

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

February 26, 2018

Date of Report (Date of earliest event reported)

Windtree Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

000-26422
(Commission File Number)

94-3171943
(IRS Employer
Identification Number)

2600 Kelly Road, Suite 100
Warrington, Pennsylvania 18976
(Address of principal executive offices)

(215) 488-9300
(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 8.01. Other Events.

Executives of Windtree Therapeutics, Inc. (the “Company”) plan to present to potential investors the information contained in the presentation attached to this Current Report on Form 8-K as Exhibit 99.1.

Changes incorporated into this presentation include (i) additional information related to the Company’s AEROSURF® development program, including updated testing of the Company’s proprietary aerosol delivery system (“ADS”) and updated results for the phase 2 clinical programs in premature infants 26-to-34 weeks gestational age incorporating certain post trial follow-ups, and (ii) additional information concerning the potential surfactant market in China.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits:

[99.1 Windtree Therapeutics, Inc. Presentation dated February 2018.](#)

Cautionary Note Regarding Forward-looking Statements:

To the extent that statements in this Current Report on Form 8-K are not strictly historical, including statements as to business strategy, outlook, objectives, future milestones, plans, intentions, goals, future financial conditions, future collaboration agreements, the success of the Company’s product development, cash flows, future revenues, the timing of planned clinical trials or otherwise as to future events, such statements are forward-looking, and are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements contained in this Current Report are subject to certain risks and uncertainties that could cause actual results to differ materially from the statements made. Such risks and others are further described in the Company’s filings with the Securities and Exchange Commission including the most recent reports on Forms 10-K, 10-Q and 8-K, and any amendments thereto. Any forward-looking statement made by us in this Current Report on Form 8-K is based only on information currently available to us and speaks only as of the date on which it is made. The Company undertakes no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Windtree Therapeutics, Inc.

By: /s/ Craig Fraser
Name: Craig Fraser
Title: President and Chief Executive Officer

Date: February 27, 2018



WINDTREE
THERAPEUTICS™



Corporate Presentation
February 2018

OTCQB:WINT

Forward-looking Statement

To the extent that statements in this presentation are not strictly historical, including statements about the Company's clinical development programs, business strategy, outlook, objectives, plans, intentions, goals, future financial conditions, future collaboration agreements, the success of the Company's product development activities, or otherwise as to future events, such statements are forward-looking, and are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements contained in this presentation are subject to certain risks and uncertainties that could cause actual results to differ materially from the statements made. These risks are further described in the Company's periodic filings with the Securities and Exchange Commission (SEC), including the most recent reports on Forms 10-K, 8-K and 10-Q, and any amendments thereto ("Company Filings")

Under no circumstances shall this presentation be construed as an offer to sell or as a solicitation of an offer to buy any of the Company's securities. In addition, the information presented in this deck is qualified in its entirety by the Company Filings. The reader should refer to the Company Filings for a fuller discussion of the matters presented here.

Windtree Therapeutics

- Public, small cap biopharmaceutical / medical device company
- Based in Warrington, PA with approximately 27 employees
- Focused in the acute respiratory area with a lead program expected to address a significant need and expand the Respiratory Distress Syndrome (RDS) in premature infants market (currently valued at ~\$400 million*)
- Windtreetx.com



*IMS MIDAS data

Respiratory Distress Syndrome (RDS)

Primary characteristic is surfactant deficiency in underdeveloped lungs of premature infants (born with a lack of natural lung surfactant required for open airways and proper gas exchange – O₂ in and CO₂ out)

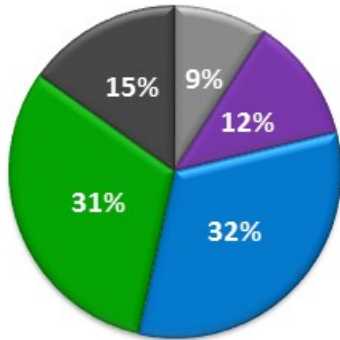
American Academy of Pediatrics guidelines recommend providing surfactant replacement within the first hours of life¹

Neonatologists believe the **highest unmet need in RDS is the ability to deliver surfactant noninvasively** to patients²



