

Magnetic nanoparticles: a strategy to target the choroidal layer in the posterior segment of the eye

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Supplementary materials

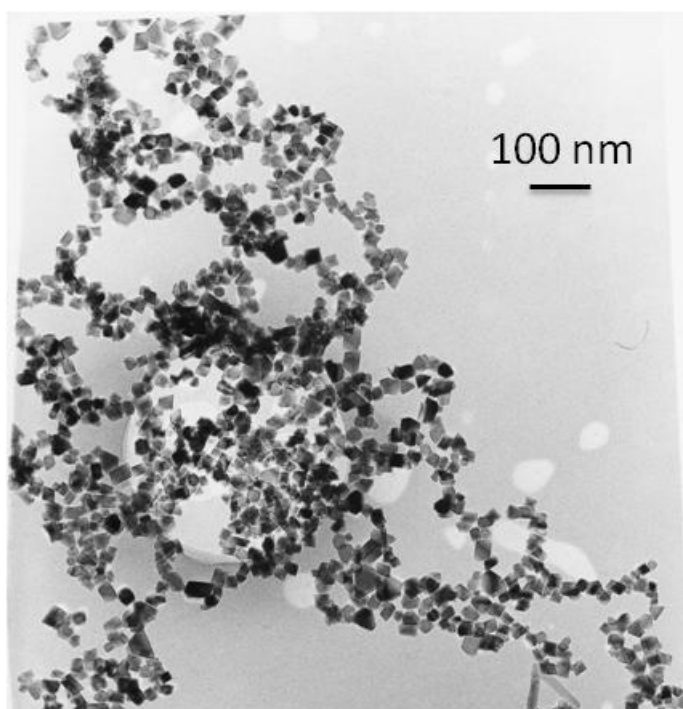
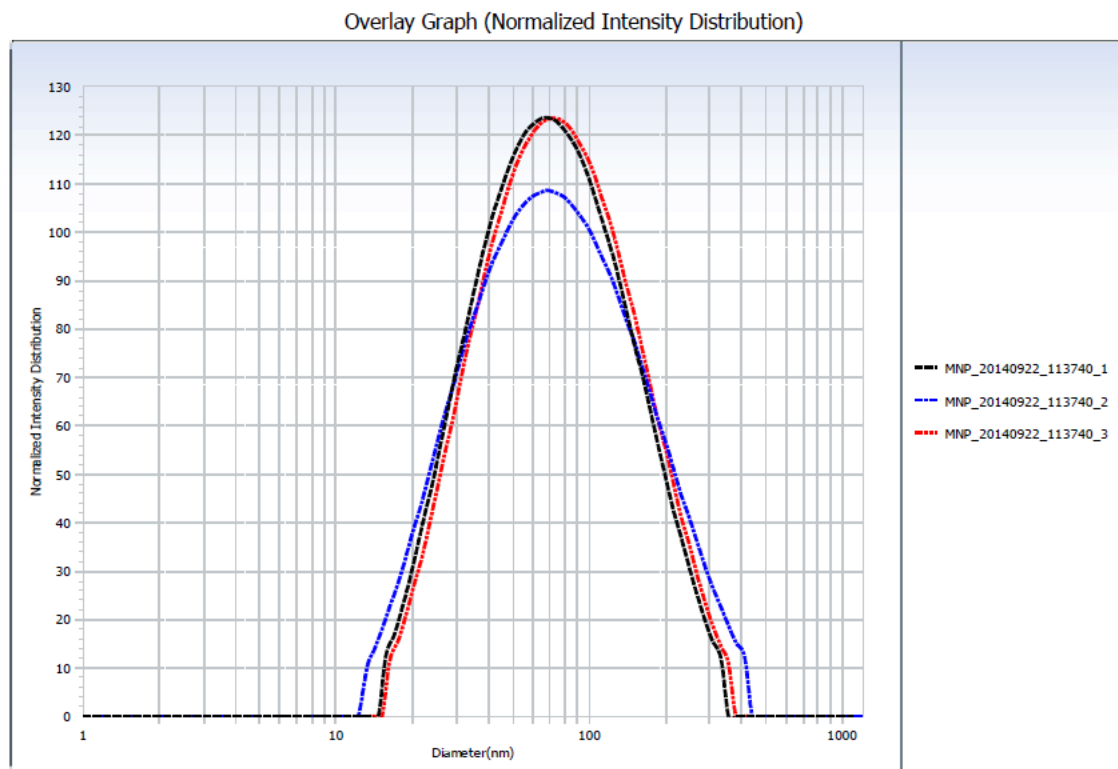


