

Exploring beyond the experimental formulation of mRNA

Seamless in silico Approaches to Optimize LNP Formulation for mRNA, siRNA and Drug Delivery

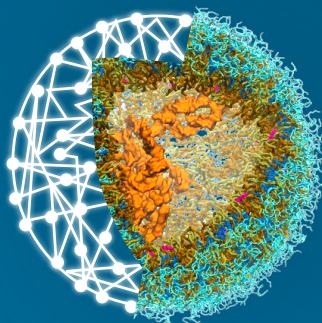
Introducing our new in silico platform for mRNA and siRNA formulation. We are here to help with the following:

1

Predicting the right stability of Lipid Nanoparticle

2

Predicting the Release Kinetics



3

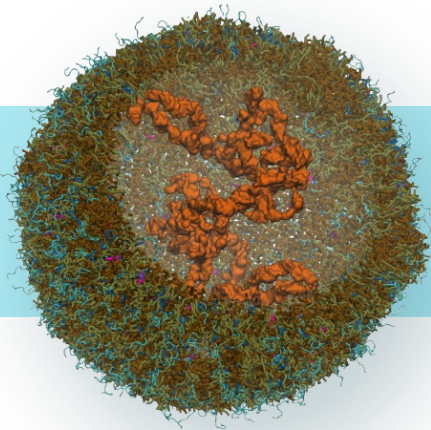
Choosing the right excipients for your formulation

4

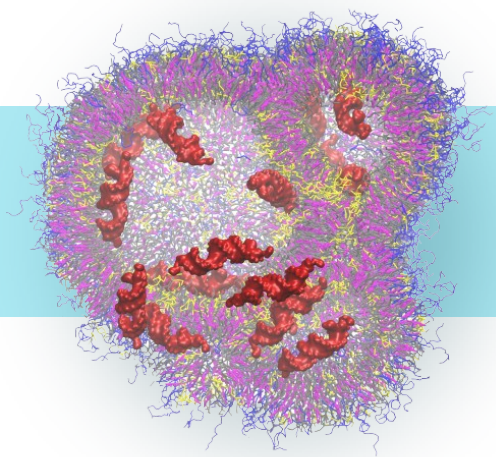
Predicting the API, mRNA as well as DNA loading



- LNPs are next gen leading non-viral gene delivery system. They enable gene editing, protein replacement, and vaccine development.
- The building blocks for our in silico LNP based drug formulation are as follows:



Simulated LNP encapsulating mRNA/siRNA

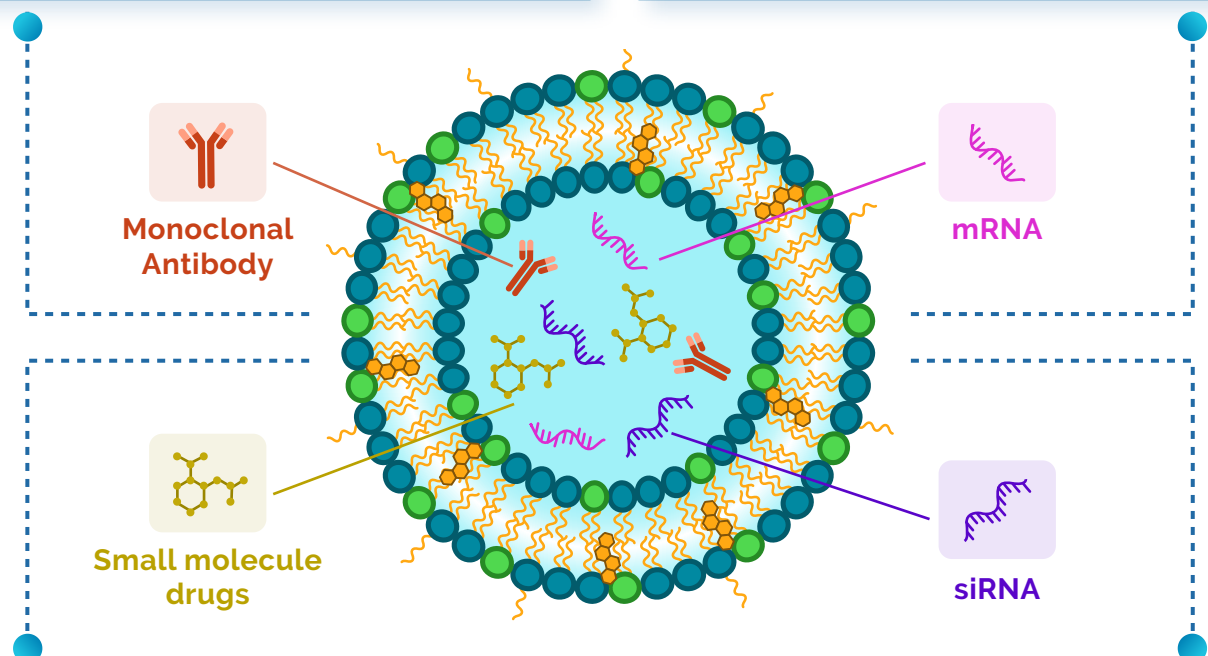


Ionizable Lipids

Helps in encapsulation of RNA-based drugs in LNPs and subsequent endosomal escape into cytoplasm

