

Supplementary information

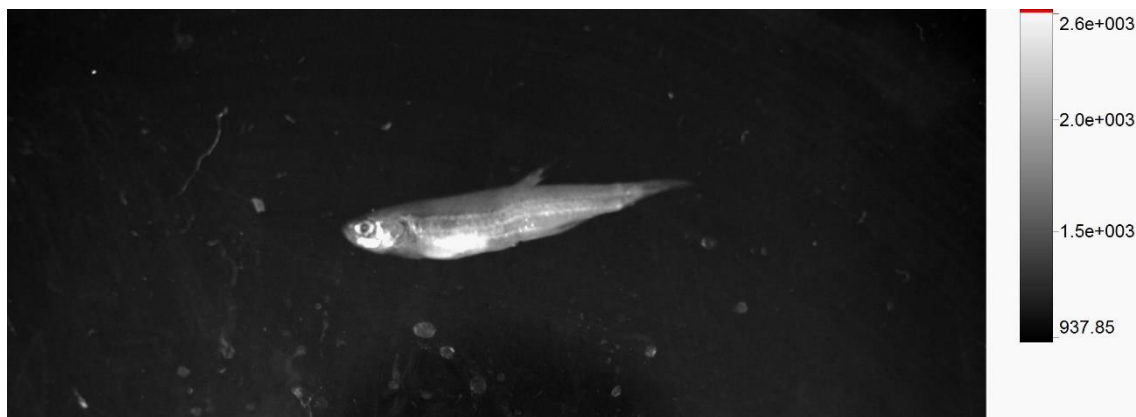
HV	spot	mag	WD	det	tilt	HFV	3 μ m CM_UFMG_DualBeam
5.00 kV	4.5	35 000 x	10.5 mm	ETD	-0 °	8.53 μ m	

Micrographs of NPMAs. Data For scanning electron microscopy (SEM),

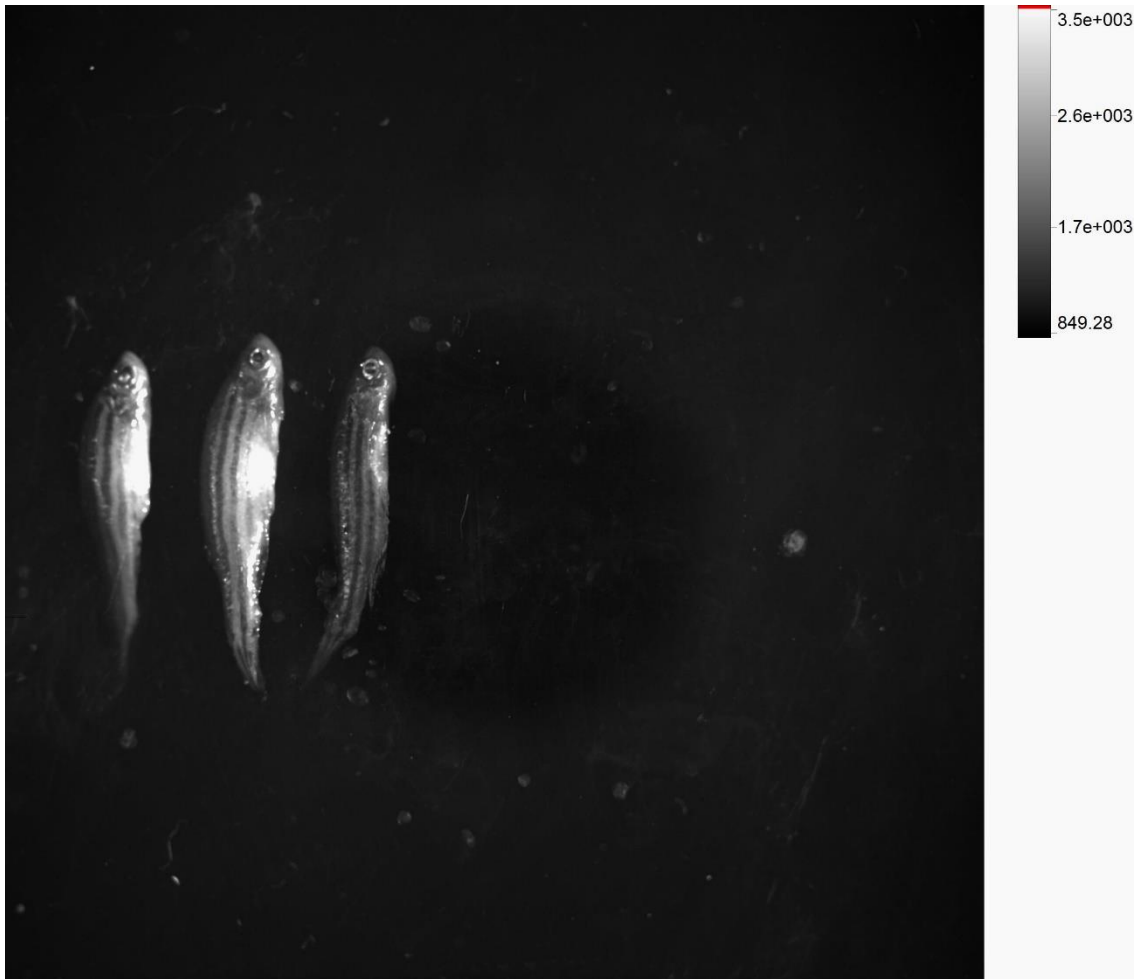
Table. Initial values of mean diameter (nm), polydispersity index (PDI), zeta potential and encapsulation efficiency of nanosuspensions: NP (content