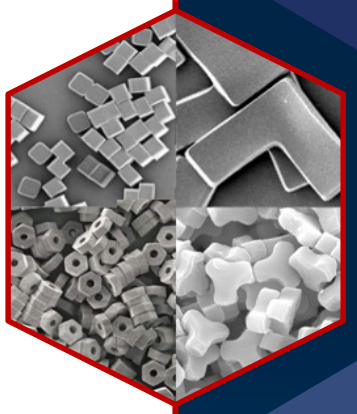
LIQUIDIA TECHNOLOGIES



Wedbush PacGrow Healthcare Conference

Neal Fowler, Chief Executive Officer

August 14, 2018

Forward-Looking Statements

This presentation includes, and our response to various questions may include, forward-looking statements. All statements contained in this presentation other than statements of historical facts, including statements regarding our future results of operations and financial position, our business strategy and plans and our objectives for future operations, are forward-looking statements. The words “anticipate,” “believe,” “continue,” “estimate,” “expect,” “intend,” “may,” “will” and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions. Moreover, we operate in a very competitive and rapidly changing environment and our industry has inherent risks. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the future events and trends discussed in this presentation may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, achievements or events and circumstances reflected in the forward-looking statements will occur. We are under no duty to update any of these forward-looking statements after the date of this presentation to conform these statements to actual results or revised expectations, except as required by law. This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk. This presentation includes long-term goals that are forward-looking, are subject to significant business, economic, regulatory and competitive uncertainties and contingencies, many of which are beyond the control of us and our management, and are based upon assumptions with respect to future decisions, which are subject to change. Actual results will vary and those variations may be material. Nothing in this presentation should be regarded as a representation by any person that these goals will be achieved and we undertake no duty to update our goals.

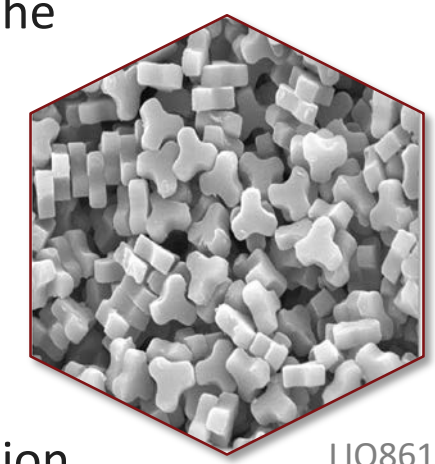
Disclaimers

Unless otherwise indicated, information contained in this presentation concerning our industry and the markets in which we operate is based on reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources as well as our own internal estimates and research. Decision Resources Group, the primary source for the market data included in this presentation, was commissioned by us to compile this information. Although we believe the data from these third-party sources is reliable, we have not independently verified any third-party information. In addition, projections, assumptions and estimates of the future performance of the industry in which we operate and our future performance are necessarily subject to uncertainty and risk due to a variety of factors. Such factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

Novel products via precise control of drug particles

Late-stage clinical biopharmaceutical company focused on transforming the lives of patients

- LIQ861, Ph3 product candidate, with a clear regulatory path targeting a segment of the ~$3.7B U.S. market[1] for PAH[2]
- Broader LIQ861 market opportunity beyond U.S. and WHO Group I – pipeline in a PRINT® particle
- LIQ865, Ph1 product candidate, targeting unmet need for local post-operative pain
- PRINT® technology not limited by therapeutic area, molecule or route of administration
- Strategic collaborations to advance new PRINT® programs/capabilities
- Seasoned team with relevant commercial and disease area expertise



LIQ861

1. Decision Resources Group, Landscape & Forecast, PAH, Nov 2016 ; 2. Pulmonary arterial hypertension

LIQUIDIA TECHNOLOGIES

Seasoned team with relevant commercial and disease area expertise

Neal Fowler

Chief Executive Officer

Kevin Gordon

President & Chief Financial Officer

Robert Lippe

Chief Operations Officer

Robert Roscigno, Ph.D.

Senior VP, Product Dev.

Ben Maynor, Ph.D.

Senior VP, R&D

Jeri Thomas

Senior VP, Commercial

Jason Adair

VP, Strategy & BD

Management Employment History Highlights

Lilly · IQVIA · Ironwood · LUNG BIOTECHNOLOGY · The University of North Carolina at Chapel Hill · The Medicines Company · BioCryst Pharmaceuticals, Inc.

Johnson & Johnson · Teleflex · Genentech · United Therapeutics Corporation · janssen Pharmaceutical Companies of Johnson & Johnson · AstraZeneca

LIQUIDIA TECHNOLOGIES

Pipeline

Product	Indication	Formulation & Route	Phase 1	Phase 2	Phase 3	Next Key Milestone	Worldwide Commercial Rights
LIQ861[1]	PAH	Dry powder inhalation				Safety data 1H:19	Liquidia
LIQ865	Local, post-operative pain	Sustained-release injectable				Ph2-enabling studies commencing 2H:18	Liquidia

