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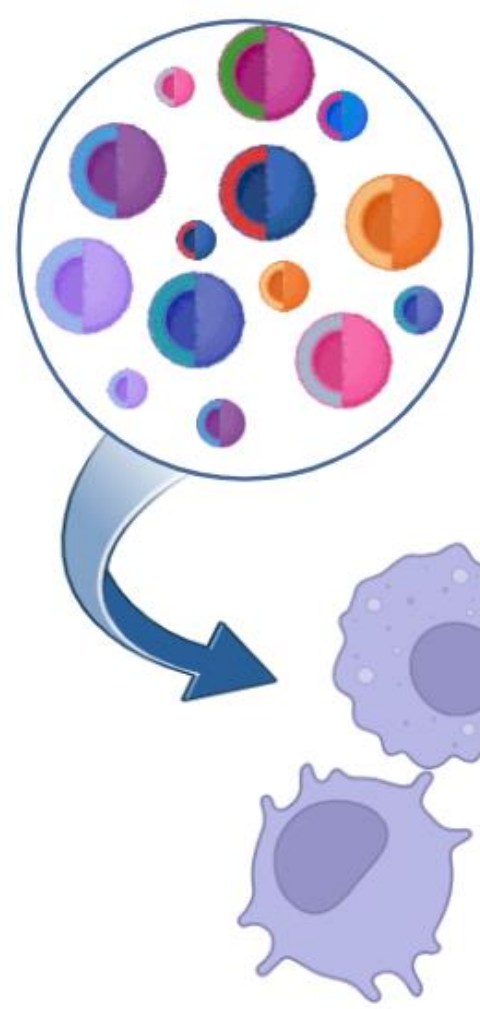
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SCREENING OF LIPOSOME FEATURES FOR IMMUNOMODULATION

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MOTIVATIONS & OBJECTIVES

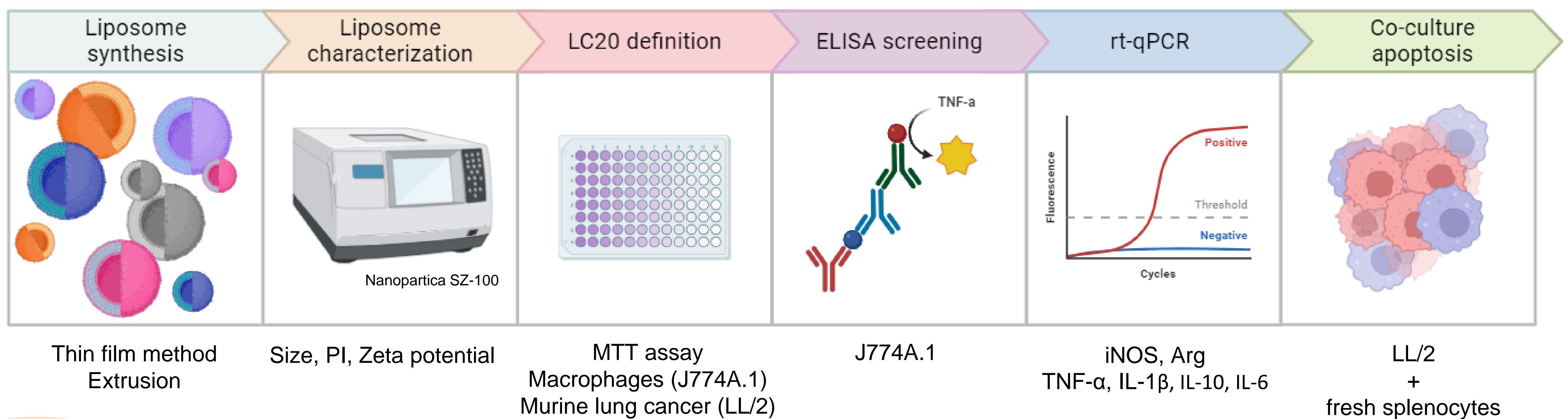


Associations to nanoparticles have been explored, mostly focusing on preexisting or complex nanosystems. Thus, we want to propose a **generic lipidic NanoBooster** that can **easily be transposed in the clinic**.

