

bachelor-, studies-, master thesis

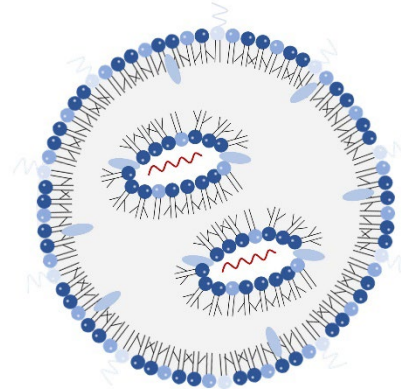
The SARS-CoV-2 vaccines impressively demonstrated the potential of RNA-based drugs. One major disadvantage, however, is the need for ultra-low temperature storage. The drying of RNA packaged in lipid nanoparticles represents a promising possibility to produce more temperature-insensitive, long-term stable drugs. For this reason, RNA is to be dried using various methods in this project.

Work packages:

- Drying of lipid nanoparticles with RNA using various methods
- Clarification of the effects of formulation and process parameters on the properties of dried RNA products
- Proof of stability and comparison with liquid formulations

Methods:

- Spray drying, fluidized bed drying or freeze drying
- Examination of the size, shape and structure of the solid particles
- Test for integrity after reconstitution of the RNA



source: hokkaido university



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