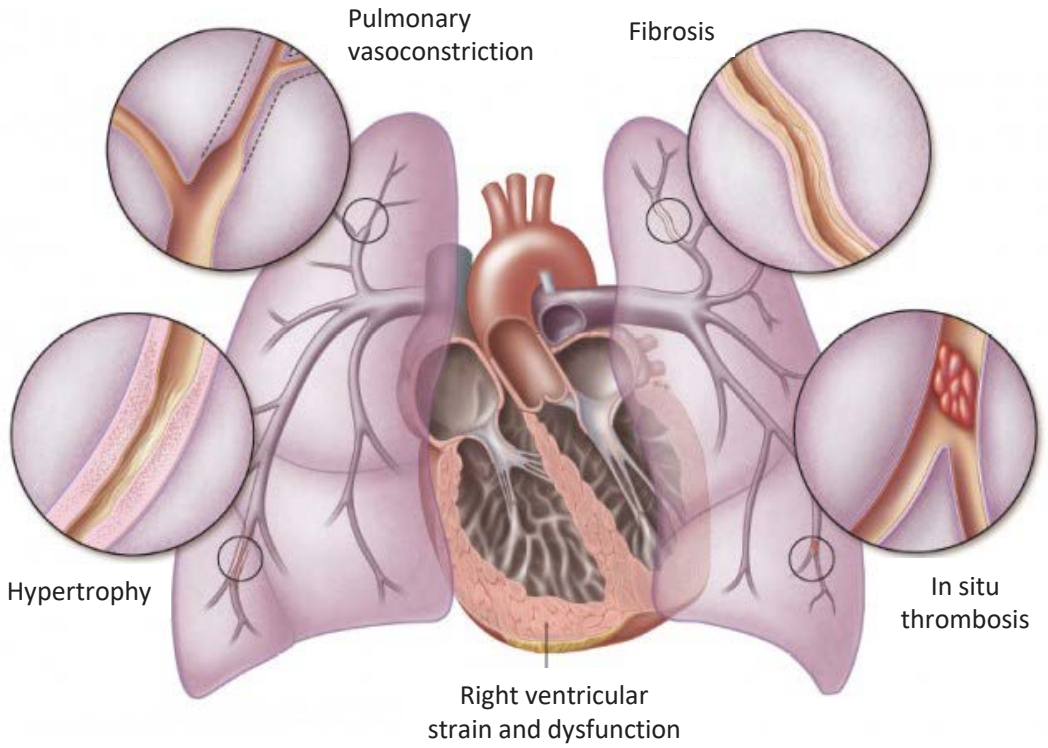
1. After consultation with the FDA, we advanced from a Phase 1 trial directly to a single, pivotal Phase 3 trial and will seek approval under the 505(b)(2) pathway.

LIQ861 for PAH

PRINT® treprostinil, dry powder inhalation

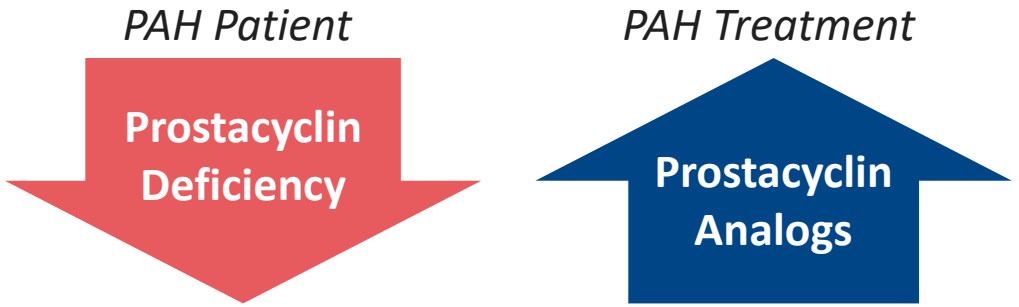
PAH is a rare, progressive disease that results in right heart failure

Multiple pathways are involved in pathogenesis



Abnormal changes in arteries of the lungs increase pressure in pulmonary arteries that leads to remodeling of the right ventricle

- **Prostacyclin is essential to normal lung function**
  - Continually released by lungs to bind local receptors
  - Vasodilates the pulmonary arteries
  - Relaxes smooth muscle
  - Inhibits platelet aggregation



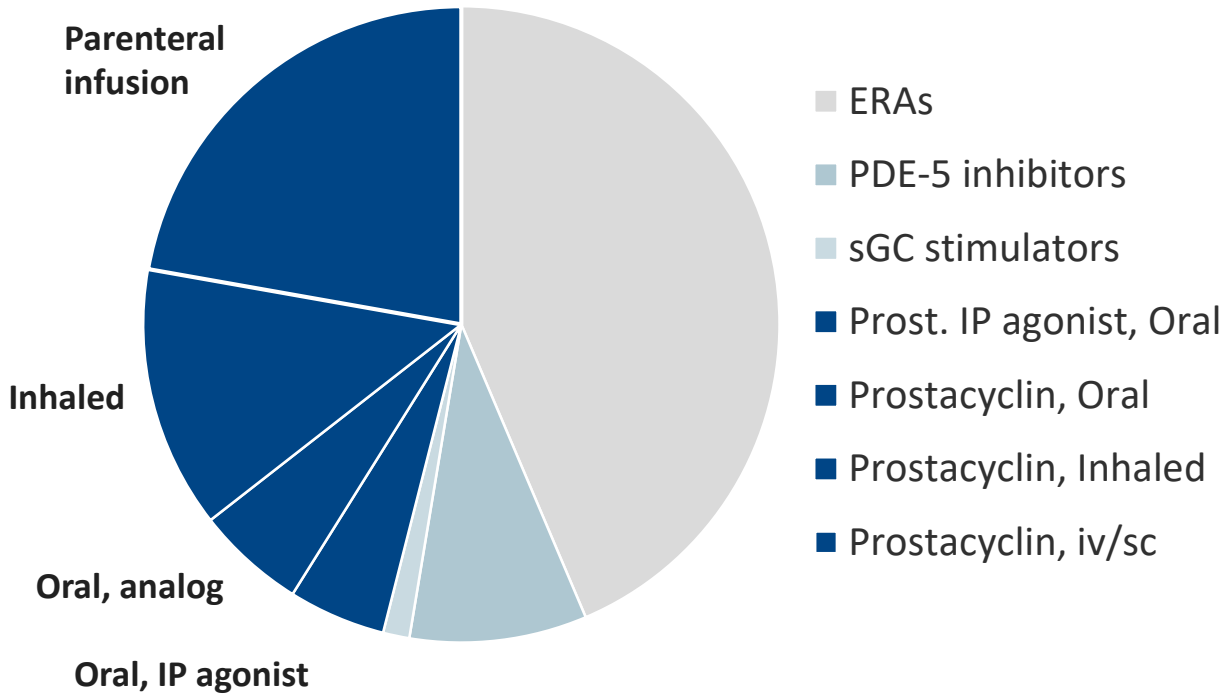
Goal of **prostacyclin therapy** is to **maximize a patient's exposure** to the highest tolerable level of drug

