

PHARMOSA Biopharm Inc.

*A Start-up RD Company
Focused On*

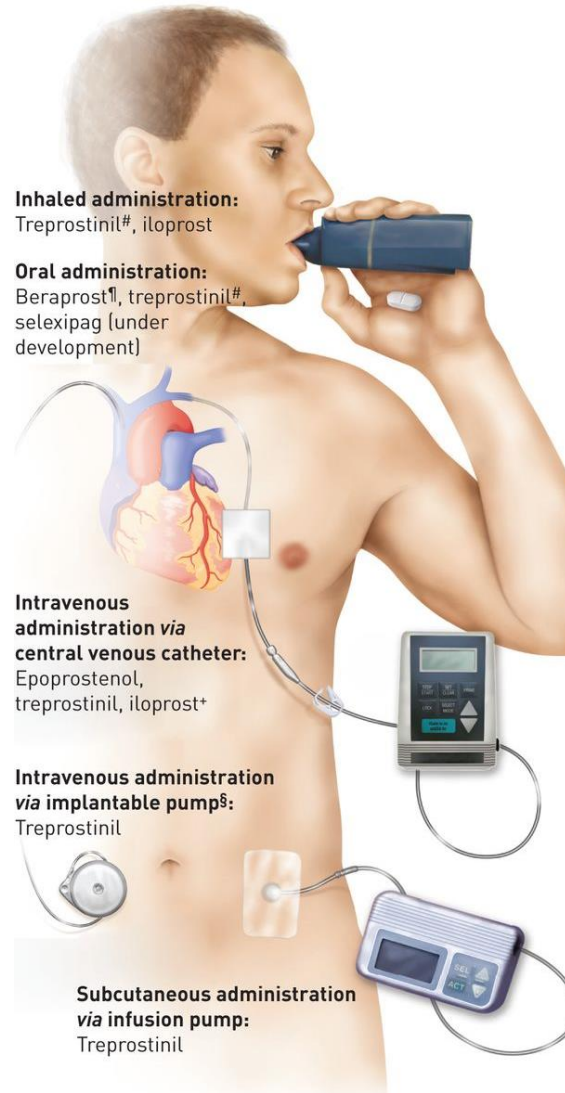
Controlled-Release Formulation-Device Combination
for Localized Therapy