Prevalence of RDS Spans Across Gestational Ages / Severity

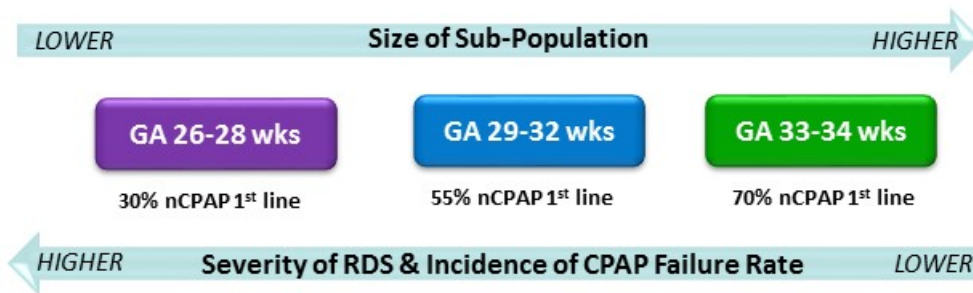
% of RDS Population



RDS Prevalence

<26 weeks GA	>95%
26-28 weeks GA	85-95%
29-32 weeks GA	65-75%
33-34 weeks GA	40-50%
35-36 weeks GA	5-10%

AEROSURF® Clinical Development Program



Source: WINDTREE primary market research (2014); IMS MIDAS data (2012); CDC National Vital Statistics, 2014, Healthcare Costs and Utilization Project (HCUP), 2013; Agency for Healthcare Research and Quality (AHRQ), 2012; Births by birth weight (CDC Website).

Current RDS Treatment Pathways

Initial treatment options include invasive and non-invasive methods:



~40%



~60%

Surfactant Therapy

+

Invasive mechanical ventilation (IMV)

- Animal-derived surfactant
- Delivered via intubation, usually in combination with mechanical ventilation

- Requires sustained intubation
- Supports breathing until patient can be weaned

nCPAP Support until presumptive endogenous surfactant production

- Non-invasive nasal delivery of continuous positive airway pressure (nCPAP)
- Supports breathing until the infant can be weaned

TRADE-OFFS

Timely therapy delivery

vs.

Exposure to known significant complications

Avoid exposure to known significant complications

vs.

Cannot deliver surfactant and risk failure

nCPAP failure

>50% are intubated and ventilated

Clinicians Seeking a Noninvasive Way to Deliver Surfactant

What is wanted¹:

- ✓ Avoid the risks and complications associated with delivery of surfactant therapy via intubation and mechanical ventilation
- ✓ Possibility of repeat doses
- ✓ Avoid clinical instability associated with administration of liquid surfactant bolus administration
- ✓ Enable administration by non-specialist staff
- ✓ Reduce cost of treating premature infants



"...optimization of less invasive method of surfactant administration will be one of the most important subjects for research in the field of surfactant therapy of RDS in coming years".

Kribs A. How best to administer surfactant to VLBW infants. Arch Dis Child Fetal Neonatal Ed 2011;doi:10.1136.

Windtree Technology Platform - AEROSURF®

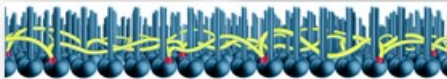
Potential to Provide Both Non-Invasive and Invasive Solutions to Treat RDS

Proprietary Synthetic
KL4 Surfactant

Designed to be structurally similar to human
lung surfactant

Liquid KL4 surfactant (intratracheal instillate) for
RDS approved by the FDA

Lyophilized (freeze-dried) KL4 surfactant –
currently being developed for AEROSURF®



