Protocol for Liposome Preparation Through Thin-film Hydration

Procedure:

1. The lipids must first be dissolved and mixed in an organic solvent to assure a clear and homogeneous mixture of lipids.

2. Once the lipids are thoroughly mixed in the organic solvent, the solvent is removed to yield a lipid film.

3. The lipid film is thoroughly dried to remove residual organic solvent by placing the vial or flask on a vacuum pump overnight.

4. Add an aqueous medium to the container of dry lipid and agitating. (The temperature of the hydrating medium should be above the gel-liquid crystal transition temperature ($T_c$ or $T_m$) of the lipid with the highest $T_c$ before adding to the dry lipid. Vigorous shaking, mixing, or stirring is highly recommended)

5. The hydrated lipid suspension then was downsized by a variety of techniques, including sonication or extrusion.