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President

<http://www.pharmosa.com.tw>

Synergy of Medical Device & Formulation Technologies

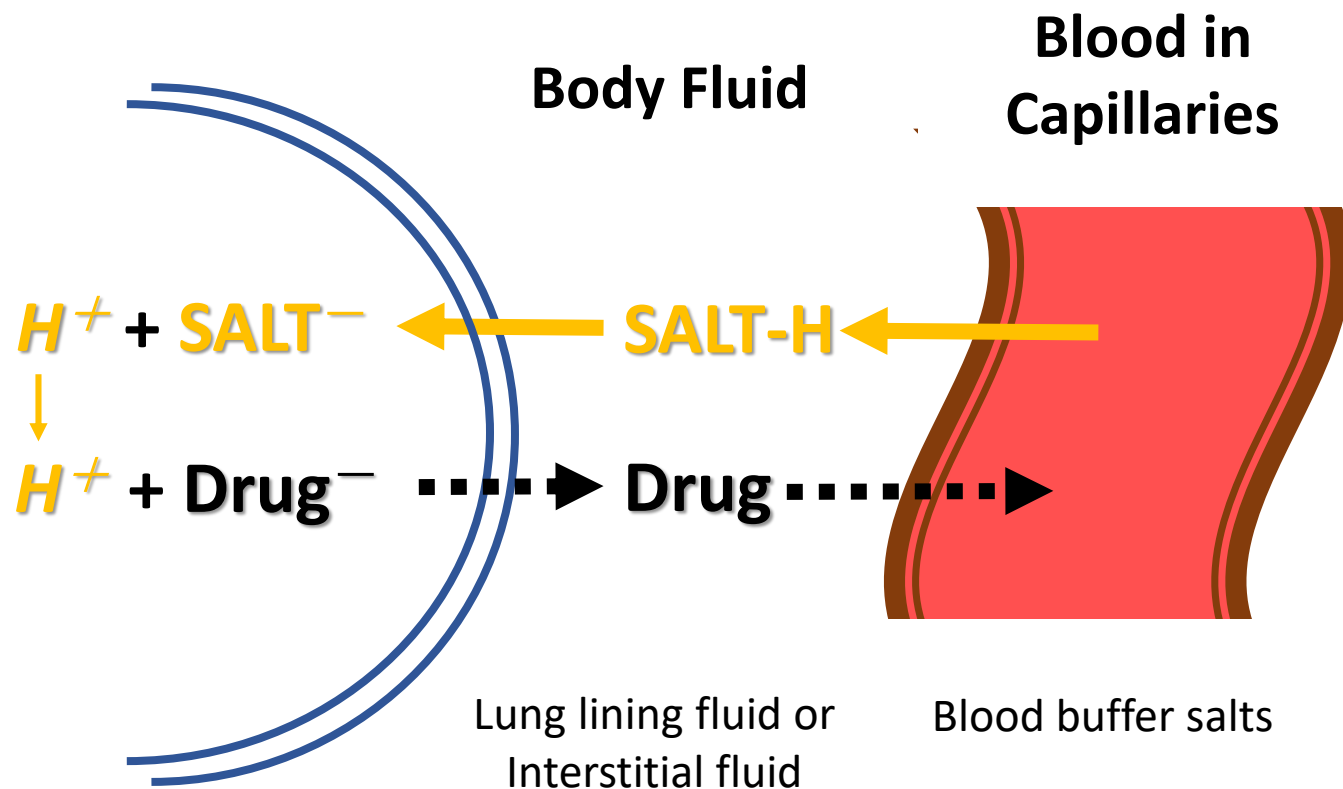
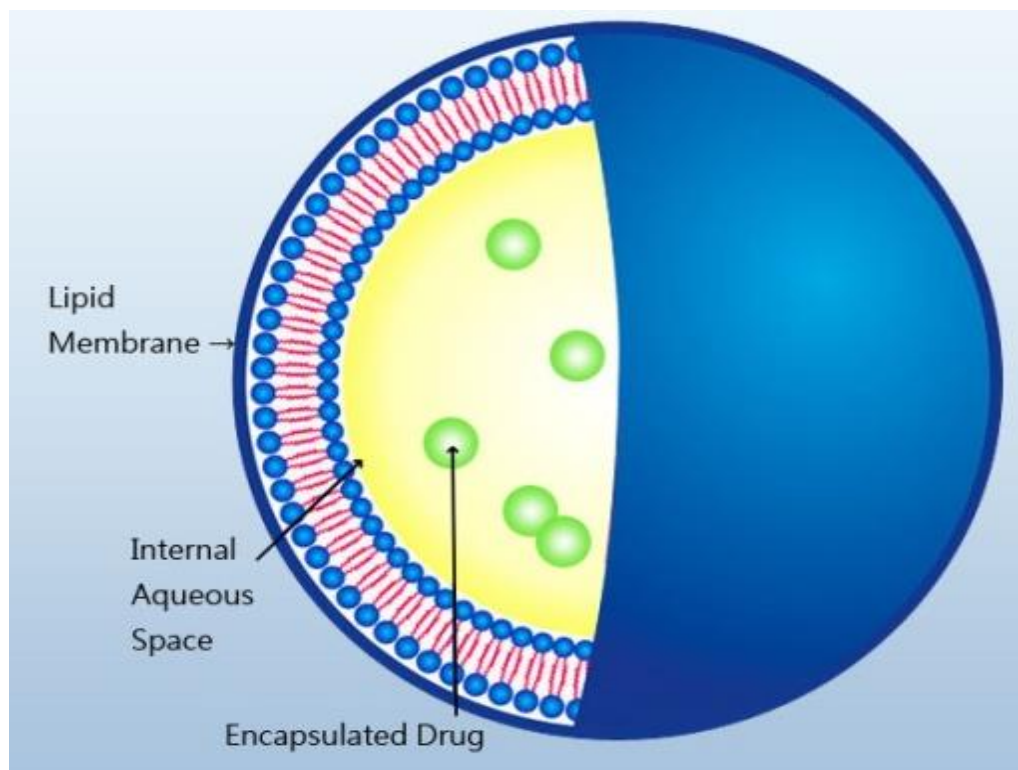