benzocaine), NP-control, NPMA (content benzocaine) and NPMA-control (n=5).

sParticles	Mean diameter (nm); (PDI)	Zeta potential (mV)	BENZ encapsulation (%)	Concentration (particles.mL ⁻¹)
NP	249 \pm 2 (0.14 \pm 0.02)	- 25.5 \pm 1.4	84.8 \pm 1.2	1.1 x 10 ¹⁷ \pm 4 x 10 ¹⁶
NP-control	200 \pm 1 (0.15 \pm 0.03)	-19.5 \pm 0.8	-	1.4 x 10 ¹⁷ \pm 1 x 10 ¹⁶
NPMA	297 \pm 5 (0.18 \pm 0.01)	+44.3 \pm 0.5	72.1 \pm 0.9	1.2 x 10 ¹⁷ \pm 2 x 10 ¹⁶
NPMA-control	263 \pm 2 (0.19 \pm 0.01)	+46.7 \pm 1.1	-	1.3 x 10 ¹⁷ \pm 1 x 10 ¹⁶

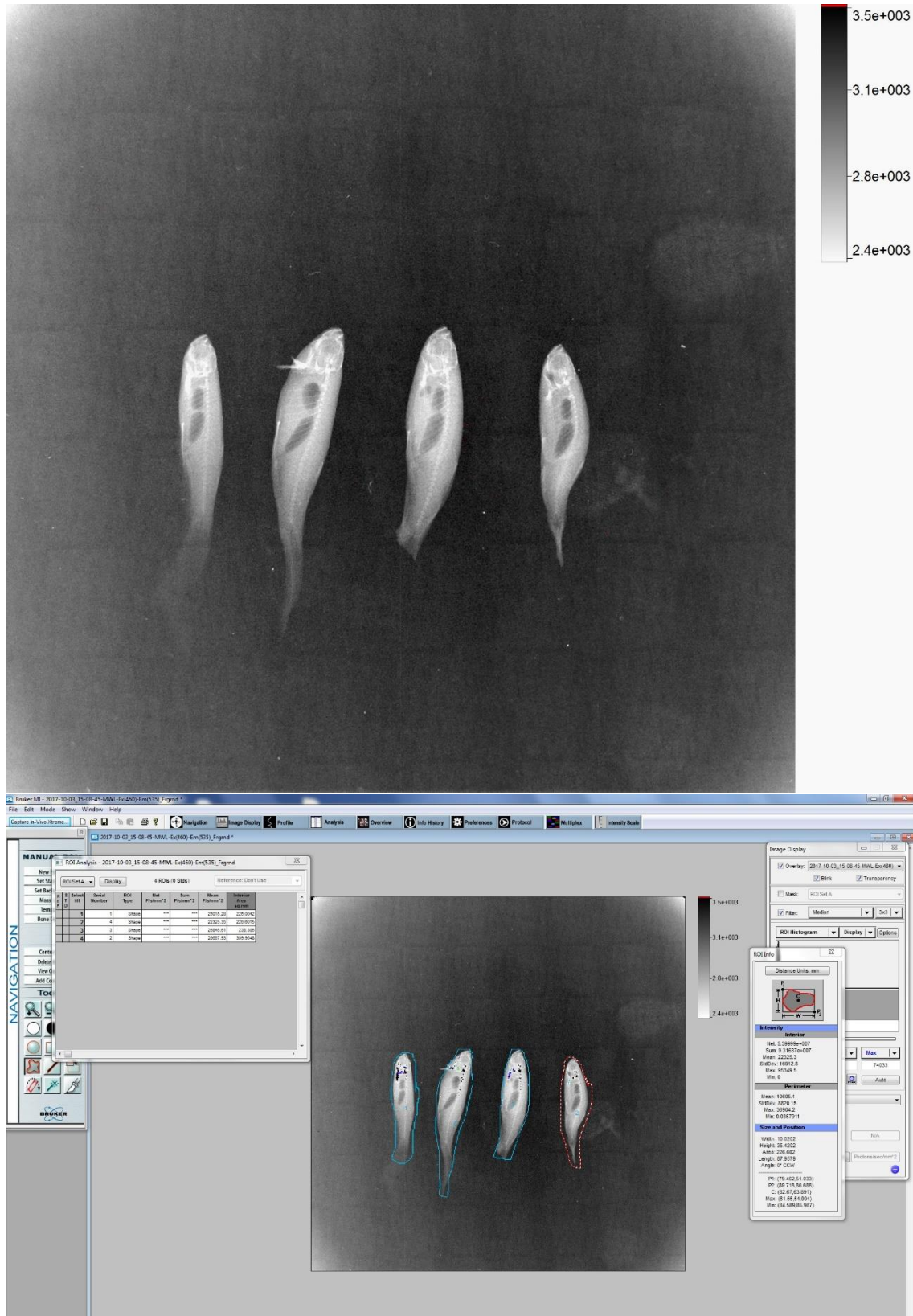
Interaction between mucoadhesive nanocapsules and zebrafish. *In vivo* fluorescence images of zebrafish exposes to NPMAs.



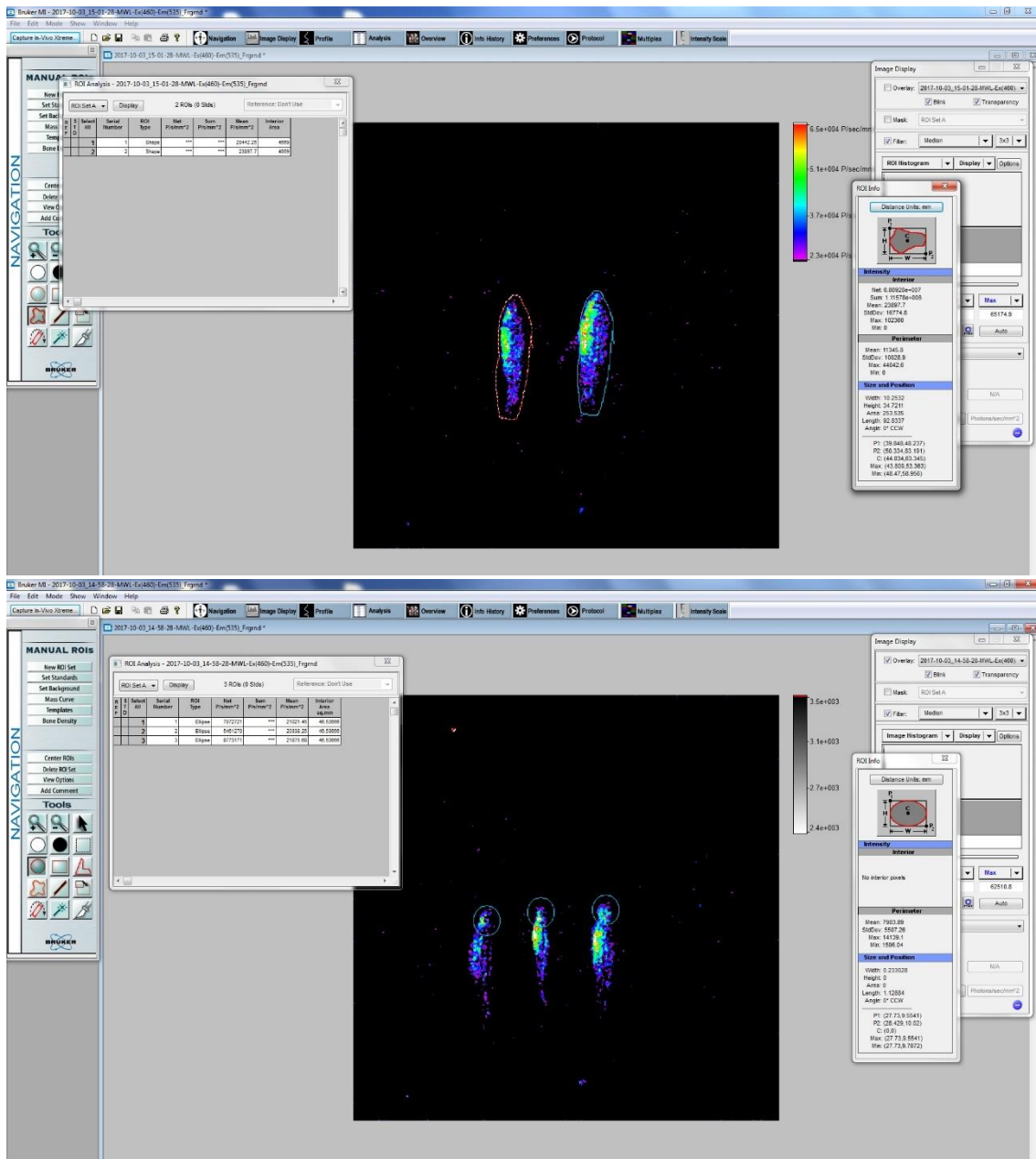
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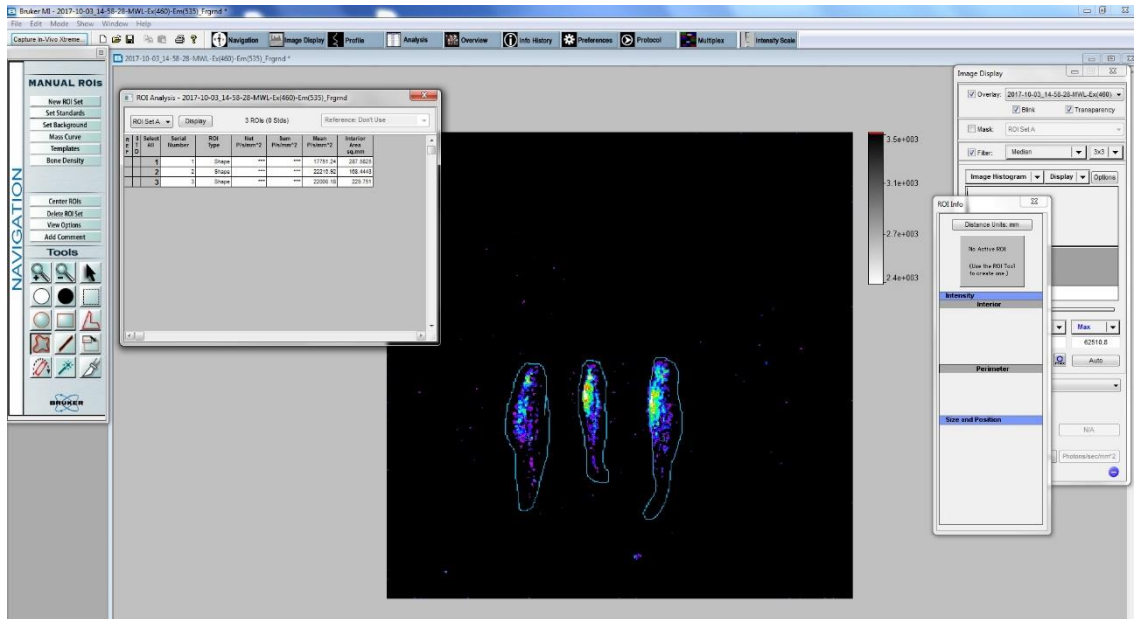