Farber *Eur Respir Rev* 2016; Lang *Eur Respir Rev* 2014; Channik *Advances in Pulmonary Hypertension Spring,* 2002, DRG, PH Disease Landscape, Nov 2016; 4. Yen-Chun Lai et al. Circ Res. 2014;115:115-130

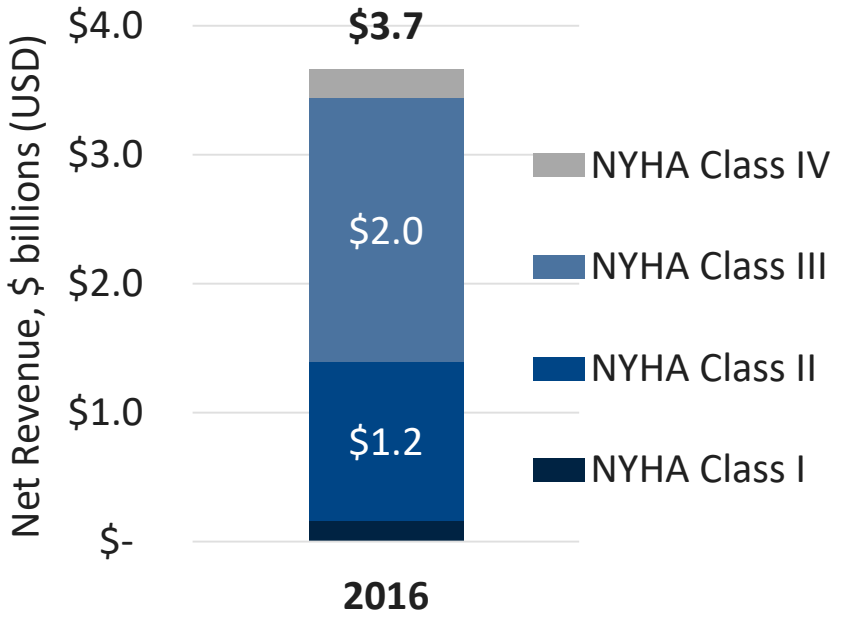
LIQUIDIA TECHNOLOGIES

U.S. market is reliant on prostacyclin products with ~$1.7B in 2016

Prostacyclins represent 45%+ of the $3.7B U.S. PAH market



Many patients have limited physical ability



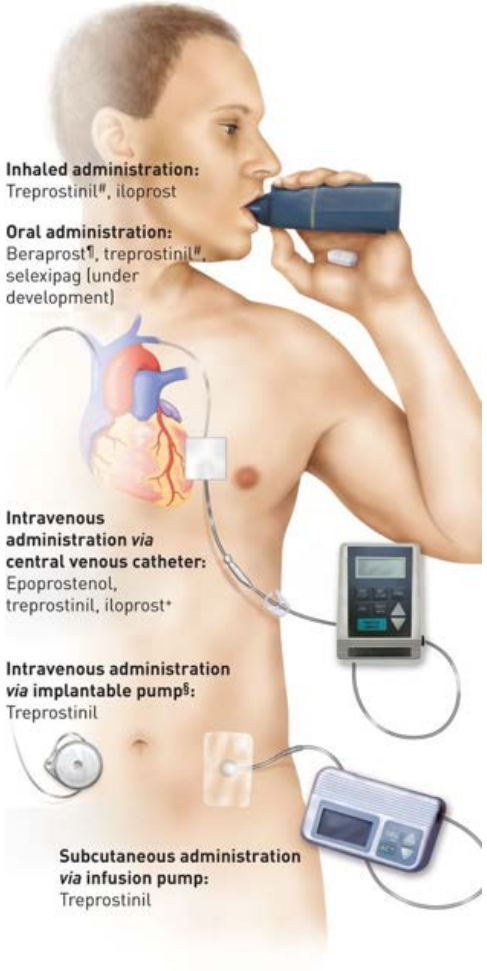
Despite the success of prostacyclin products, the therapy has not been fully optimized

Source: Decision Resources Group, Landscape & Forecast, PAH, Nov 2016

LIQUIDIA TECHNOLOGIES

Products must balance exposure with safety, efficacy and convenience

Prostacyclin products must reach the lung to be effective



- **Significant adverse effects from systemic circulation, e.g. oral, infused**
  - Gastrointestinal, *e.g.* diarrhea and nausea
  - Nervous system, *e.g.* jaw pain, pain in extremities, headache
  - Vascular system, *e.g.* flushing and headache
- Oral dosing has shown minimal symptom relief and is limited by side effects
- IV and SC infusion limits lifestyle, adds infection risk, site pain
- **Inhaled therapy is targeted, but nebulization is burdensome**
  - Local delivery generates fewer off-tissue effects
  - Nebulizers limit the max dose range due to throat irritation, adverse events
  - Nebulizers require water, power, supplies, cleaning and time to dose