- Some medications are suffering from **low patient compliance** and **low concentration at the target site**.
- Innovated medical devices are being explored to **improve drug delivery to the target site**.
- However, the needs for improving drug delivery technology such as controlled-release formulation are still growing.
- **PHARMOSA** is specialized in **liposome formulation**.
- Controlled-Release liposome platform is being developed to be used with preferred medical devices.

Liposome-Device Combination System

Liposome is a biocompatible formulation which is composed of phospholipid bilayer membrane for controlled release.

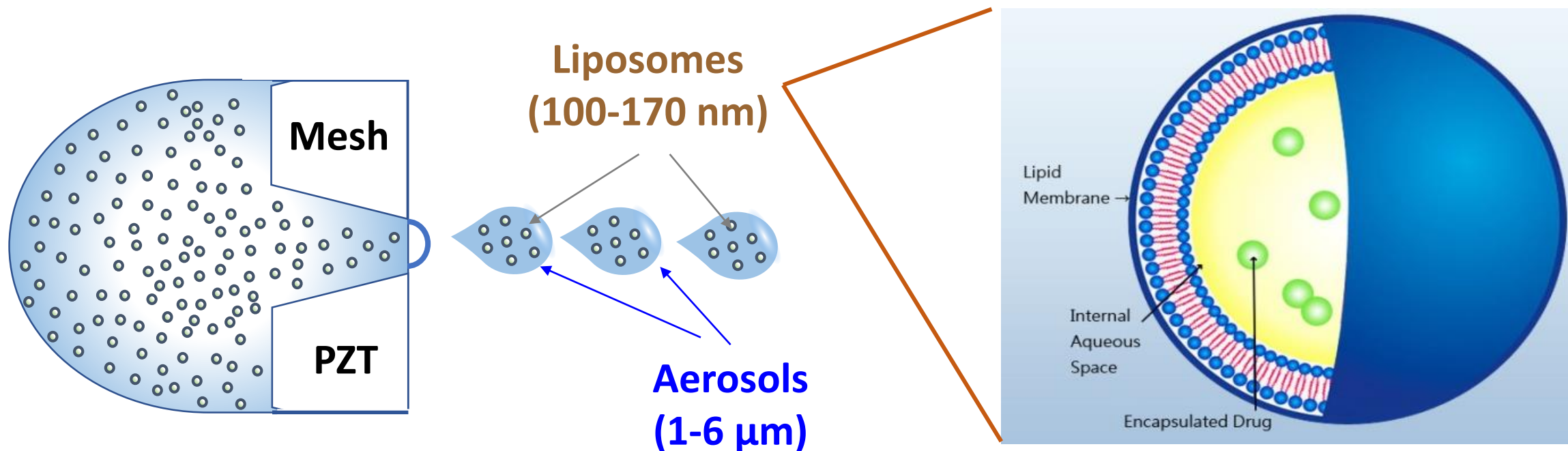
Buffer salts, diffusing from blood of capillaries, **trigger & control drug release rate** from liposomes deposited near target sites.



Liposome-Device Combination System

Based on **Device Specification**, liposome is optimized to fit in the combination system, in order to successfully **Deliver** liposomes to **Target Site** for **Localized Therapy**.