Immunotherapy is a major innovation in cancer drug. However, because of limited immunogenicity, these treatments are only beneficial to a small percentage of patients.

Impact of composition (DOTAP, DOTMA, DDA, DC-chol PC), size (Small (S) and Large (L) population) and zeta potential of liposomes were investigated.

METHODS



RESULTS

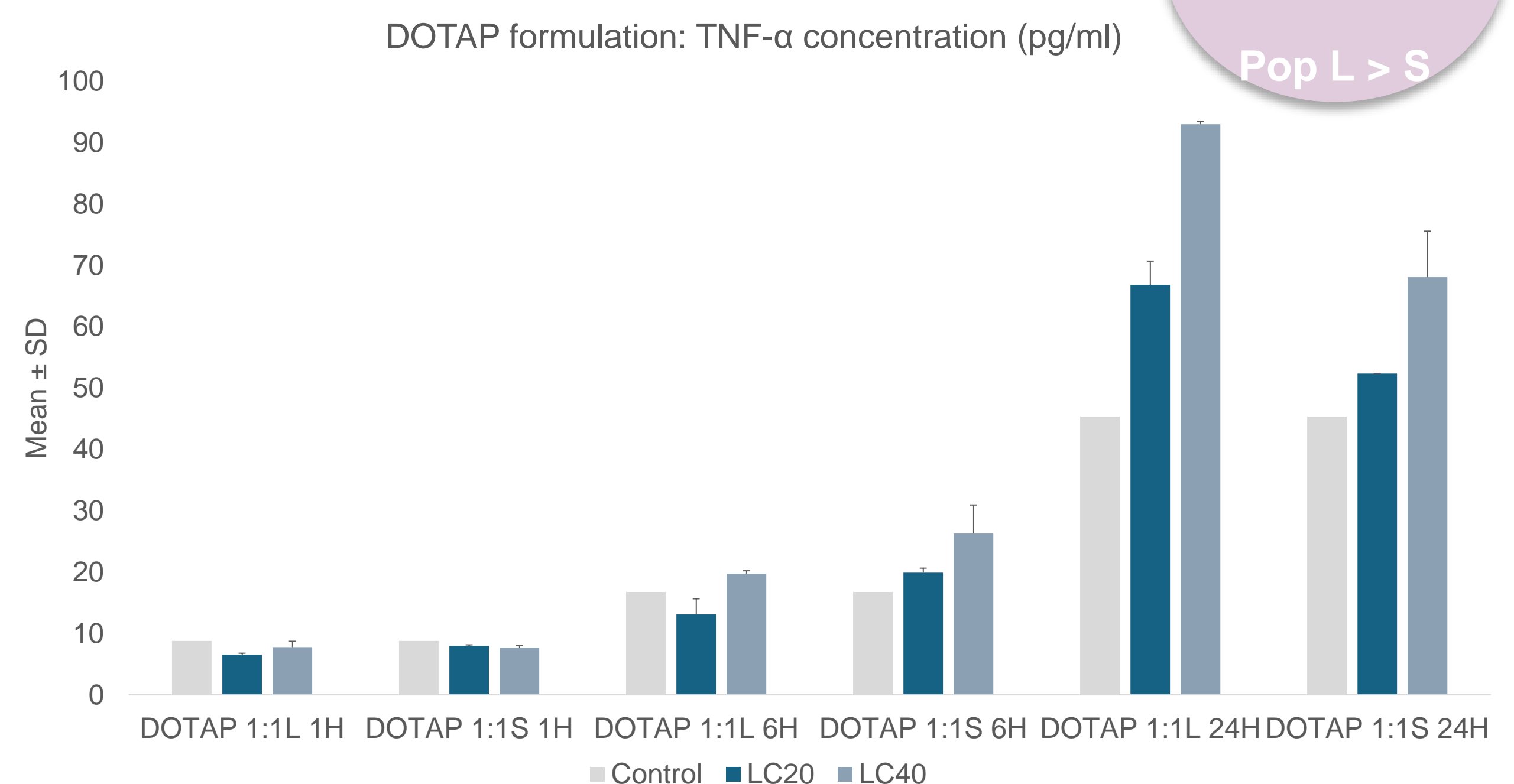
Liposome characterization and LC20 definition