Lang, *Eur Respir Rev* 2015, Figure 3; Selexipag is now approved

LIQUIDIA TECHNOLOGIES

Choice of inhaled options is driven by convenience

Tyvaso® share was over 80% of the U.S. inhaled patient population in 2016

$405M (U.S., 2016)

~$188k patient/yr

TYVASO® (treprostinil) INHALATION SOLUTION

- **4x daily**, titrated to target of **54 mcg/dose (9 breaths),** the maximum recommended dose in label
- Most common AEs - **cough**, headache, nausea, dizziness, flushing, **throat irritation, pharyngolaryngeal pain,** diarrhea
- **Wash daily** in warm soapy water (mouthpiece assembly and filter shells)
- **Proprietary nebulizer + 13 additional accessories** listed in patient starter kit

INHALED Ventavis® (iloprost) INHALATION SOLUTION

$73M (U.S., 2016)

~$270-$406k patient/yr

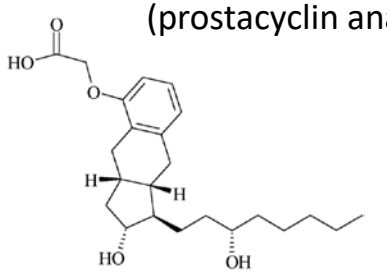
- **4-10 mins, 6-9x daily**, titrated to target of **5 mcg/dose**
- Most common AEs - flushing, **cough**, headache, trismus, insomnia, nausea, hypotension, vomiting, alkaline phosphatase increased, flu syndrome, back pain, tongue pain, palpitations, syncope, GGT increased, muscle cramps, hemoptysis, pneumonia
- **Wash after each use** in warm soapy water & **boil weekly**
- **Proprietary nebulizer + 10 additional spare parts** listed in patient user guide

Decision Resources Group, Landscape & Forecast, PAH, Nov 2016; Tyvaso (treprostinil) [package insert] 2014; Ventavis (iloprost) [package insert] 2013; UTHR 10K 2016; Actelion 10k 2016; RED BOOK Online®search results - MICROMEDEX® [Internet]. [cited 2017 Jun 27]. Calculated as Wholesale Acquisition Cost (WAC) Price multiplied by recommended doses x 365 days a year; 6MWD – 6 minute walk distance; Tyvaso is a registered trademark of United Therapeutics Corporation. Ventavis is a licensed trademark of Bayer Schering Pharma AG.

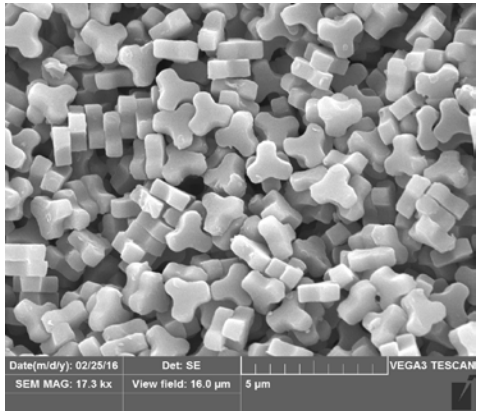
LIQUIDIA TECHNOLOGIES

An ideal inhaled product = trusted drug + precise particle + proven device

Treprostinil
(prostacyclin analog)



Widely used via i.v., s.c., inhaled, oral routes



Designed to enhance delivery and deep-lung penetration

RS00 Model 8 (DMF # 18418)

Disposable & long track record

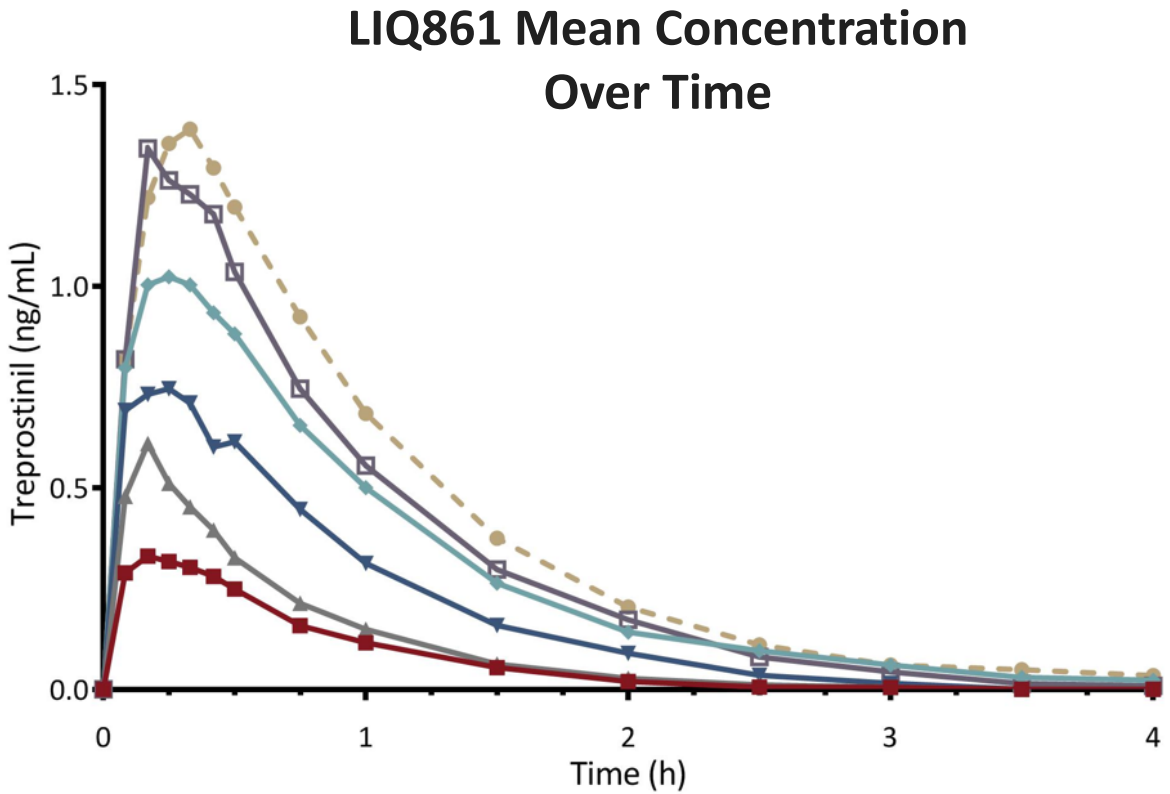
1. **Leverages benefits of local delivery in the lung**
2. **Delivers higher dose levels above the limitations of nebulization**
3. **Provides easy, attractive administration**