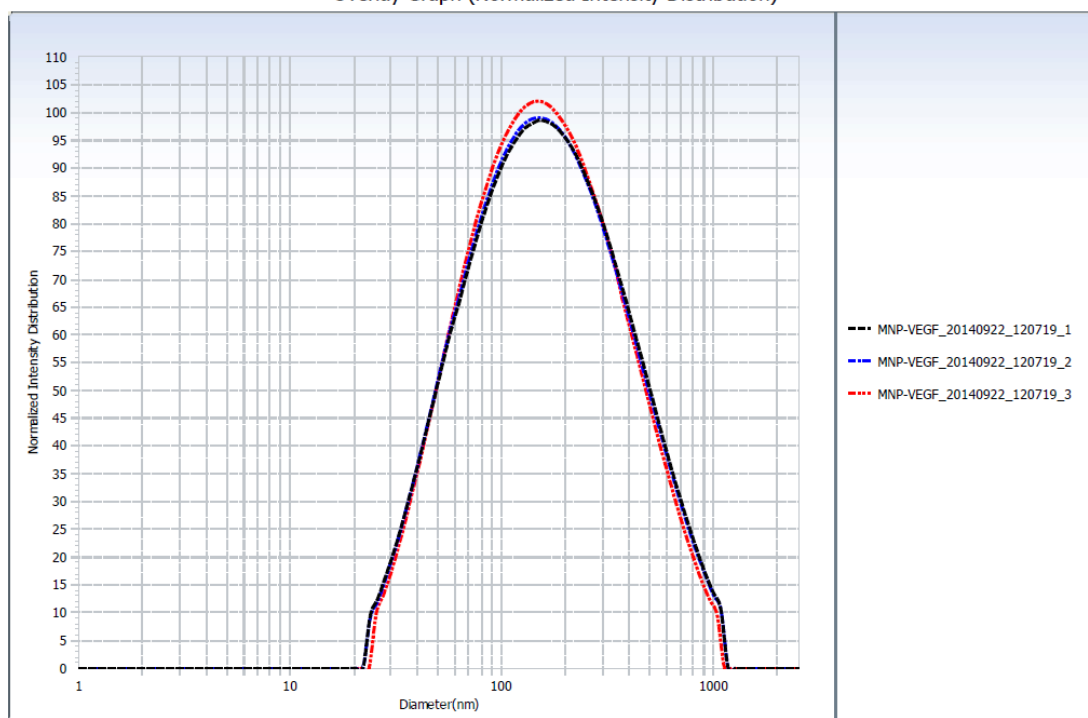
Figure S1: Commercial MNP produced by Micromod (79-02-501, nanomag[®] -D -spio)



No	Data	Repet. No	pH	Ave. Diameter(nm)	Polvdispersitv Index	D (10%) (nm)	D (50%) (nm)	D (9
1	MNP_20140922_113740_1	1	NA	60.8	0.231	27.8	67.1	
2	MNP_20140922_113740_2	2	NA	59.4	0.309	25.3	68.8	
3	MNP_20140922_113740_3	3	NA	63.1	0.250	29.3	71.1	

Figure S2: DLS analysis of MNP samples

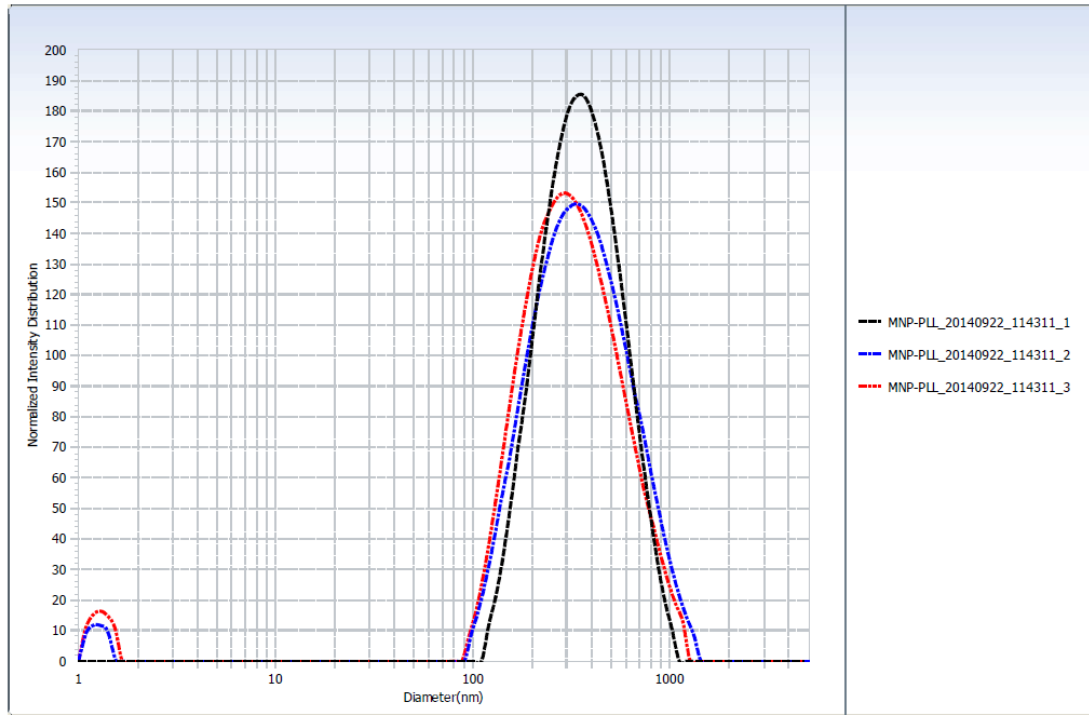
Overlay Graph (Normalized Intensity Distribution)