Example: Liposome-Nebulizer System for Inhaled Therapy



Liposomes

Vibrating

Aerosols

Inhalation

Alveoli

Applicable for Versatile Delivery Devices

**Jet
Nebulizer**



**Mesh-Vibrating
Nebulizer**



**Soft Mist
Inhaler**



**Nasal
Sprayer**



**Needle-Free
Injector**



**Eye
Drop**

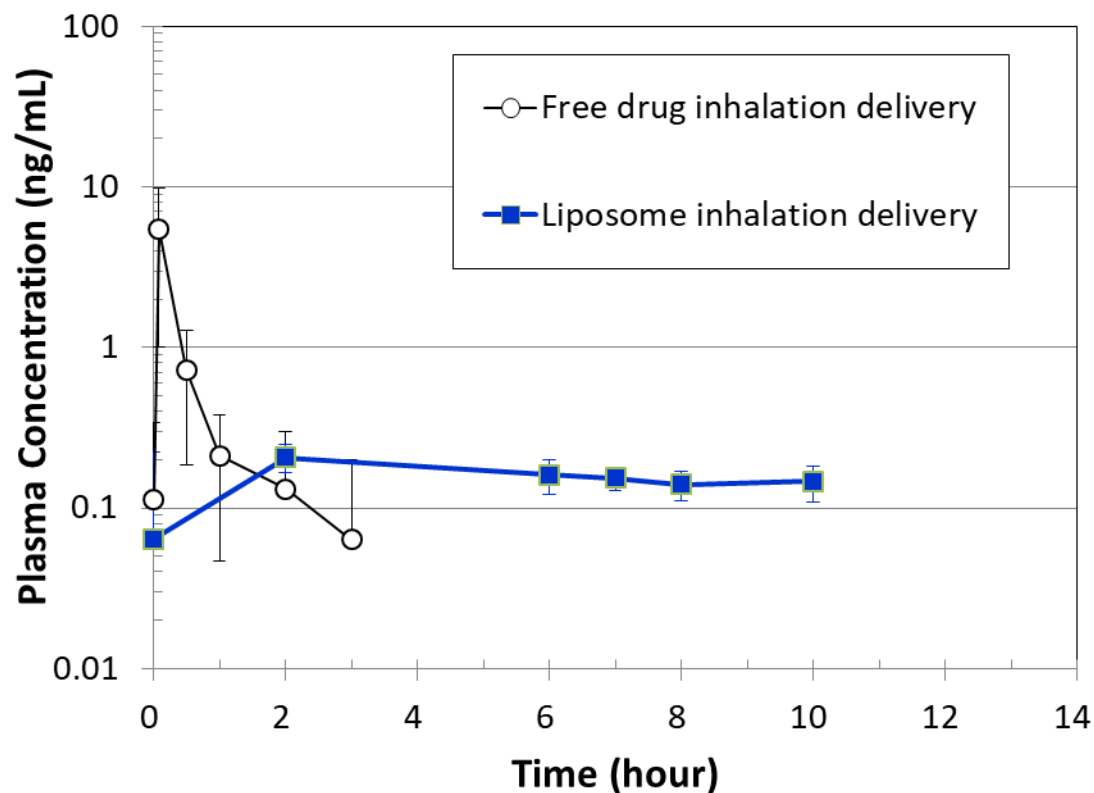


