**Notes for understanding the papers better given along with the links.**

1.[Stabilization of cationic liposome‐plasmid DNA complexes by polyamines and poly ethylene.pdf](https://febs.onlinelibrary.wiley.com/doi/full/10.1016/S0014-5793%2896%2901397-X) This paper has taken luciferase in various lipid formulations and examined differences in quantitation limit for the various formulations and in various parts of the body. This might help in modeling.

(To understand what is the ng/mg data) - HCP(Host cell proteins) sandwich immunoassays often achieve standard curve sensitivity in the low single digits of ng/mL. The reported HCP ratio (ng of residual HCP relative to mg of product) is not really the ratio of masses implied by the unit ng/mg but rather “immunological equivalents” per mg of product.

2. [Lipid based nanocarriers for lnp delivery.pdf](https://sci-hub.se/10.2174/1381612821666150531164540)-This paper has the clinical trials for formulations containing lnps. Search using the trial numbers for more info.

3. [Role of helper lipids in lnps.pdf](https://sci-hub.se/https://doi.org/10.1016/j.addr.2016.01.022)- Title is self-explanatory, but there’s no experimental data. The references might be useful and give more concrete data.

4.[PK and PD for lnp of unspecified composition(as it belongs to 2 companies)given here-](https://www.cell.com/action/showPdf?pii=S2162-2531%2816%2930197-4) The most relevant paper, as it has data about levels of lnps in blood, liver, spleen after the drug has been injected. Moreover the diameter of the lnps most probably is quite close to what is being used in our project.

**Dose Escalation Trial to Evaluate the Safety, Tolerability, Pharmacokinetics and Pharmacodynamics of Intravenous ALN-VSP02 In Patients With Advanced Solid Tumors With Liver Involvement-** [**https://clinicaltrials.gov/study/NCT00882180**](https://clinicaltrials.gov/study/NCT00882180)

Click on download on this site to get the CSV file.