No	Data	Repet. No	pH	Ave. Diameter(nm)	Polydispersity Index	D (10%) (nm)	D (50%) (nm)	D (90%) (nm)
1	MNP-VEGF_20140922_120719_1	1	NA	128.9	0.302	49.8	151.4	475.7
2	MNP-VEGF_20140922_120719_2	2	NA	128.6	0.294	49.9	150.0	471.6
3	MNP-VEGF_20140922_120719_3	3	NA	128.2	0.286	51.0	148.2	452.2

Figure S3: DLS analysis of MNP-rVEGF samples

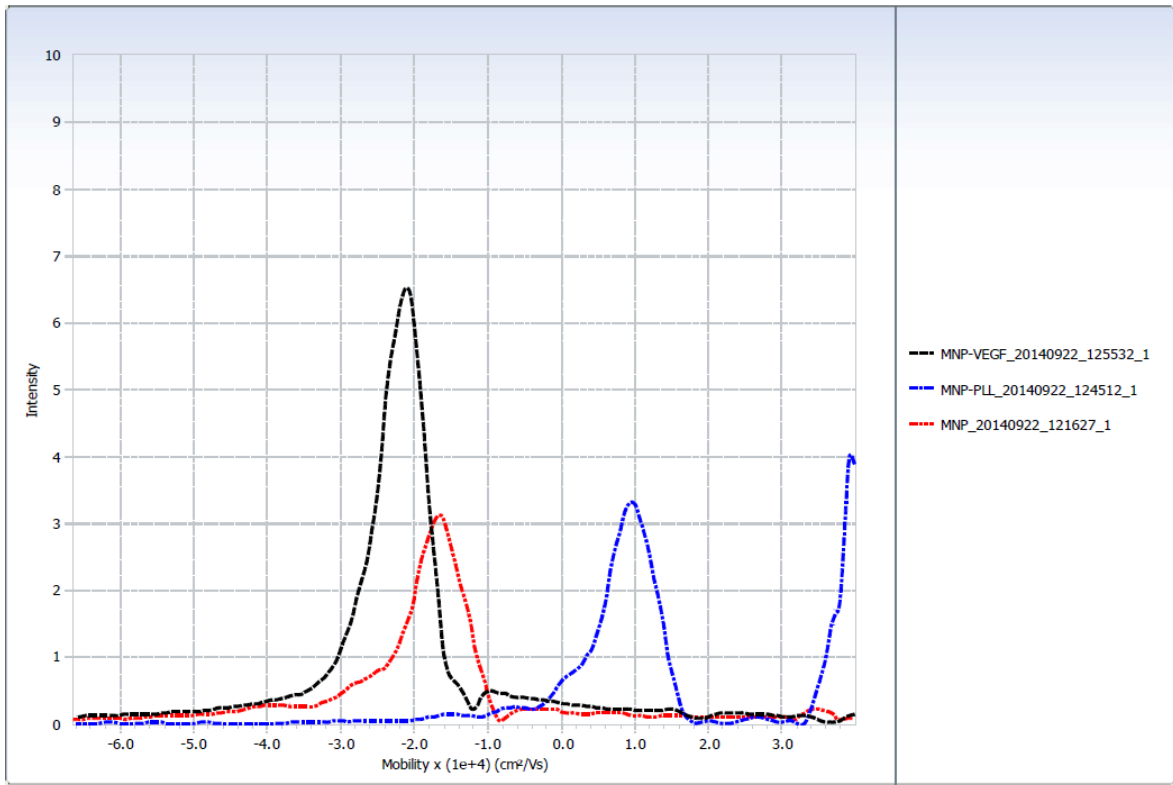
Overlay Graph (Normalized Intensity Distribution)