***After delivered by devices, PHARMOSA liposomes retain
High Drug Encapsulation & Sustained-Release Profile.***

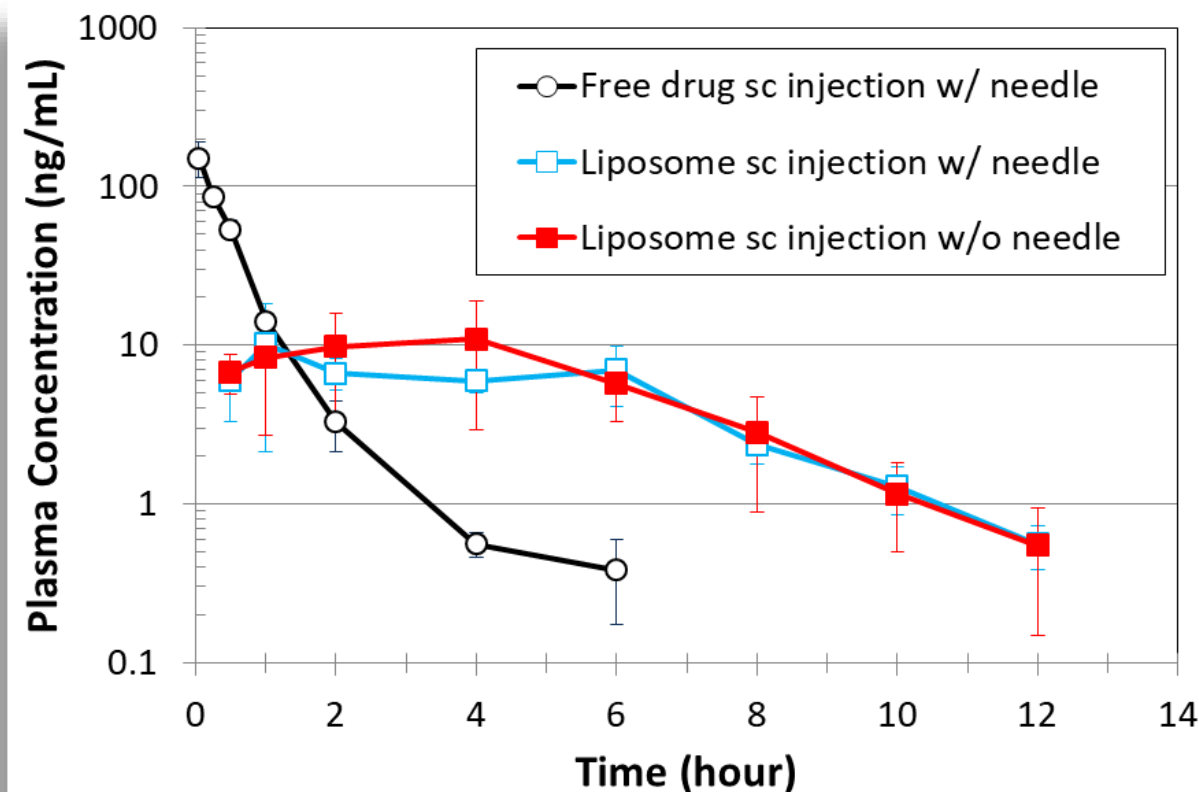
Proof-of-Concept In-Vivo PK Study



**Inhalation Delivery
with MV Nebulizer**

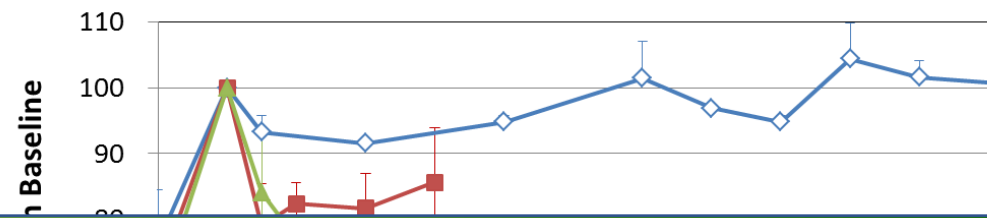
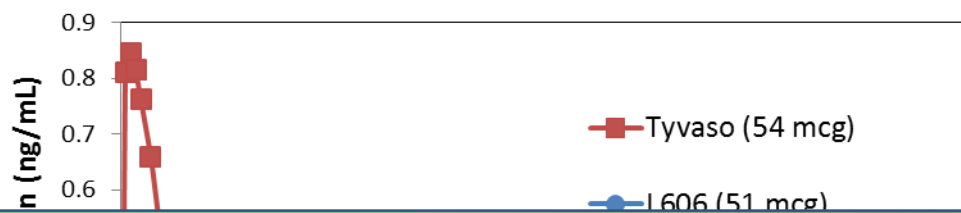


