

## Supplementary information

Table S1. Ease of identification of the tattooed lymph nodes. According to the identification scale described in Figure 2 of the main body of the manuscript.

Lymph node	Study	Concentration	Ease of identification
1	Short-term	20 mg/ml	3
2	Short-term	20 mg/ml	3
3	Short-term	20 mg/ml	3
4	Short-term	20 mg/ml	1
5	Short-term	20 mg/ml	3
6	Short-term	20 mg/ml	3
7	Short-term	20 mg/ml	3
8	Short-term	20 mg/ml	1
9	Short-term	20 mg/ml	2
10	Short-term	20 mg/ml	1
11	Long-term	20 mg/ml	3
12	Long-term	20 mg/ml	3
13	Long-term	20 mg/ml	3
14	Long-term	20 mg/ml	2
15	Long-term	20 mg/ml	3
16	Long-term	20 mg/ml	1
17	Long-term	10 mg/ml	3
18	Long-term	10 mg/ml	2
19	Long-term	10 mg/ml	1
20	Long-term	10 mg/ml	3
21	Long-term	10 mg/ml	1
22	Long-term	10 mg/ml	2
23	Long-term	10 mg/ml	2
24	Long-term	10 mg/ml	1
25	Long-term	10 mg/ml	1

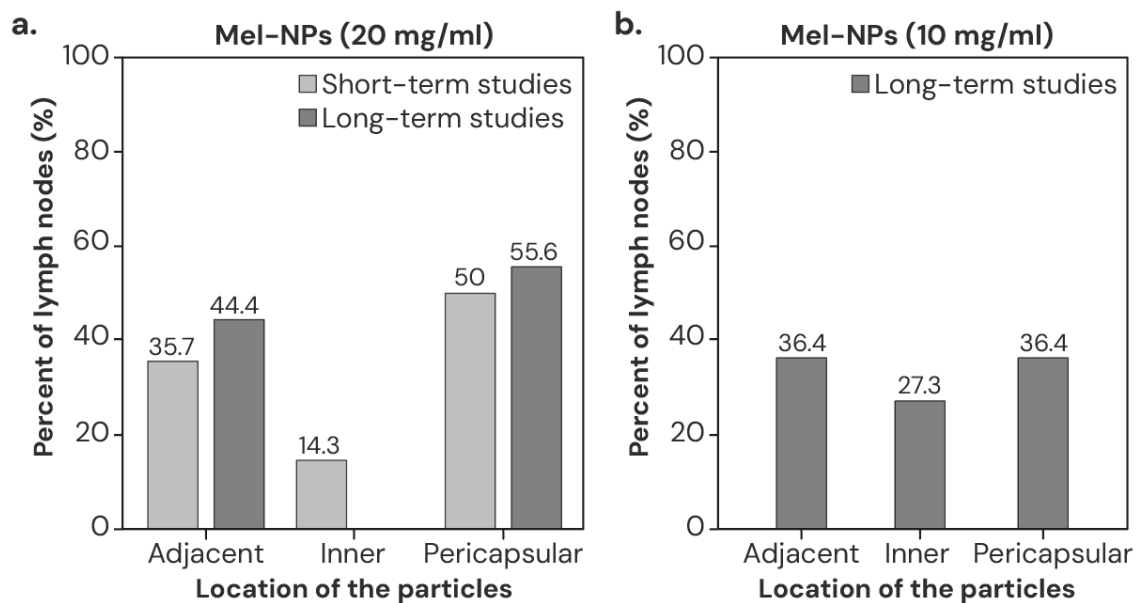


Figure S1. Percentage of lymph nodes with adjacent, inner or pericapsular localization of Mel-NPs.

Table S2. Localization of Mel-NPs in the lymph nodes. According to the localization description showed in Figure 2 of the main body of the manuscript.

Lymph node	Study	Concentration	Location		
			Adjacent	Pericapsular	Inner
1	Short-term	20 mg/ml	x	x	
2	Short-term	20 mg/ml	x	x	
3	Short-term	20 mg/ml			x
4	Short-term	20 mg/ml	x		
5	Short-term	20 mg/ml	x	x	
6	Short-term	20 mg/ml	x	x	x
7	Short-term	20 mg/ml		x	
8	Short-term	20 mg/ml		x	
9	Short-term	20 mg/ml		x	
10	Short-term	20 mg/ml	<i>Mel-NPs were not identified</i>		
11	Long-term	20 mg/ml	x	x	
12	Long-term	20 mg/ml	x	x	
13	Long-term	20 mg/ml	x	x	
14	Long-term	20 mg/ml	x	x	
15	Long-term	20 mg/ml		x	
16	Long-term	20 mg/ml	<i>Mel-NPs were not identified</i>		
17	Long-term	10 mg/ml	x	x	
18	Long-term	10 mg/ml	x	x	x
19	Long-term	10 mg/ml			x
20	Long-term	10 mg/ml	x	x	
21	Long-term	10 mg/ml			x
22	Long-term	10 mg/ml	x		
23	Long-term	10 mg/ml		x	
24	Long-term	10 mg/ml	<i>Mel-NPs were not identified</i>		
25	Long-term	10 mg/ml	<i>Mel-NPs were not identified</i>		

Table S3. Extent of inflammation maximum length in the lymph nodes. Note that some nodes were not counted due to rupture of nodal tissue during surgical resection or sample processing.