No	Data	Repet. No	pH	Ave. Diameter(nm)	Polydispersity Index	D (10%) (nm)	D (50%) (nm)	D (90%) (nm)
1	MNP-PLL_20140922_114311_1	1	NA	318.0	0.171	183.9	334.8	611.7
2	MNP-PLL_20140922_114311_2	2	NA	300.5	0.235	154.2	324.6	693.0
3	MNP-PLL_20140922_114311_3	3	NA	279.0	0.247	141.8	291.6	625.2

Figure S4: DLS analysis of MNP-PLL samples

Overlay Graph



No	File Name	Repet. No	MeasTime	pH	Zeta Potential (mV)	Mobility (cm ² /Vs)	E. Field (V/cm)
1	MNP-VEGF_20140922_125532	1	12:55:32	NA	-32.49	-2.164e-004	-77.80
2	MNP-PLL_20140922_124512	1	12:45:12	NA	14.04	9.376e-005	-77.79
3	MNP_20140922_121627	1	12:16:27	NA	-25.59	-1.695e-004	-77.76

Figure S5: Z potential analysis of MNP (red), MNP-rVEGF (black) and MNP-PLL (blue) samples.

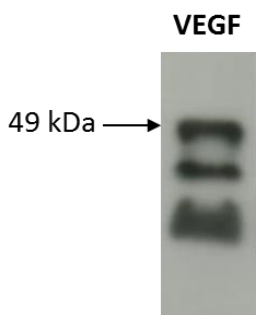


Figure S6: Western blot of purified rVEGF using an antibody against VEGF (sc-507 Santa Cruz, dilution 1:200). The rVEGF has a molecular weight of 49 kDa while the other bands are possibly generated by truncated forms of the fusion protein.

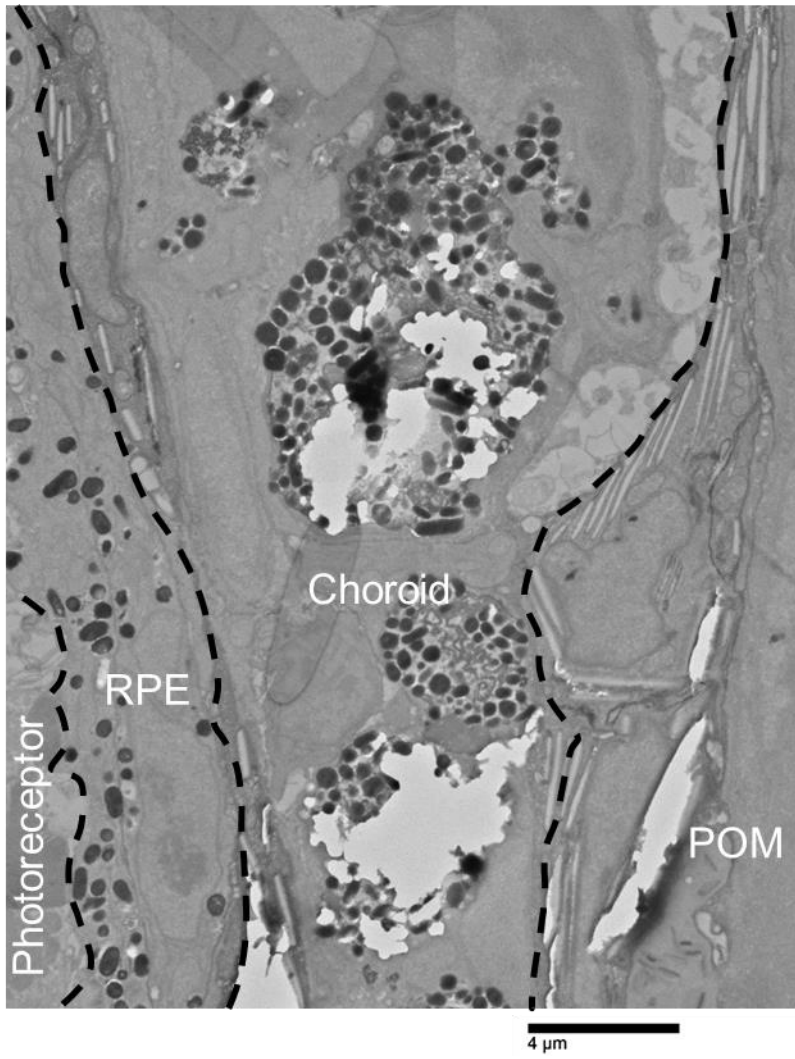


Figure S7: TEM image of an ultrathin section of zebrafish larva eye 72hpf. The photoreceptor, the RPE and the choroid layers are marked in the image. POM: perioocular mesenchyme.