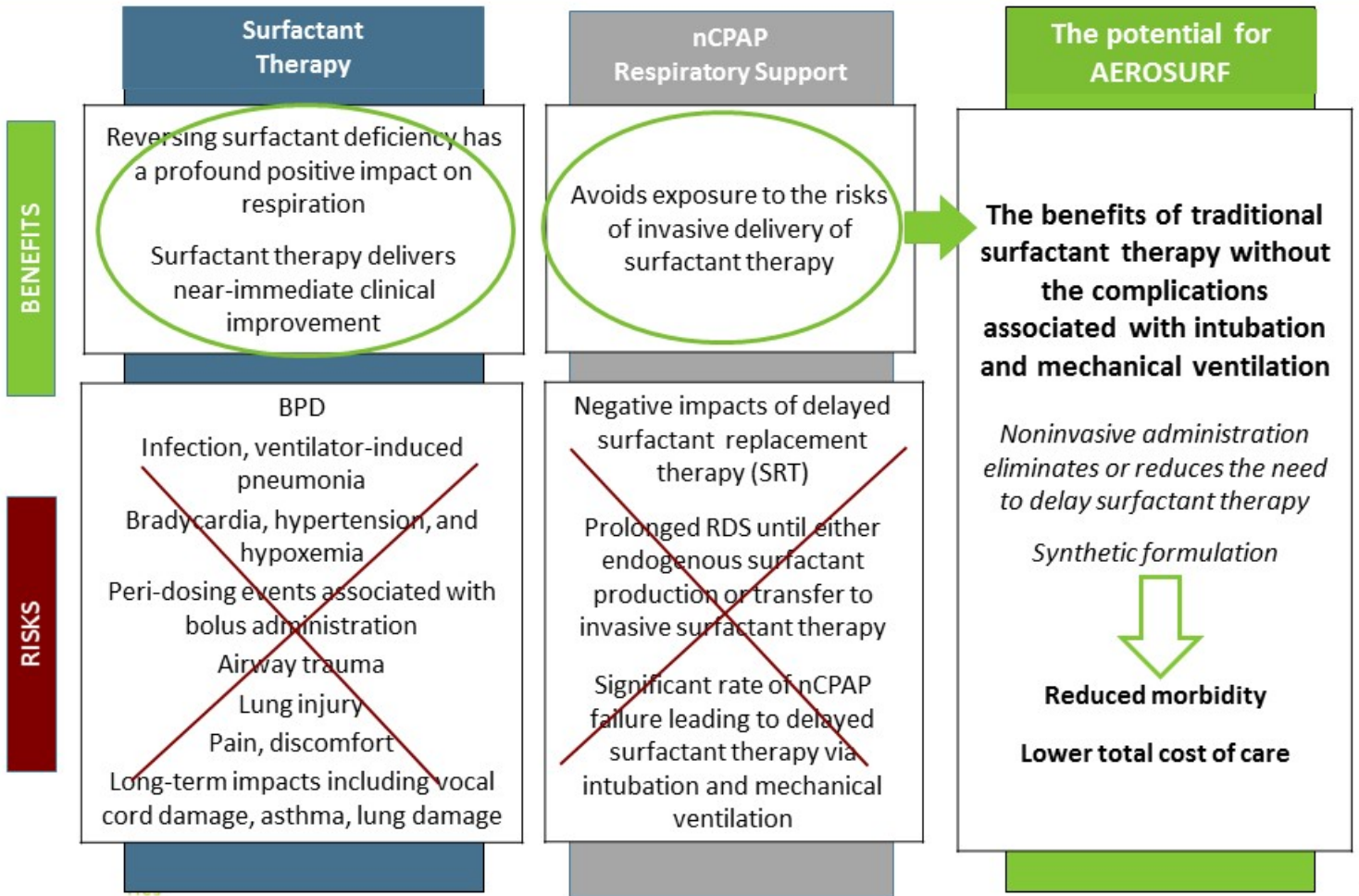
+

Proprietary Innovative Aerosol
Delivery System (ADS)

Designed specifically to aerosolize
and deliver KL4 surfactant



Transformative Potential of AEROSURF®





#1 stated unmet need in RDS

“Noninvasive surfactant delivery” = 54% top, unaided response (3x higher than next response)¹

20-30% reduction in nCPAP failure is meaningful

Results in >40% reported, expected patient share¹

↑Price (but ↓Total Hospital Cost)

Potential for positive health economics related to noninvasive approach, cost avoidance, etc.²

Market Expansion

Potential to bring surfactant therapy to new, lower skilled and less certified hospitals and geographies due to noninvasive, less specialized delivery³

1. N=278 Neonatologists, US & EU; WINDTREE primary market research (2014)

2. WINDTREE primary market research (2014)

3. Windtree research and estimates

Significant RDS Global Revenue Opportunity



U.S. Market Example:
 ~385,000 preterm infants per year,
 ~134,000 with RDS
China Market:
 ~1.2-1.4MM preterm,
 ~500,000 -635,000 with RDS