Lipids:chol	Population size	Size (nm)	PI	Zeta potential (mV)	LC20 J774A.1 (µg/ml)	LC20 LL/2 (µg/ml)
DOTAP 1:1	L	277 ± 43	0,29	83 ± 3	19 ± 1	2,5 ± 0
	S	112 ± 13	0,14	87 ± 21	11 ± 2	6,2 ± 1
DOTMA 1:1	L	212 ± 28	0,33	65 ± 10	9 ± 1	8,5 ± 0,7
	S	93 ± 3	0,19	73 ± 18	8 ± 2	1,8 ± 0,4
DDA 1:1	L	317 ± 48	0,33	83 ± 14	215 ± 35	25 ± 9
	S	118 ± 7	0,15	81 ± 9	162 ± 89	24 ± 5
DC-Chol 1:1	L	277 ± 25	0,3	85 ± 2	30 ± 3	0,9 ± 0,1
	S	121 ± 1	0,08	77 ± 8	22 ± 1	4,7 ± 1
PC 1:1	L	245 ± 70	0,23	-10 ± 17	247 ± 32	15 ± 5
	S	98 ± 3	0,08	-4 ± 7	200 ± 10	60 ± 14

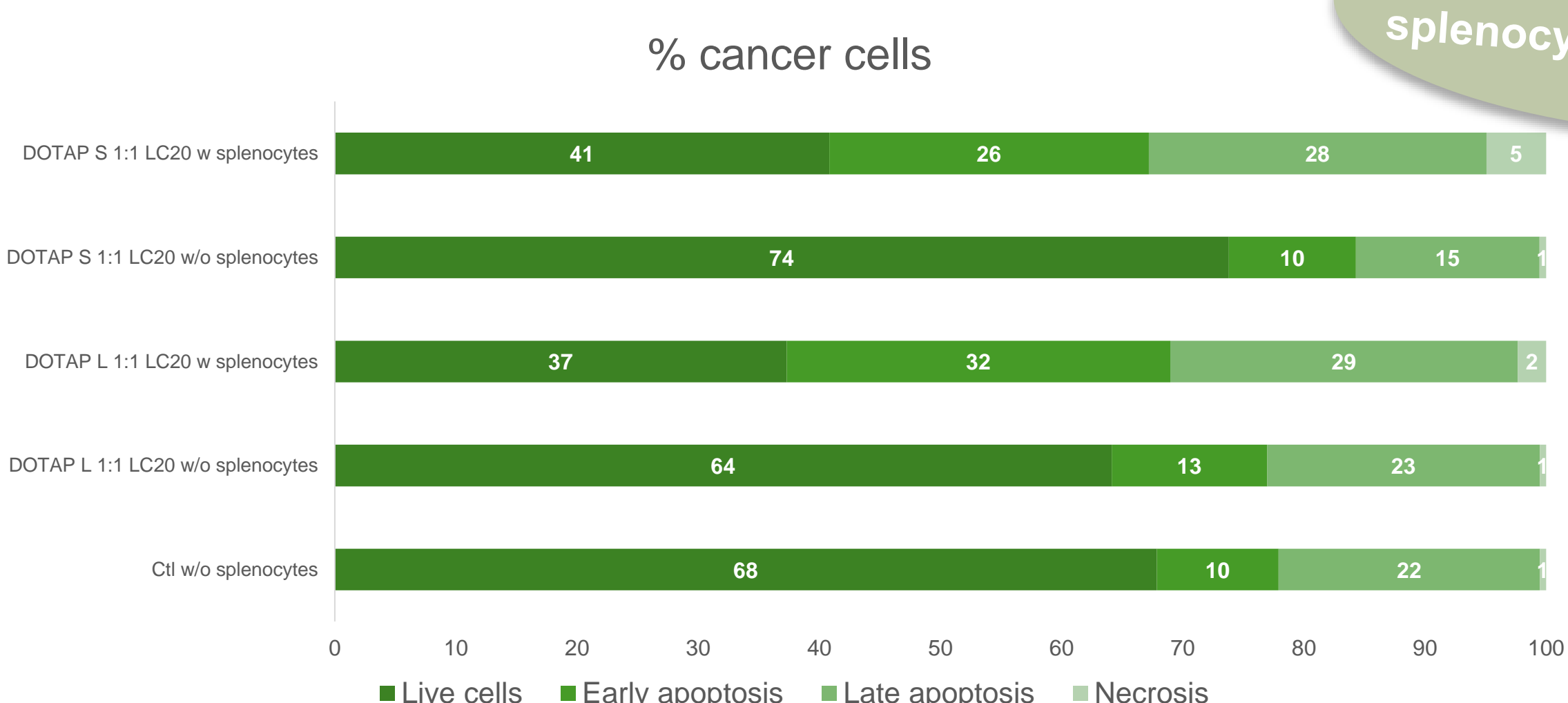
PC and DDA formulations are much less cytotoxic