LIQUIDIA TECHNOLOGIES

LIQ861 was observed to be well-tolerated with no reported SAEs

Phase 1 Clinical Study

- n=57 healthy volunteers
- Single, ascending dose
- Dose proportional response
- No dose-limiting toxicities
- Treatment-emergent adverse events (TEAEs) related to treatment were mild
- No serious adverse events (SAEs)



Capsule (fill wt.)	25 µg	50 µg	75 µg	100 µg	125 µg	150 µg
Emitted Dose (mcg)	20	40	60	80	100	120
Breaths	1-2	1-2	1-2	1-2	2-4	2-4

Ph 1 study design: 57 subjects enrolled; 43 on LIQ861, 14 on placebo; each cohort = 8 subjects in 3:1 ratio (LIQ861:placebo) – randomized, placebo-controlled; Royal M, Roscigno R, et al. Preclinical and Phase 1 Clinical Characterization of LIQ861, a New Dry Powder Formulation of Treprostinil [poster]. In: PVRI Annual World Congress; 2018 January 21-24; Singapore, Asia.

LIQUIDIA TECHNOLOGIES

After consultation with the FDA, we advanced to a single, pivotal trial (INSPIRE) pursuant to the 505(b)(2) pathway in the U.S.

Investigation of the **S**afety and **P**harmacology of Dry Powder **I**nhalation of T**re**prostinil

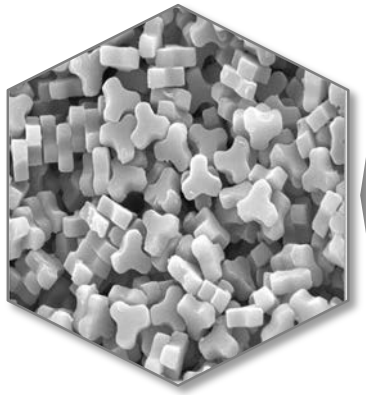
Design	•	Open-label, U.S. multicenter with safety data expected in 1H:19
Population	•	At least 100 WHO Group I (PAH) patients; NYHA Class II, III and IV
Criteria	•	On stable dose of Tyvaso for ≥3 months (or) taking ≤2 approved non-PGI oral PAH therapies
Primary endpoint	•	Incidence of TEAEs and SAEs
Secondary endpoints	•	6 minute walk distance
	•	Sustained treatment transition (Tyvaso transitions)
	•	NYHA functional class improvement
	•	Quality of life questionnaire / Patient satisfaction with LIQ861 DPI
PK Sub-Study	•	Transitions from Tyvaso in a one-directional crossover to compare bioavailability and PK
Data collection	•	Baseline, Week 2, Month 1, Month 2 Visits, with bimonthly follow up for up to 30 months

