## lipid nanoparticles

	NCT Number	Title	Authors	Description	Identifier	Dates
1	pubmed:36117149	Construction of PEI-EGFR-PD-L1-siRNA dual functional nano-vaccine and therapeutic efficacy evaluation for lung cancer	Guixue Yang Dong Zhou Yin Dai Yanqi Li Jiang Wu Quanxing Liu Xufeng Deng	CONCLUSION: Our constructed lipid nanoparticles of tumor targeted therapy gene siRNA combination had the ability to target cells in vitro and downregulate the expression of PD-L1, realizing the tumor-specific expression of immune-stimulating cytokines, which is a highly efficient and safe targeted therapy nano-vaccine.	pmid:36117149 doi:10.1111/1759-7714.14618	Sun, 18 Sep 2022 06:00:00 -0400
2	pubmed:36121735	Nanomaterials Mediated Co-Stimulation of toll-like Receptors and CD40 for Antitumor Immunity	Jingyue Yan Yuebao Zhang Shi Du Xucheng Hou Wenqing Li Chunxi Zeng Chengxiang Zhang Jeffrey Cheng Binbin Deng David W McComb Weiyu Zhao Yonger Xue Diana D Kang Xiaolin Cheng Yizhou Dong	Toll-like Receptors (TLRs) and CD40 related-signaling pathways represent critical bridges between the innate and adaptive immune responses. Here, we develop an immunotherapy regimen that enables costimulation of TLR7/8 and CD40 mediated pathways. TLR7/8 agonist resiquimod (R848) derived amino lipids, RAL1 and RAL2, are synthesized and formulated into RAL-derived lipid nanoparticles (RAL-LNPs). The RAL2-LNPs show efficient CD40 mRNA delivery to DCs both in vitro (90.8 ± 2.7%) and in vivo (61.3 ±	pmid:36121735 doi:10.1002/adma.202207486	Mon, 19 Sep 2022 06:00:00 -0400