Phospholipids

Stabilizes the LNPs structures during encapsulation and help in endosomal escape



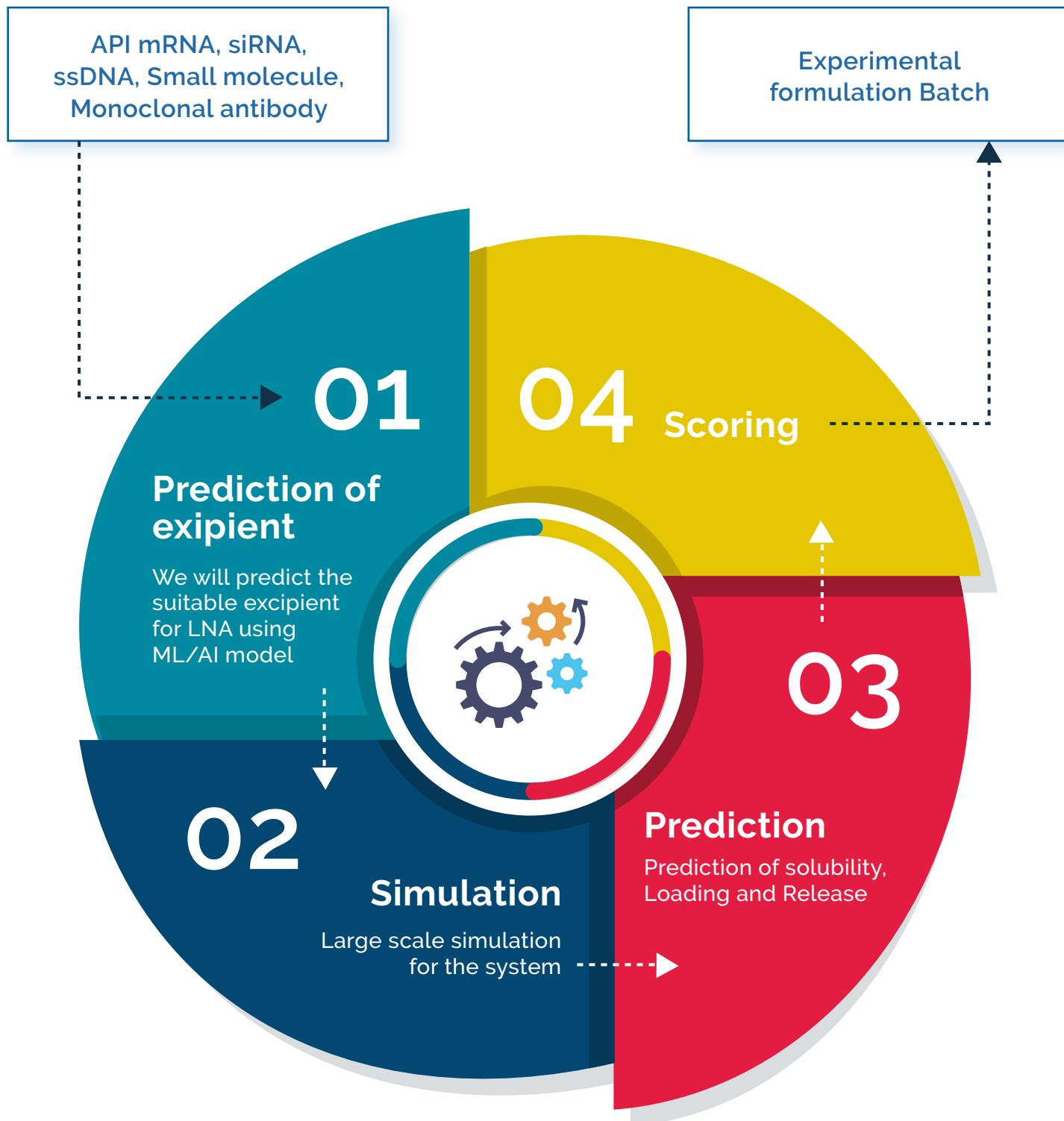
Cholesterol

Maintains liquid-ordered phase that increases membrane integrity in LNPs

PEG Lipids

Reduces aggregation, increases transfection efficiency and stability of LNPs

LNP Based drug design workflow solution



Design new therapies
and vaccines

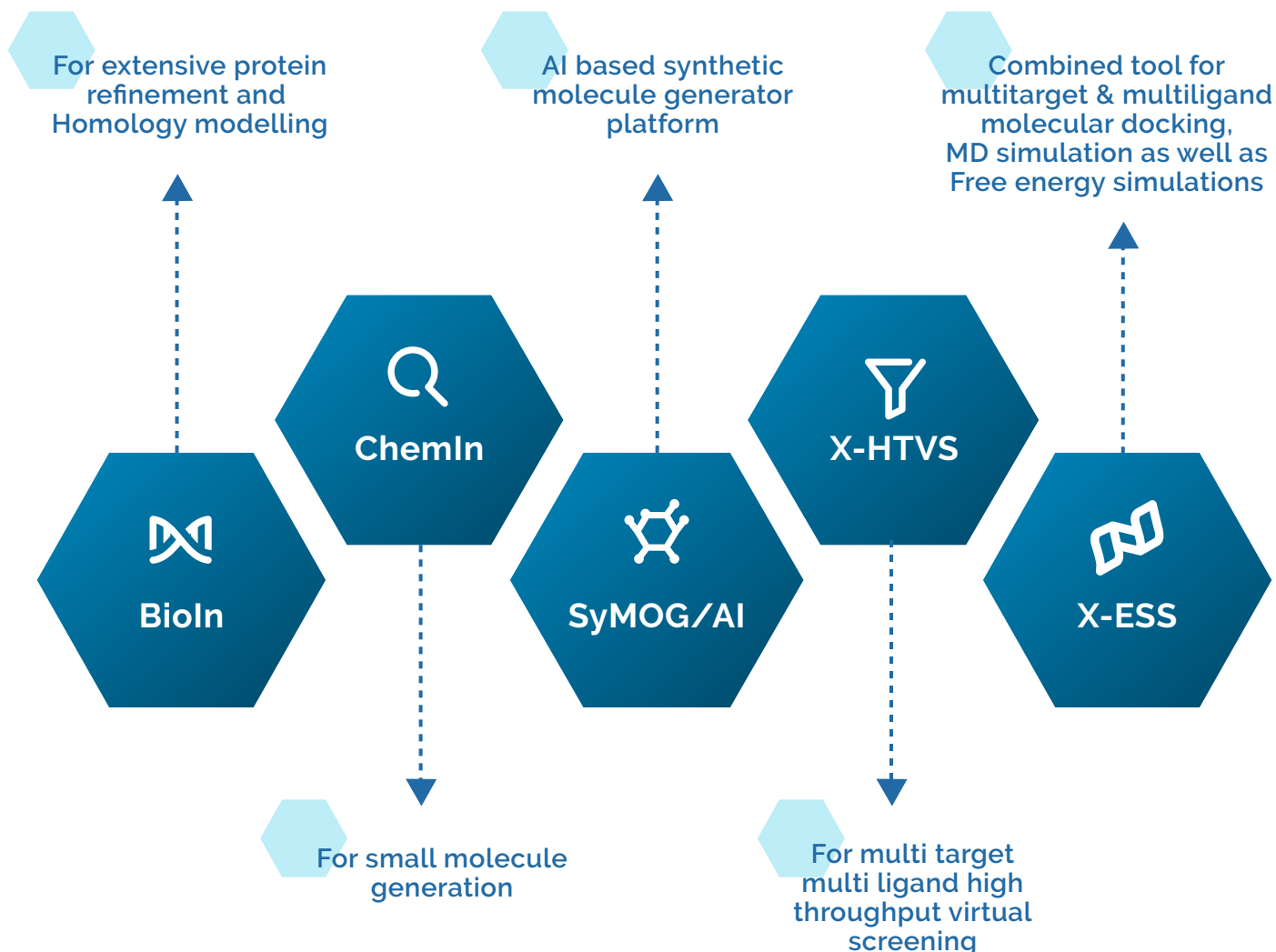


Innovate
new formulation



Repurpose
existing drugs

Prescience has developed platform for drug discovery by incorporating various aspects of early phase drug development elements:



Partner with us in this journey of drug development

In silico based workflow helps in reduction of trial and testing in experiments. We collaborate with you to help you in your R&D journey with formulations.

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