

**FITC/Suramin Harboring Silica Nanoformulations for
Cellular and Embryonic Imaging/Anti-Angiogenic
Theranostics**

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SUPPORTING INFORMATION

Supplementary Video 1: Live fluorescence imaging of 30 nm FITC loaded silica treated embryos.

The live fluorescence imaging of medaka embryos exposed to FITC-Si NPs can be seen in this video. The clear fluorescence from the embryos depicts the ability of FITC-Si to serve as efficient imaging cum diagnostic agent.

Supplementary Video 2: Heart beat and blood flow of 30 nm FITC loaded silica treated embryos.

The biocompatibility of the FITC-Si NPs can be confirmed from the viability of the embryo in the video. The well-developed heart that beats perfectly well and the blood flow through the vasculature can be clearly visualized. The embryos are transparent with no symptoms of nanoparticle aggregation on their surface. Well developed heart, vasculature, eyes can be clearly seen.

Supplementary Video 3: Anti-angiogenic assay - Bright field of Suramin loaded 30 nm silica treated hatched embryos - Blood clot, swollen air sac and bend body can be seen

When embryos are exposed to Sur-Si NPs, the embryos underwent developmental and hatching delay. In addition, due to vascular disruption by the anti-angiogenic drug Suramin, the vasculatures of the embryos are under-developed. The blood circulation is poor and one can observe blood being stagnant as a clot at certain regions. The swollen air sac and bend body are the other morphological deformations. In addition, the Sur-Si NP treated embryos that hatched are not active. They are weak and did not swim as well as that of hatched larvae of the control set.