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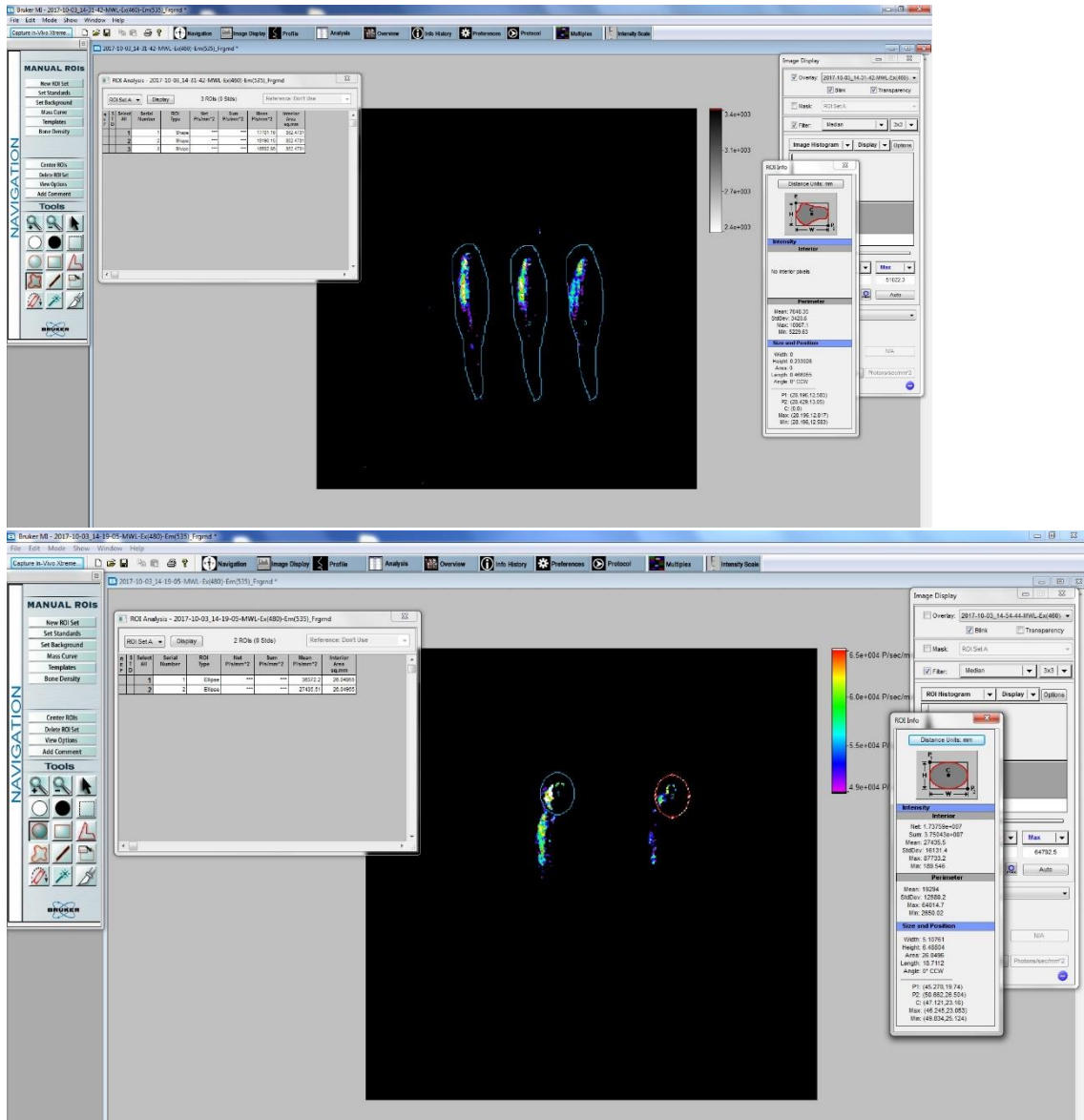
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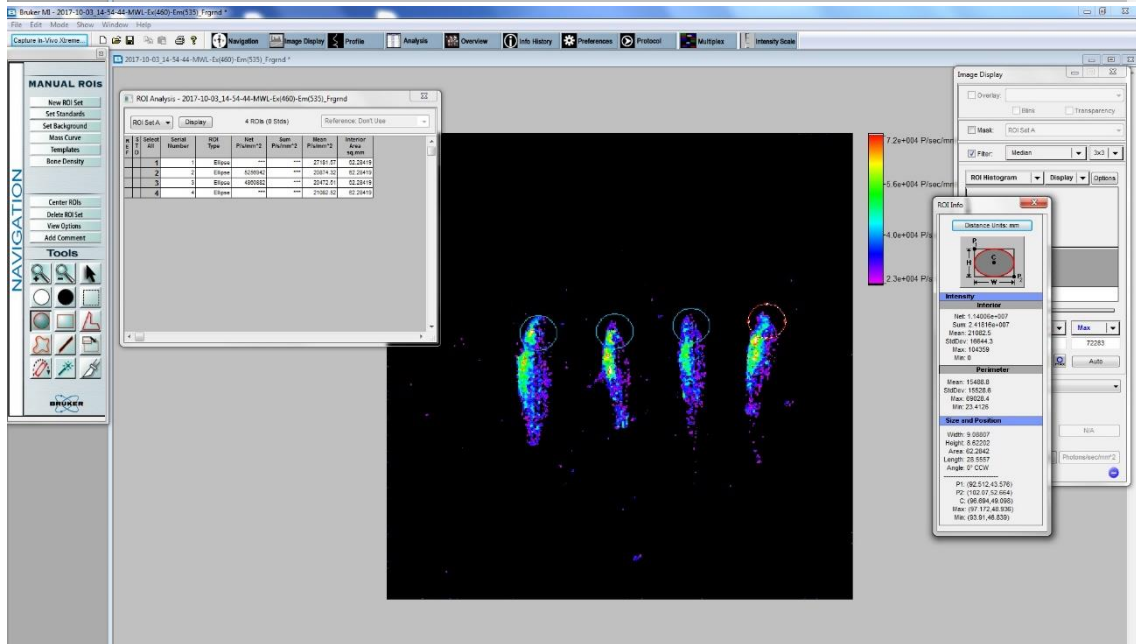
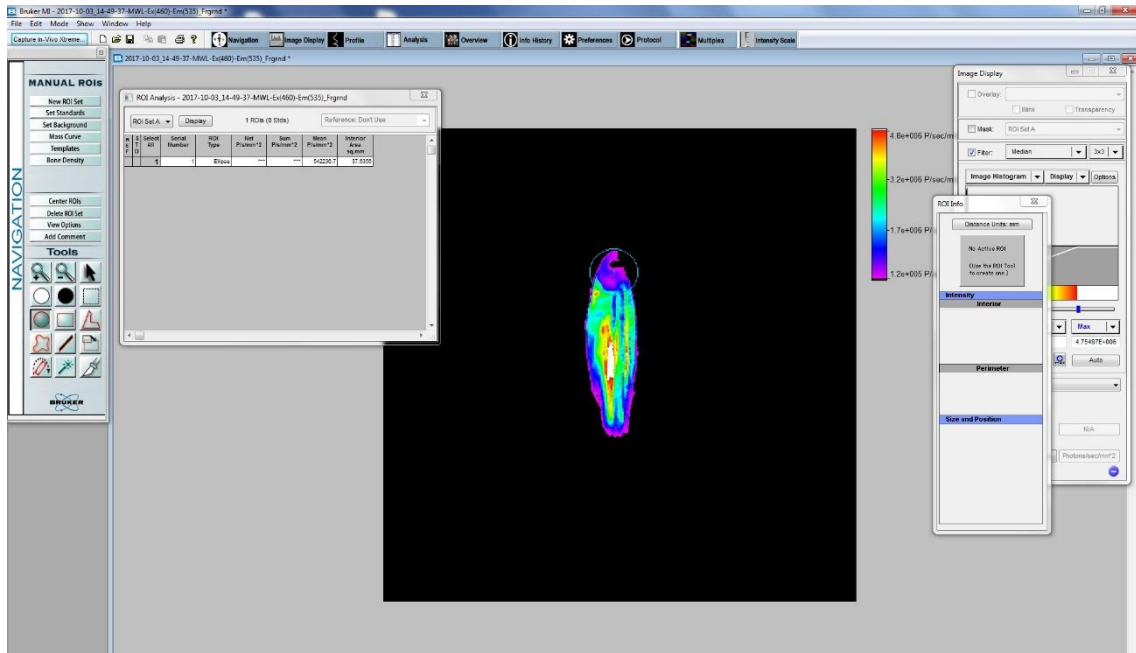
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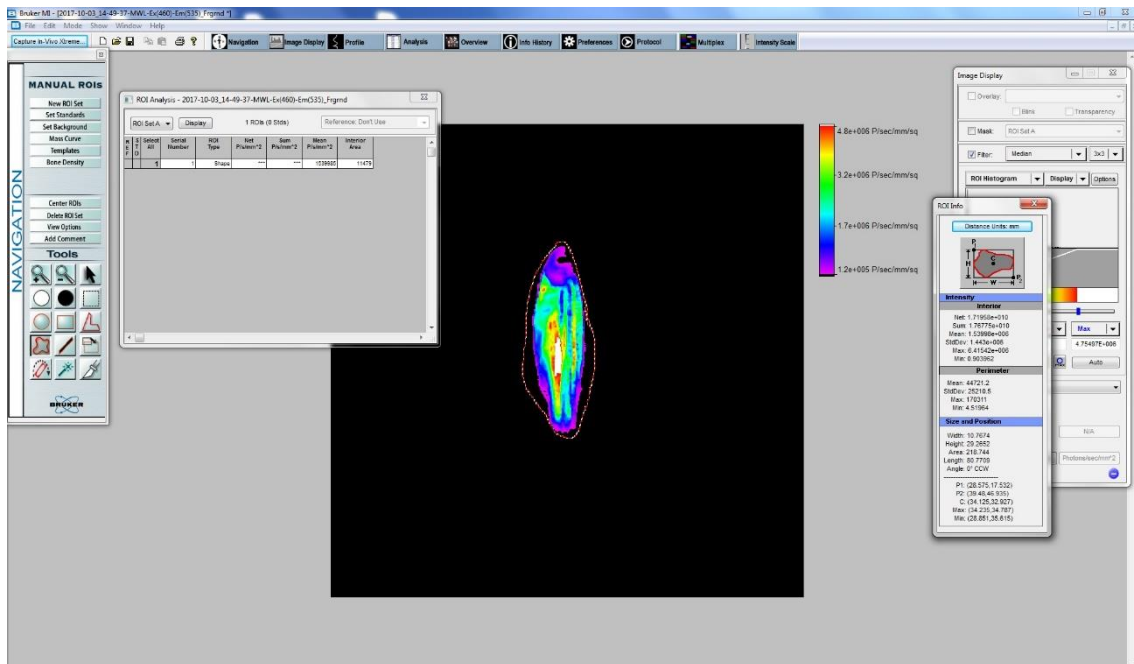
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Survival percentage of embryos exposed to free BENZ and encapsulated in nanocapsules.