**Subcutaneous Injection
with Needle-Free Injector**



Leading Product: Inhaled Liposomal Treprostinil (L606)

- ✓ Lower Irritation & Adverse Events
- ✓ Extended Release & Steady Plasma Level
- ✓ Ventilation/Perfusion Match
- ✓ Prolonged Pharmacological Effect in Hypoxia-Induced Rats



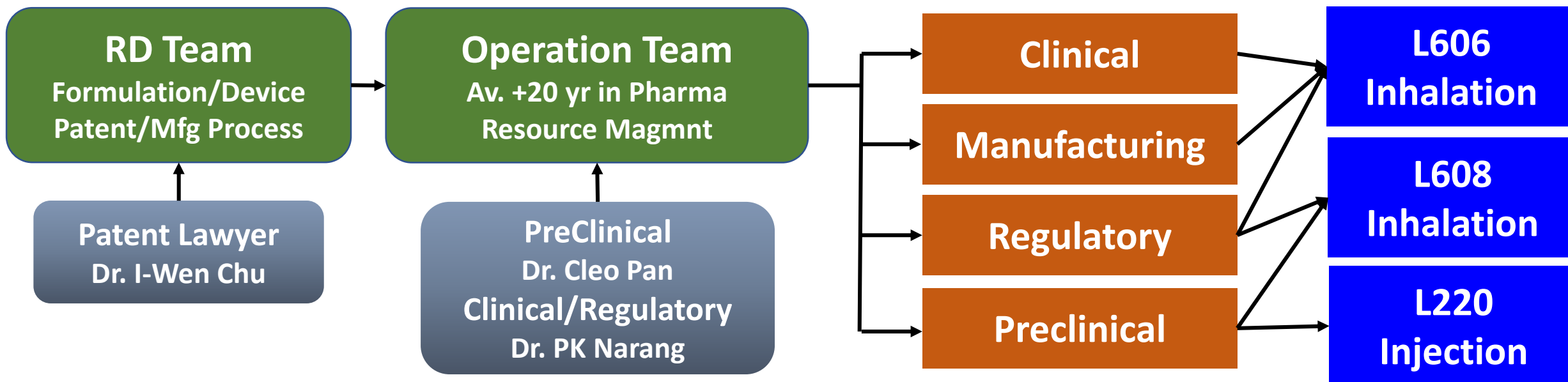
Phase 1 Study is expected to complete in Q3, 2019.

Safety Study will start in H1, 2020.

Company Overview

Since	Capital	Location	Employee
2016	USD 6.7 million	Taipei, Taiwan	16




PHARMOSA (PBI) is a privately-owned R&D company focusing on improving clinical treatment regimen of existing medicines by utilizing extended-release formulation-device combination system for localized therapy through 505(b)2 regulatory pathway.



Business Strategy & Pipeline

PHARMOSA's business strategies:

- To seek collaboration partners or licensing opportunity after Ph1 study,
- To progress value enhancement at every product development stage through collaboration with partners, and/or
- To become a partner of choice for business development.

	Product Name	Indication	R&D	PoC Study	Pre-Clinical	IND	Ph 1	Pivotal Study	NDA
L606	Inhaled Liposomal Treprostinil	PAH							
L608	Inhaled Liposomal PH Drug	Pulmonary Vascular Disease							
L220	Liposomal Depot for Injection	Cardiovascular Disease							

Thank You for Your Attention!

Welcome to Visit Our Poster (A5056) at ATS Conference:

"Extended Release of Inhaled Liposomal Treprostinil Able to Prolong and Improve Reduction of Pulmonary Arterial Pressure in Hypoxia-Induced Pulmonary Hypertension Rats"