Regions	Estimated 2016 Annual Revenue Invasive surfactant therapy only*
US	\$90 million
EU/ME	\$85 million
LATAM	\$95 million
China / Asia	\$115 million
GLOBAL	~\$400 million

- **Globally, only 50% to 60% of RDS patients currently treated with surfactant therapy**
- Opportunity to **expand treatment population due to easier, non-invasive approach** may enable delivery in less specialized centers
- Positive pharmacoeconomic **value** as well as **capturing cost of respiratory device costs (not just drug) supports higher price**

**\$800MM - \$1B
 AEROSURF®
 Potential**



CDC National Vital Statistics; UNICEF data; Windtree market research; IMS MIDAS data; private companies with access to government purchasing records for Latin America, China and Middle East

China Opportunity – License with Lee’s Pharm



- Currently, the top animal-derived surfactant sales market, but still very underpenetrated
- 16-19MM births / year (compared to 4MM in the U.S.)
 - About 1.2- 1.4MM are premature and 500,000-600,000 have RDS
- New second child policy promoted by China government is expected to increase the birth rate approx. 20% (with more of these being later in age and higher risk)
- New health policy, increased investment, more of the population under medical care with a focus on babies
- Importantly, a non-invasive approach may allow for surfactant administration by lower skilled healthcare personnel and expand the market to second-line city and rural hospitals
- The potential for additional indications is significant – particularly in acute respiratory care such as anti-viral, severe pneumonia, lung radiation oncology, etc.
 - Taiwan and Thailand are other territories of value with a good neonatal network
- In addition to AEROSURF®, with regulatory and manufacturing strategy in China, we may potentially leverage our FDA-approved SURFAXIN® asset and develop and market for SURFAXIN LS™ (lyophilized KL4 surfactant) for non-aerosolized applications, including RDS



Medical Device and Device Studies

Innovative Aerosol Delivery System (ADS)



Proprietary Innovative Aerosol
Delivery System (ADS)

Designed specifically to aerosolize
and deliver KL4 surfactant

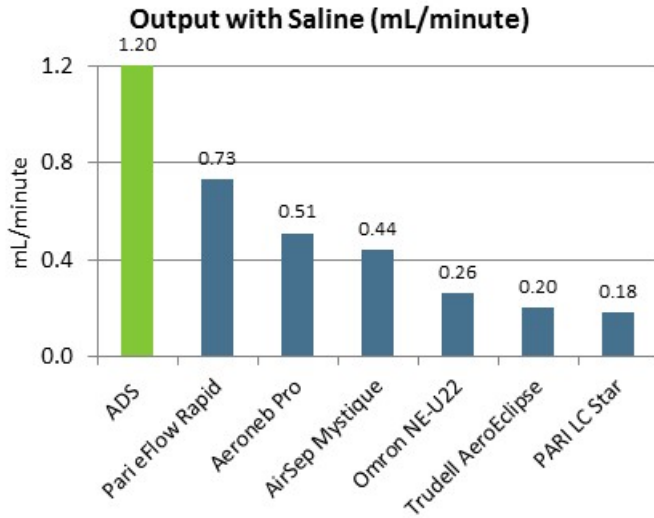


- AEROSURF® innovation made possible by novel medical device
- Unique aerosol delivery system (ADS) technology utilizing pressure and heated capillary has demonstrated ability to break through the barrier to effectively aerosolize KL4 surfactant
- Controlled, effective and reproducible performance validated in bench comparative studies and in the lung deposition study
- Developed in partnership with Battelle Memorial Institute

