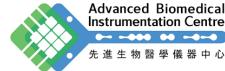
Accelerating New Drug Development: A Thermal Activation Technology Platform for Discovering Hidden Cocrystals

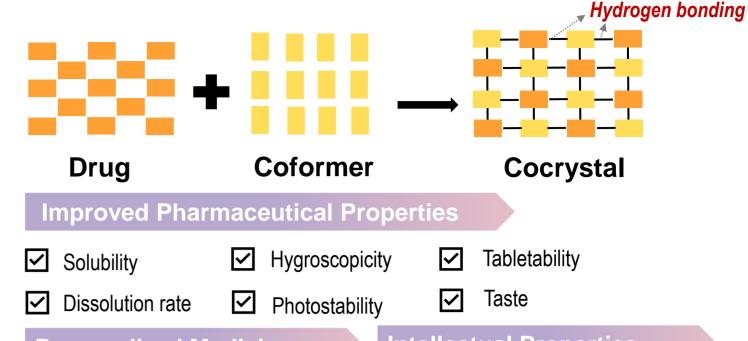




Cocrystal Engineering for New Drug Development

Unmet Needs in Cocrystal Engineering

- Limited crystal forms available for problematic drugs
- Ineffective cocrystal screening due to false-negative results in computational prediction and experimental approaches
- Limited dosage forms of cocrystal products available on the market (only oral and intravenous routes)

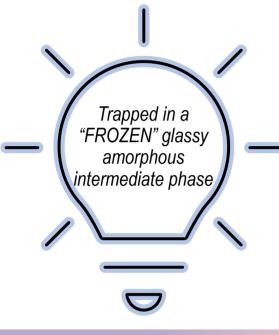


Personalized Medicines

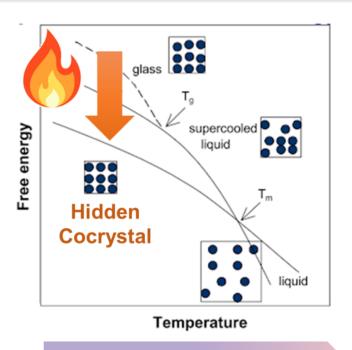
Intellectual Properties

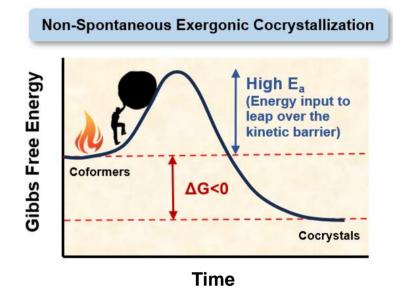
Availability of large number of coformers

Rationale of Our Invention in Discovering Hidden Cocrystals









"The Missing Gap"

- Low molecular mobility
- Inhibit cocrystal formation

Spray Drying

A continuous and scalable manufacturing technique to produce inhalable dry powders

Thermal Activation Technolog

Strategic approach to determine the optimal activation temperature based on glass transition behaviors

Hidden Cocrystals

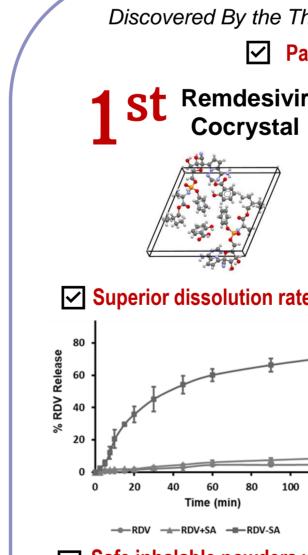
- Supply of high activation energy
- Novel crystal form

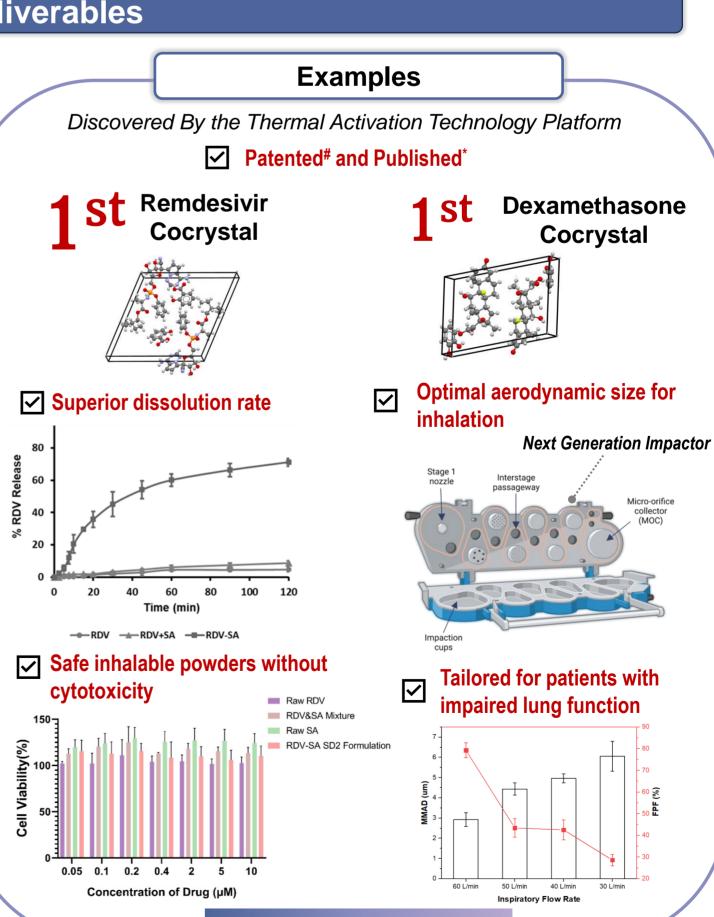
Innovation Deliverables

#Patent No.

US 63/489,894, US 2023/0382944 A1

Pharmaceutical Applications Bypass blood brain barrier **Advantages of Inhalable Products** Avoid first pass - Direct drug delivery to diseased organs metabolism - Reduce drug dose - Minimal systemic side effects · Rescue drugs not suitable for oral and injection administration **Intranasal Delivery Pulmonary Delivery** Targeting brain diseases Targeting respiratory diseases





Unlimited Opportunity

Overcome Patent Cliff

*Publication DOI:

10.1016/j.ijpharm.2023.122983, 10.1039/d2ce00758d

Commercial Impacts