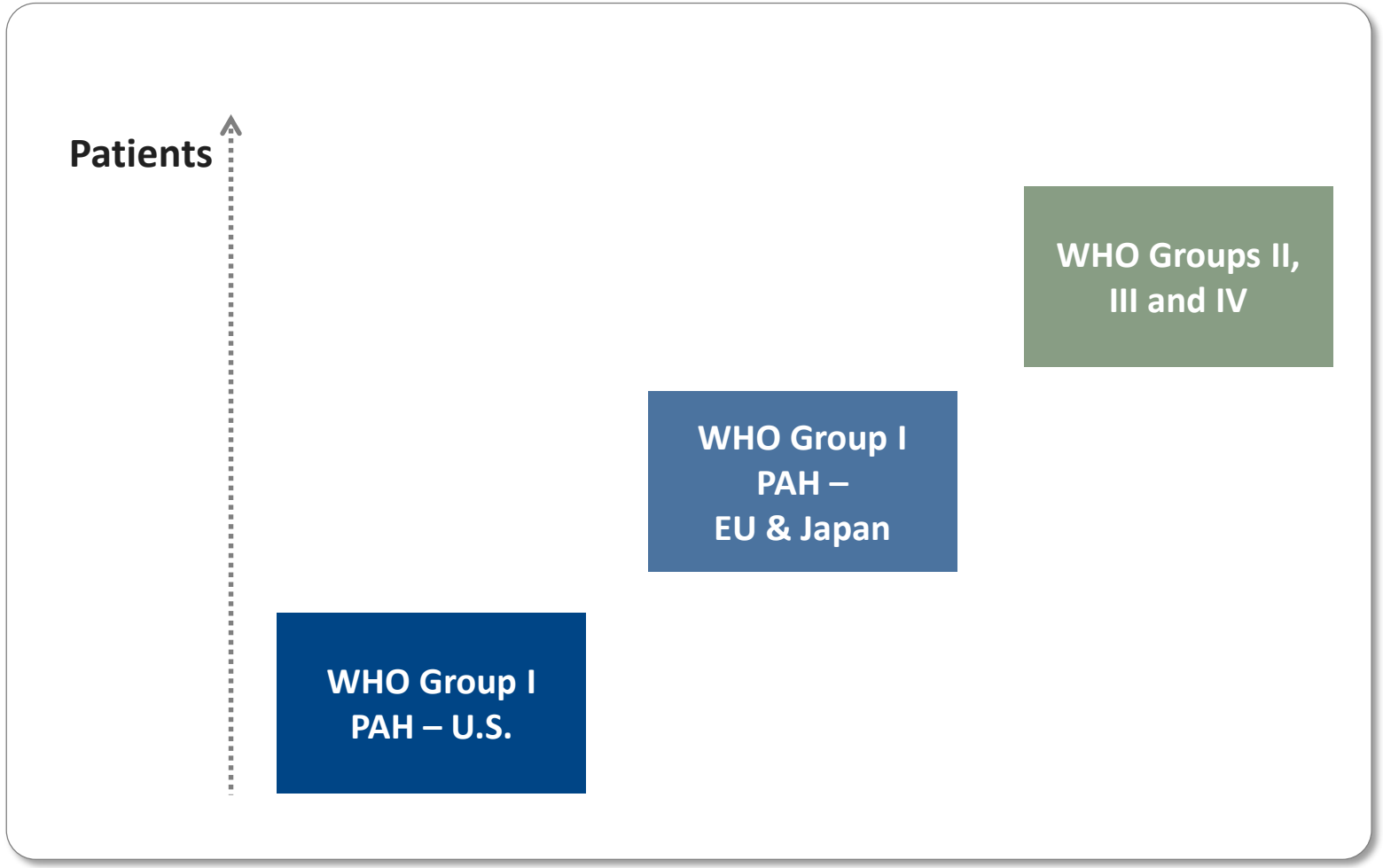
We intend to also initiate a clinical trial in the 2H:2018 that explores the hemodynamic effects of LIQ861 in PAH patients to add to our understanding of safety, tolerability and PK.

https://clinicaltrials.gov/ct2/show/NCT03399604; PGI – prostacyclin; TEAEs – treatment-emergent adverse events; SAEs – serious adverse events

LIQUIDIA TECHNOLOGIES

LIQ861 = Pipeline in a PRINT® particle





LIQ865 for Local Post-Operative Pain

PRINT® bupivacaine, sustained-release injectable

Significant unmet medical need for extended, non-opioid pain relief

- Approximately 50%+ of patients report inadequate local post-operative pain relief
- Reducing opioids is a priority for hospitals, payors and FDA
- Improved pain relief and reducing opioid use can drive key metrics, such as faster recovery and time to discharge
- Representing a $776M market, local anesthetics have a known efficacy profile but are limited to 8 hours
- EXPAREL® demonstrates demand for longer acting relief, but too short
  - Physicians are seeking 3 to 5 days of pain relief, according to our market research
  - EXPAREL reportedly offers 24-36 hours in practice

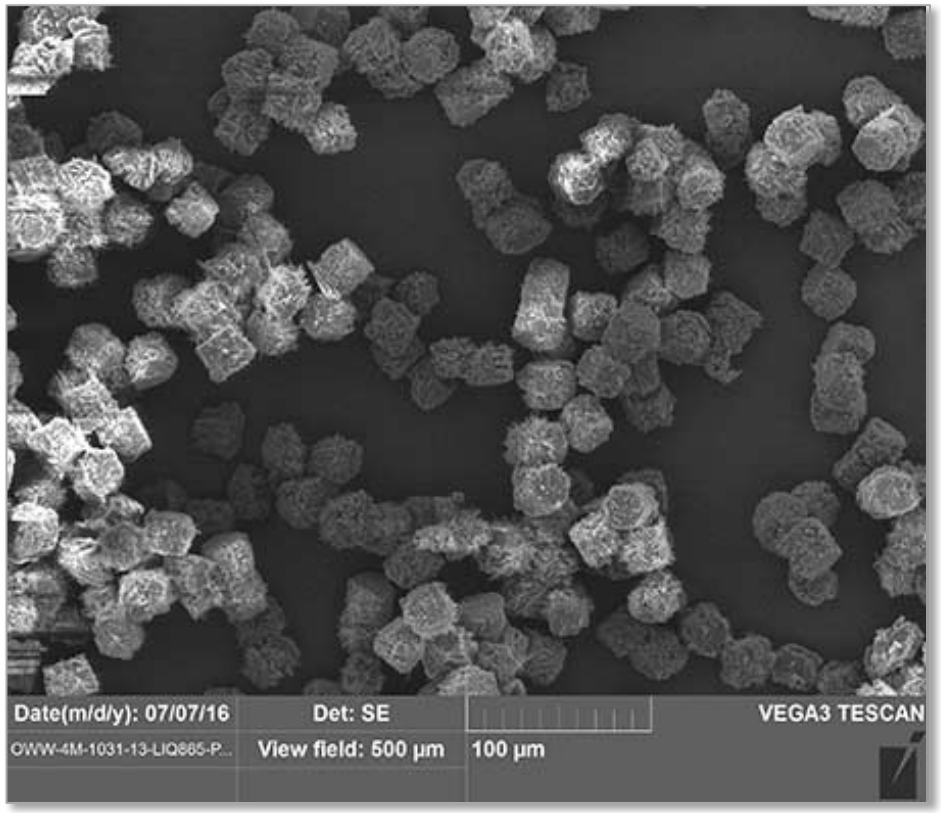
Wheeler, 2011; Collins, 2013; Shah 2017; EXPAREL package insert; EXPAREL® is a registered trademark of Pacira Pharmaceuticals; IMS data 2016; accessed 18 Jan 2018