Time and concentration dependant
Pop L > S

ELISA Screening



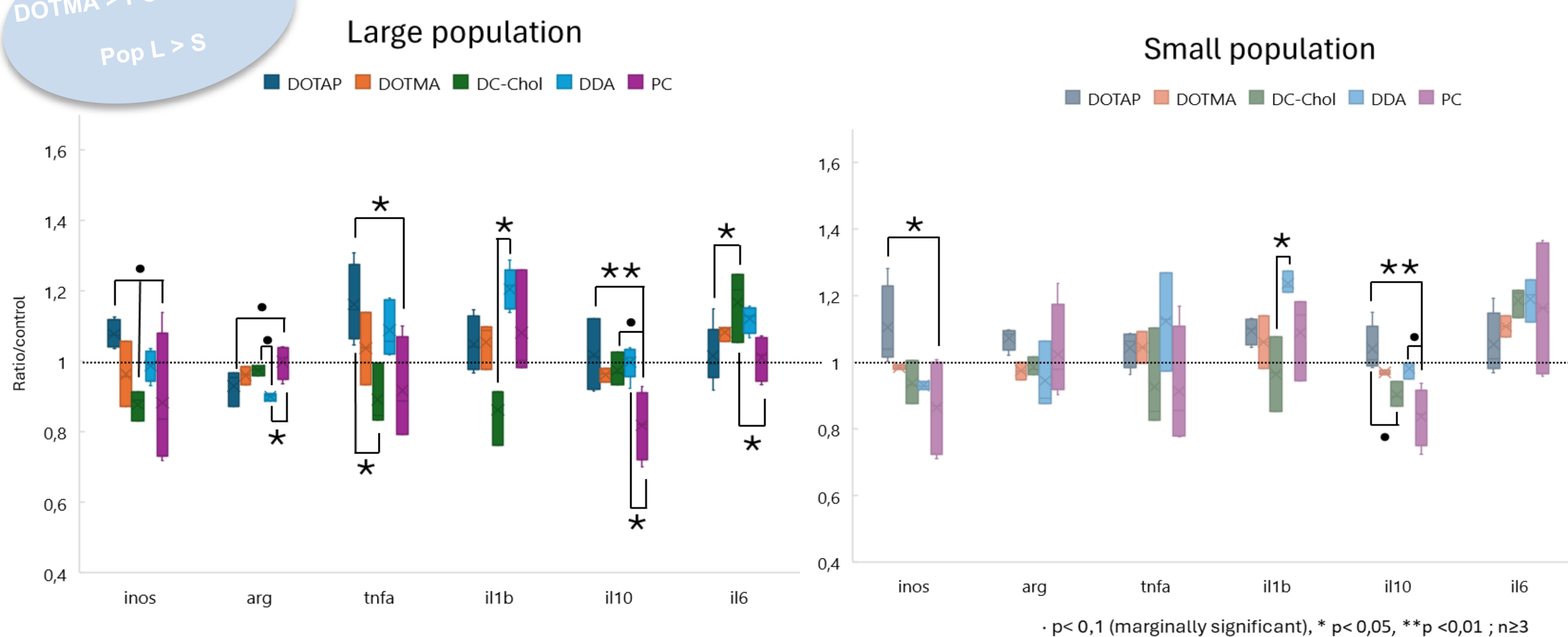
Co-culture apoptosis



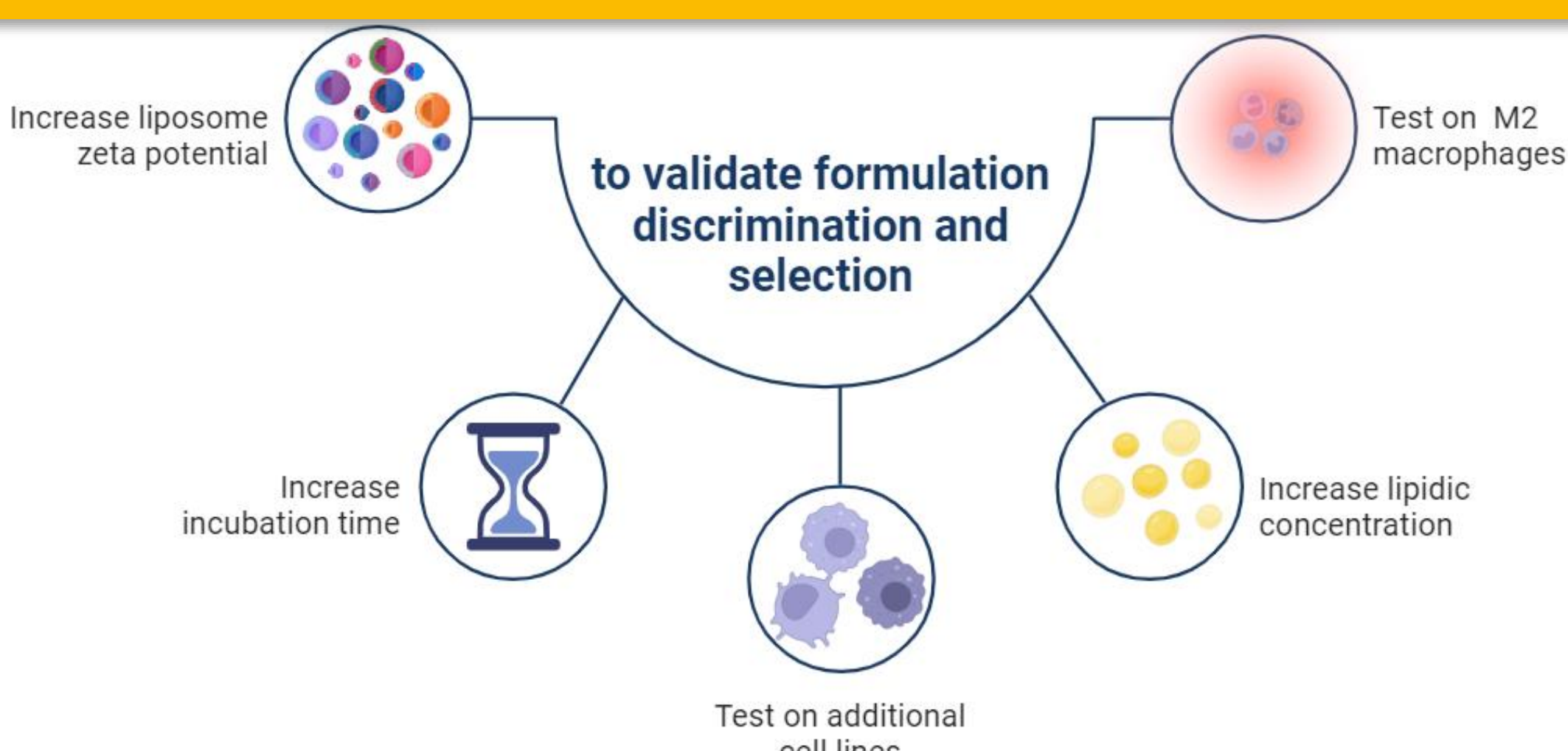
Apoptosis induction with splenocytes and liposomes

DOTAP > DDA > DOTMA > PC ≥ DC-Chol
Pop L > S

Rt-qPCR (24H, LC20)



PERSPECTIVES



ACKNOWLEDGMENTS

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