

## Electronic Supplementary Information

**The endocrine disruptor effect of metal nanoparticles mainly depends on their capacity to release metal ions.**

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**Table S1:** Hydrodynamic diameters and polydispersity index from DLS of both types of NP in water and in different relevant cell culture media, alone or in the presence of different compounds used for cell culture experiments. Zeta potential for both types of NP determined in diluted PBS.

	solvent	Main peak		Secondary peak		Zeta potential (mV)
		diameter (nm)	PDI (%)	diameter (nm)	PDI (%)	
AgNP	H2O	52.6	6.3			-16.3
	H2O+T3 (100nM)	54	9.8			-7.9
	H2O + 15µM amiodarone	70.6	12.6			-3.8
	MEM-SVF	61.4	25.5			
	MEM-SVF+T3(100nM)	60.2	22.6			
	MEM-SVF+15µM amiodarone	63	10.8			
	H2O+1%DMSO	58.2	19.5			-12.9
	H2O+1%DMSO+0,1nM 17-MT	57.8	13.2			-3.3
	H2O+1%DMSO+1mg/ml anastrozole	54.8	10.3			-2.9
	H2O+1%DMSO+5µM linuron	58.8	14.5			-16.4
	DMEM-F12+SVF+1%DMSO	67.6	17.2			
	DMEM-F12+SVF+1%DMSO+17-MT 10nM	70.6	11.1			
	DMEM-F12+SVF+1%DMSO+1mg/ml anast	68.8	19.2			
	DMEM-F12+SVF+1%DMSO+5µM linuron	69.4	16.5			
	H2O+1%DMSO+10pM TCDD	55.8	11.3			-16.0
	H2O+1%DMSO+1µM luteolin	58	11.9			-15.9
	MEMalpha 5%SVF	61.6	10.3			
	MEMalpha 5%SVF+10pMTCDD	61.4	10.5			
MEMalpha 5%SVF+1µM luteolin	59.2	12.4				
TiO <sub>2</sub> -NP	H2O	200.6	11.4			-38.3
	H2O+T3 (100nM)	216.6	23.5			-42.0
	H2O+15µM amiodarone	207	28.5			-6.8
	MEM-SVF	1204	48.4			
	MEM-SVF+T3(100nM)	990	51			
	MEM-SVF+15µM amiodarone	polydisperse (100 nm to several µm)				
	H2O+1%DMSO	203.8	28.4			-25.1
	H2O+1%DMSO+0,1nM 17-MT	200.4	27.9	a bit of µm		-20.4
	H2O+1%DMSO+1mg/ml anastrozole	210.2	11	a bit of µm		-21.4
	H2O+1%DMSO+5µM linuron	231	23.2			-23.7
	DMEM-F12+SVF+1%DMSO	491.6	15	a bit of µm		
	DMEM-F12+SVF+1%DMSO+17-MT 10nM	polydisperse (100 nm to several µm)				
	DMEM-F12+SVF+1%DMSO+1mg/ml anast	polydisperse (100 nm to several µm)				
	DMEM-F12+SVF+1%DMSO+5µM linuron	polydisperse with a main peak around 200-300 nm				
	H2O+1%DMSO+10pM TCDD	184.6	23			-26.4
	H2O+1%DMSO+1µM luteolin	205.4	29.1			-27.2
	MEMalpha 5%SVF	200-400 nm	polydisperse	1-3 µm	polydisperse	
	MEMalpha 5%SVF+10pMTCDD	200-400 nm	polydisperse	1-3 µm	polydisperse	
MEMalpha 5%SVF+1µM luteolin	300-350 nm	39.5	polydisperse			

	HEK293T cells (Thyroid pathway)	AR-EcoScreen cells (Androgen pathway)	DR-EcoScreen cells (Aryl hydrocarbon pathway)
AgNP	675 ± 65 μM	330 ± 53 μM	> 400 μM
TiO <sub>2</sub> -NP	323 ± 25 μg/mL	90 ± 10 μg/mL	98 ± 32 μg/mL
AgNO <sub>3</sub>	21 ± 3 μM	-	-

**Table S2** Determination of the dose lethal for 50% of the cells (LD50) based on Trypan blue assay for the cell types used for each assay.