LIQUIDIA TECHNOLOGIES

LIQ865 offers the potential for an optimal product profile

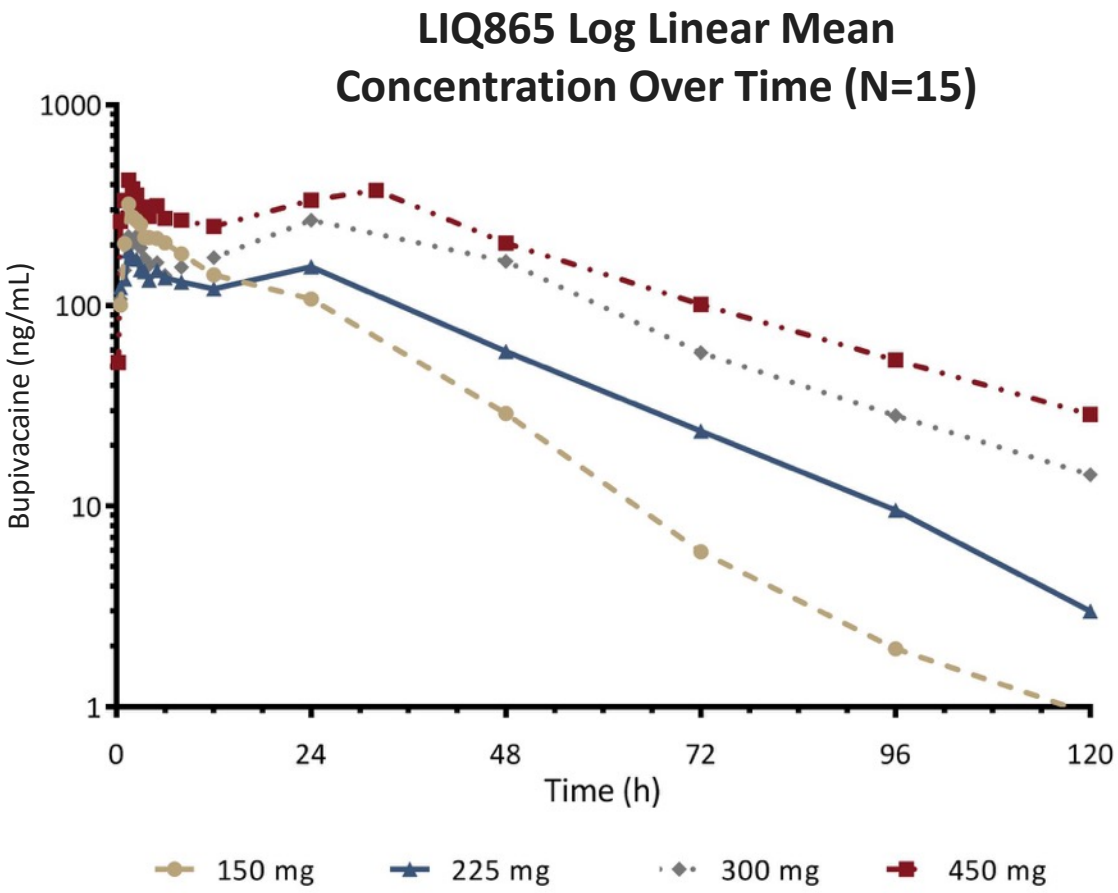
- 3 to 5 days duration of action
- Consists of bupivacaine + PLGA, commonly used in sutures and sustained-release therapeutics
- Easy, flexible reconstitution and application at the surgical site
- We have observed compatibility with co-administration of instant-release local anesthetics
- Potential for dose dumping minimized with LIQ865

LIQ865: Bupivacaine + PLGA blend



LIQ865 was well-tolerated at all doses with dose proportional PK in Ph1

- Ph1a, healthy volunteers in Denmark
- Single, ascending dose
- No dose-limiting toxicities
- All adverse events were mild to moderate
- C_{max} well below reported thresholds for neurotoxicity and cardiotoxicity
- QST demonstrated pharmacodynamic effect for up to 5 days



