame every ~7 minutes; total length of movie is 17.8 hours.



Movie 6. Distal capillaries from *Mlc2a*^{+/+} yolk sac. Time-lapse movie capturing remodeling of distal capillaries. Frame rate is one frame every ~8 minutes; total length of movie is 17.8 hours.