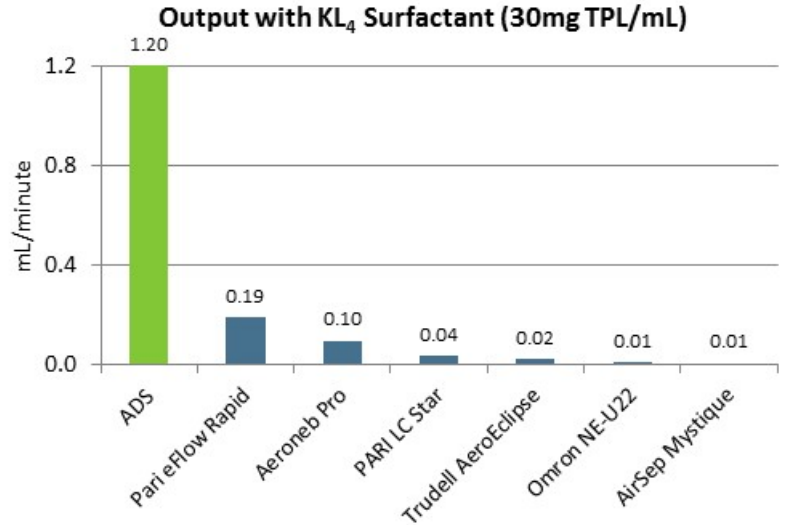
ADS Technology Provides Better Output Rate

Aerosolizes surfactant as well as saline

Aerosol output rate



Saline output of ADS technology is close to double the next best technology tested

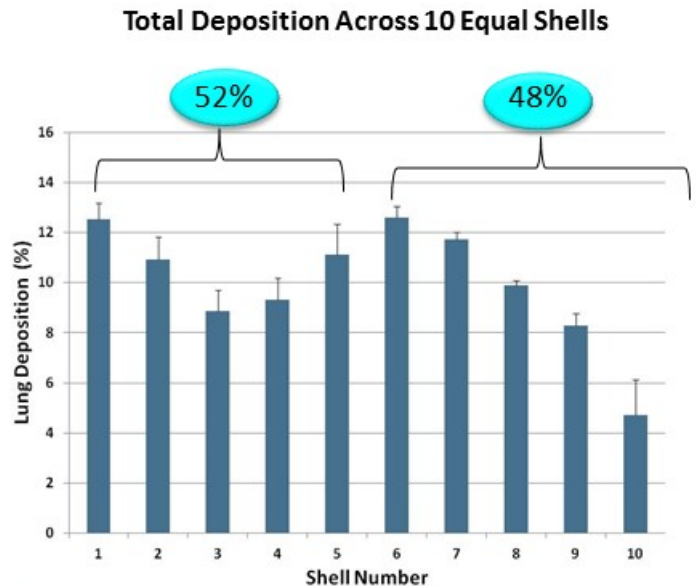
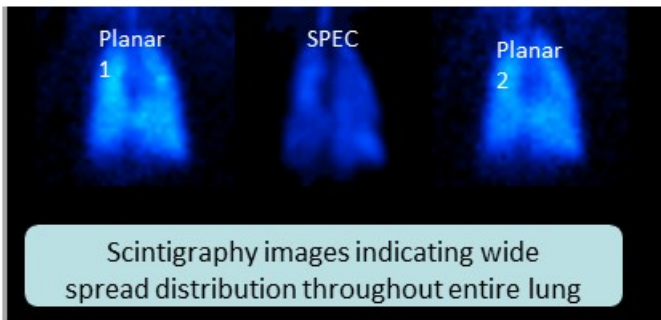


KL₄ surfactant output of ADS technology is six times the next best technology tested

Unlike other available aerosol technologies, the **ADS system produces more particles in the optimal 1 to 3µm range** than a commercially available vibrating mesh nebulizer, and delivers a **consistent KL₄ surfactant aerosol output**, minute by minute, device after device

Lung Deposition Study in Non-Human Primates

- Use of non-human primates (*cynomolgus* macaques) - Nose, throat, & lung anatomy comparable to infants; respiratory function similar to preterm infants
- Radiolabeled KL4 surfactant aerosolized using Aerosol Delivery System (ADS), delivered via nasal cannula in 3-10 min exposures inhaled from a nCPAP circuit
- Measured total & regional pulmonary deposition by a series of gamma images with SPECT data used to determine regional lung deposition using a quantitative model



Drug deposition observed across all areas of the lung after 3 to 10 min of inhalation demonstrating generally uniform distribution of drug between the inner half and the outer half of the lungs

AEROSURF[®]