Lymph node	Study	Concentration	Extent of inflammation
1	Short-term	20 mg/ml	265 $\mu$ m
2	Short-term	20 mg/ml	221 $\mu$ m
3	Short-term	20 mg/ml	487 $\mu$ m
4	Short-term	20 mg/ml	205 $\mu$ m
5	Short-term	20 mg/ml	1076 $\mu$ m
6	Short-term	20 mg/ml	592 $\mu$ m
7	Short-term	20 mg/ml	153 $\mu$ m
8	Short-term	20 mg/ml	316 $\mu$ m
9	Short-term	20 mg/ml	264 $\mu$ m
10	Short-term	20 mg/ml	-
11	Long-term	20 mg/ml	548 $\mu$ m
12	Long-term	20 mg/ml	611 $\mu$ m
13	Long-term	20 mg/ml	828 $\mu$ m
14	Long-term	20 mg/ml	258 $\mu$ m
15	Long-term	20 mg/ml	355 $\mu$ m

16	Long-term	20 mg/ml	-
17	Long-term	10 mg/ml	490 $\mu\text{m}$
18	Long-term	10 mg/ml	84 $\mu\text{m}$
19	Long-term	10 mg/ml	213 $\mu\text{m}$
20	Long-term	10 mg/ml	224 $\mu\text{m}$
21	Long-term	10 mg/ml	388 $\mu\text{m}$
22	Long-term	10 mg/ml	358 $\mu\text{m}$
23	Long-term	10 mg/ml	189 $\mu\text{m}$
24	Long-term	10 mg/ml	-
25	Long-term	10 mg/ml	-

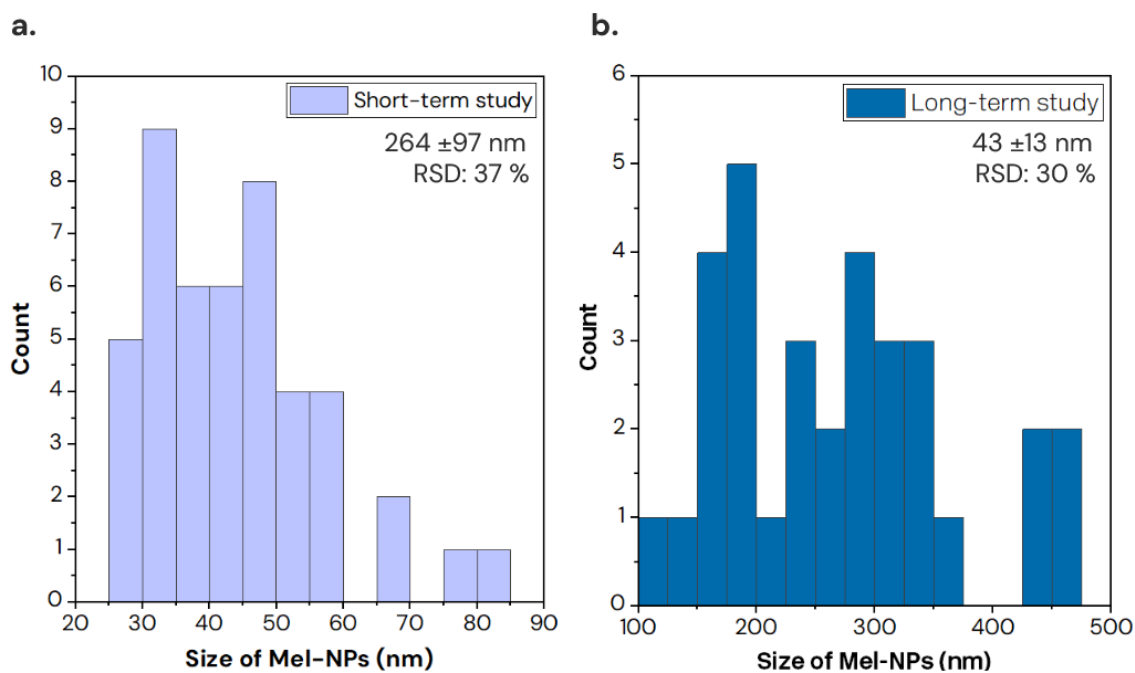


Figure S2. Diameter distribution histograms of Mel-NPs in the short and in long-term studies *in vivo*.