Outcomes:		Live =0	Dead =1											
Artemisin														
0.125 (mg/l)	Hours	0.25 (mg/l)	Hours	0.5 (mg/l)	Hours	1.0 (mg/l)	Hours	1.0 (mg/l)	Hours	CT(+)	Hours	CT(-)	Hours	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	1	24	0	96	0	96	1	24	0	96	
1	24	0	96	0	96	0	96	0	96	1	96	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	72	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	1	24	0	96	0	96	0	96	1	24	0	96	
0	96	0	96			0	96	0	96	1	24	0	96	
NP														
0.125 (mg/l)	Hours	0.25 (mg/l)	Hours	0.5 (mg/l)	Hours	1.0 (mg/l)	Hours	1.0 (mg/l)	Hours	CT(+)	Hours	CT(-)	Hours	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	96	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	1	24	0	96	1	72	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
0	96	0	96	0	96	0	96	0	96	1	24	0	96	
Artemisin+NP														
0.125 (mg/l)	Hours	0.25 (mg/l)	Hours	0.5 (mg/l)	Hours	1.0 (mg/l)	Hours	1.0 (mg/l)	Hours	CT(+)	Hours	CT(-)	Hours	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
1	24	0	96	0	96	0	96	0	96	1	96	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	72	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	1	24	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	1	24	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	
0	96	0	96	0	96	0	96	0	96	1	24	96	0	