Clinical Studies

AEROSURF[®] Phase 2 Program Components

Study / Activity	Rationale / Objective	Status
Phase 2a	Initial safety & tolerability (29-34 wk gestational age (GA))	Completed
2a Expansion	Extending the dose range in 29-34 wk GA	Completed
Phase 2a	Safety and tolerability in 26-28 wk GA	Completed
Phase 2b	28 – 32 wk GA - Dose and evidence of clinical effect	Completed
<i>Other Studies:</i>		
Observational Study	Understand treatments and outcomes for our target population	>2000 pts data collection complete
Lung Deposition Study	Assess inhaled surfactant distribution in non-human primate lungs	Completed
<i>Other Activities:</i>		
Licensing in Asia	Access ex-US opportunity and development support with Lee's	Completed
Device Development	Design verification, validation (DV) and clinical experience with next generation, phase 3 and commercial device	DV on Track for 1H 2018
FDA Interaction	Confirm strategic direction and operational approach	Successful Type C meetings as well as Fast Track Designation

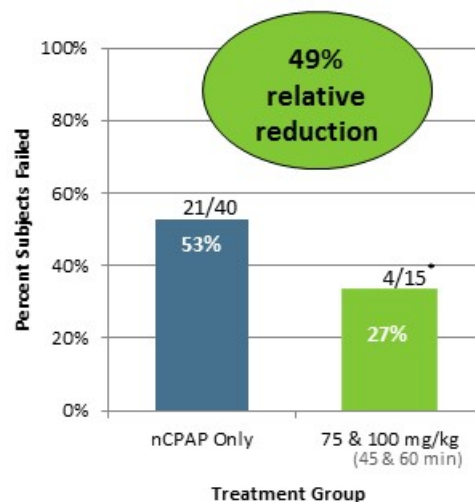
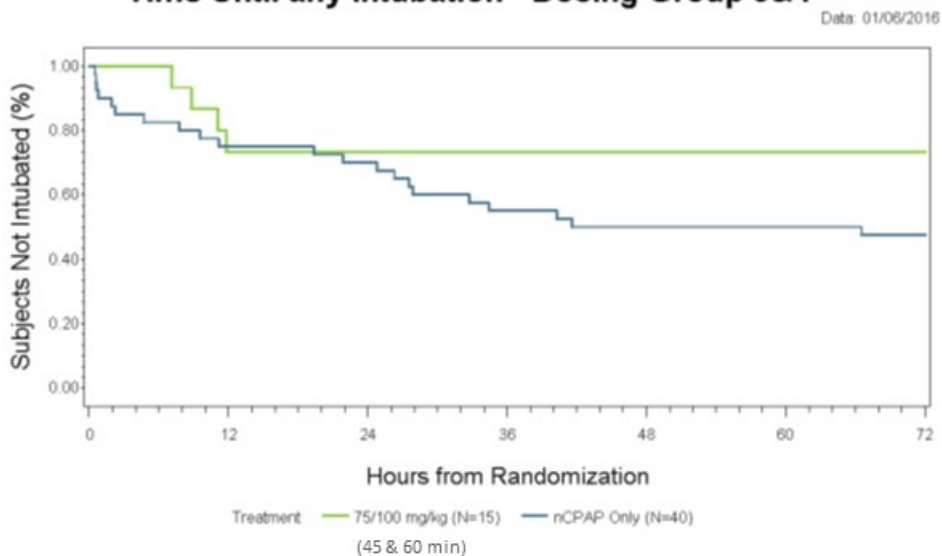


Phase 2a Study (29 to 34 wk GA)

45 and 60 Minute Dose Groups - nCPAP Failure through 72 hours

Time to nCPAP Failure

Time Until any Intubation - Dosing Group 3&4



At 72 hours post-dosing, 27% of AEROSURF® patients in the combined 45 and 60 minute dose groups required intubation compared to 53% in the control group; a relative reduction in nCPAP failure of 49%