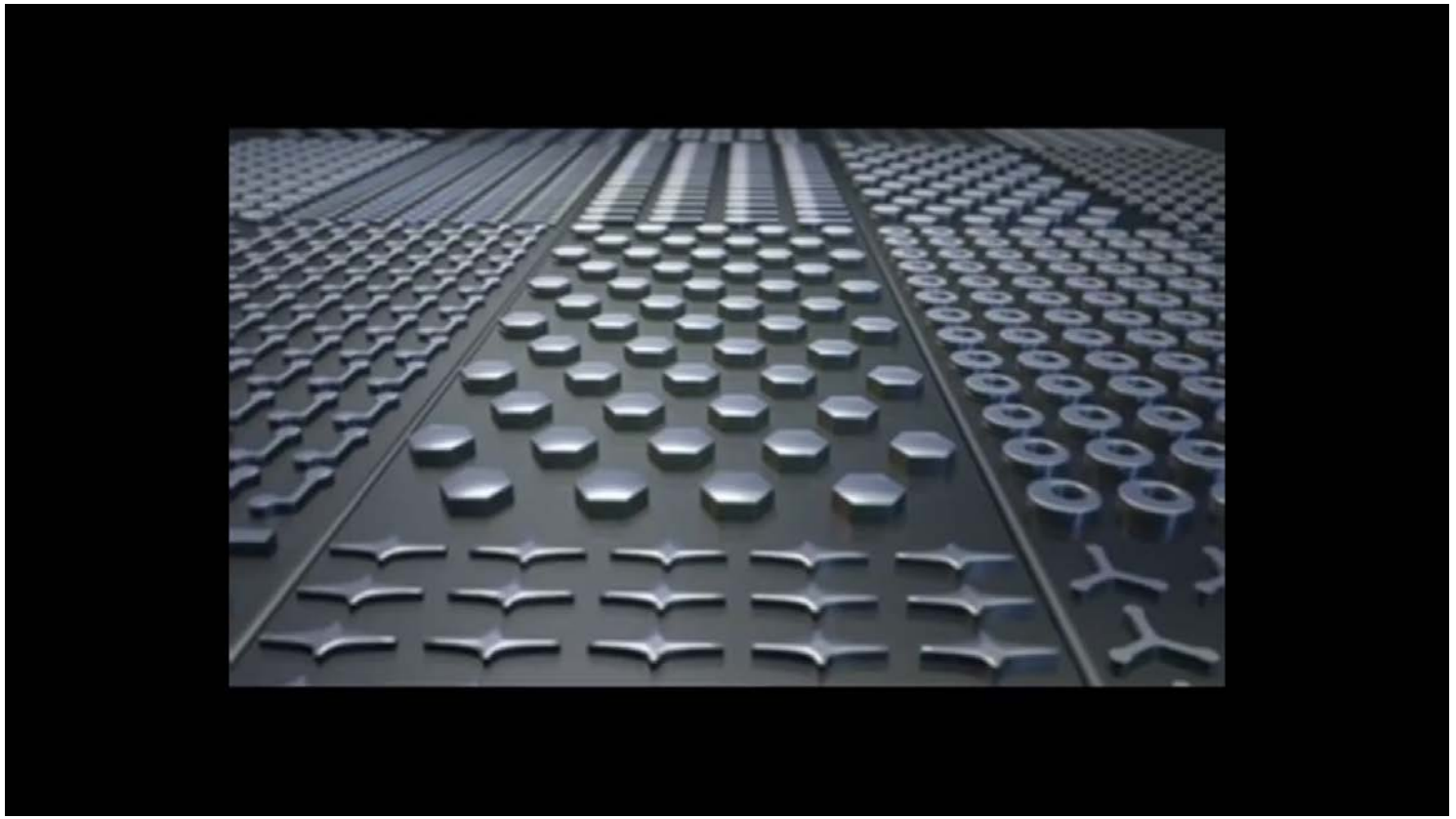
Our recently completed Ph1b trial in the U.S. showed similar PK results which support commencing Ph2-enabling toxicology studies in the 2H:2018.

Randomized, double-blind, controlled, single ascending dose, safety, PK ,PD trial of two different formulations of LIQ865 in 28 healthy male volunteers; QST - Quantitative Sensory Testing

PRINT® Technology

Discrete particles through a molding process

Overview of PRINT® Technology



Play video file (excerpt from website video); for PDF files, play video at http://liquidia.com/print-technology/

LIQUIDIA TECHNOLOGIES

PRINT® production technology is highly capable and widely applicable

Preclinical and R&D
Highly versatile, flexible

Lab Line 2 (2008)

- Highly agile platform enabling process experimentation
- Ideal for early stage process development

cGMP Process Development
Optimization, scale-up

Lab Line 3 (non-cGMP 2015; cGMP 2017)

- Capable of larger batches with increased process control
- We believe Lab Line 3 is fully cGMP compliant to support product launch

cGMP Production
Repeatable and deployable

Commercial Line 1 (expected 2018)

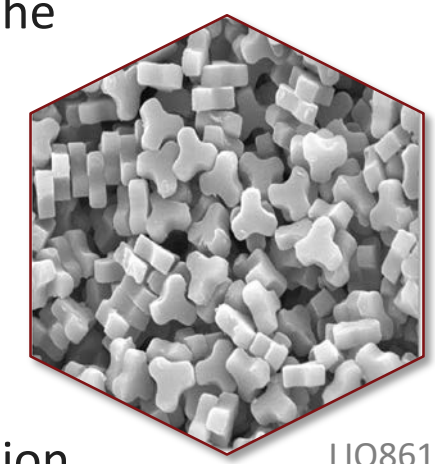
- Optimized drug substance production process
- Designed for continued market supply and scale

LIQUIDIA TECHNOLOGIES

Novel products via precise control of drug particles

Late-stage clinical biopharmaceutical company focused on transforming the lives of patients

- LIQ861, Ph3 product candidate, with a clear regulatory path targeting a segment of the ~$3.7B U.S. market[1] for PAH[2]
- Broader LIQ861 market opportunity beyond U.S. and WHO Group I – pipeline in a PRINT® particle
- LIQ865, Ph1 product candidate, targeting unmet need for local post-operative pain
- PRINT® technology not limited by therapeutic area, molecule or route of administration
- Strategic collaborations to advance new PRINT® programs/capabilities
- Seasoned team with relevant commercial and disease area expertise

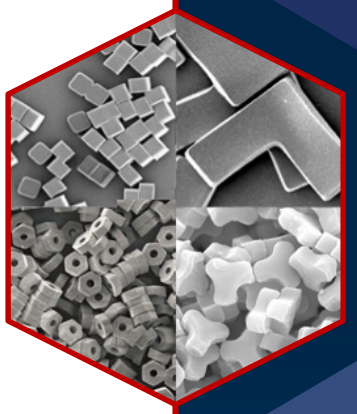


LIQ861

1. Decision Resources Group, Landscape & Forecast, PAH, Nov 2016 ; 2. Pulmonary arterial hypertension

LIQUIDIA TECHNOLOGIES

LIQUIDIA TECHNOLOGIES



Thank You