AEROSURF® Phase 2a Study in 26-28 week GA

Safety and Tolerability Assessment

- The FDA requested that we conduct a separate safety study in smaller premature infants before including them in blinded studies
- Multicenter, randomized, open-label, controlled study in 48 premature infants 26 to 28 weeks GA receiving nCPAP for RDS to evaluate the safety and tolerability of aerosolized KL4 surfactant administered in three escalating doses (8 treatment, 8 control per dose group)
- The primary objective of the study was successfully met. The safety and tolerability profile of AEROSURF® remains generally comparable to the nCPAP control group across gestational ages
 - The safety profile of AEROSURF in younger GA neonates allows this group to be included in AEROSURF trials going forward
 - 26-27 week GA neonates are more surfactant deficient and may require additional surfactant administration. The phase 2 safety profile will allow us to administer more surfactant to babies that need it
- Despite limited treatment numbers, we observed a positive early effect on prolonging the time to intubation (a consistent finding across studies) as well as signs that nCPAP failure can be reduced in this GA range and believe we have a dose identified to produce the desired effect in clinical studies moving forward

AEROSURF® Phase 2a in 26-28 week GA - Potentially Important Observation Related to Bronchopulmonary Dysplasia (BPD)

BPD	Rate	Patients
AEROSURF	0%	0/24
Control	25%	6/24

- Bronchopulmonary Dysplasia (BPD) or chronic lung disease of the newborn is one of the most common complications of prematurity and RDS treatments. It occurs in up to 40% of infants born at or before 28 week GA who have required intubation, mechanical ventilation and oxygen therapy.
- BPD is associated with ongoing pulmonary disease, neurodevelopmental impairment and increased healthcare utilization.
- Despite its importance, effective prevention and treatment strategies for BPD have been elusive and there are no approved treatment.
- BPD contributes to substantial patient morbidity and healthcare costs.
- Decreasing BPD would address a significant unmet medical need and represents an upside scenario in our outlook. Additional study is warranted within our future RDS trials.

AEROSURF® Phase 2b Study (28 to 32 wk GA)

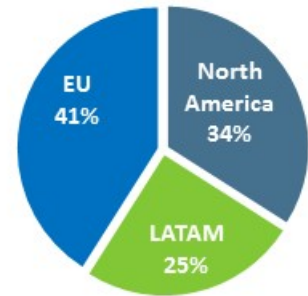
Trial Objectives

- Evaluate safety and tolerability
- Demonstrate efficacy
- Determine effect size for phase 3 planning
- Dose(s) selection for phase 3
- Evaluate and further develop our Phase 2 prototype device performance

Trial Design

- 3 dose groups:
 - ✓ 25 minute, 40mg/kg (up to 2 repeat doses)
 - ✓ 50 minute, 80mg/kg (up to 2 repeat doses)
 - ✓ nCPAP alone Control
- Up to 240 (80 per group) total
- Treatment assignment was blinded
- Infants with RDS between 28-32 wk GA

221 Patients Enrolled



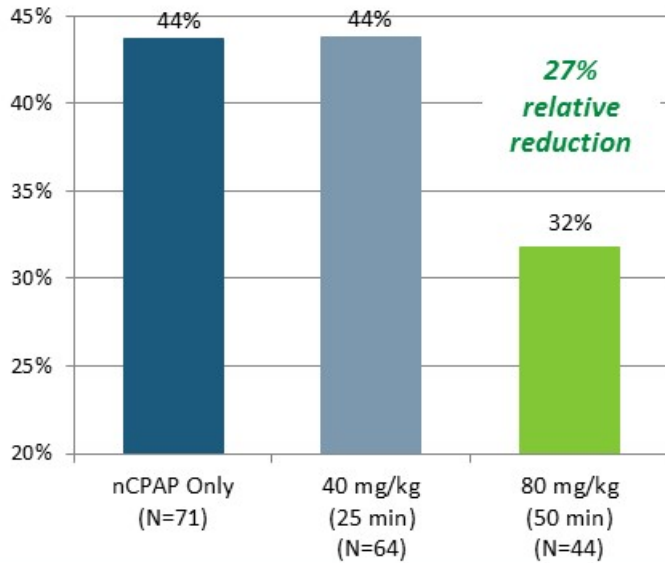
47 sites enrolled:

- | | |
|---------------|----|
| • US | 17 |
| • Canada | 3 |
| • Poland | 9 |
| • Netherlands | 1 |
| • Hungary | 6 |
| • Ireland | 1 |
| • Chile | 7 |
| • Colombia | 3 |

AEROSURF® Phase 2b Incidence of nCPAP Failure

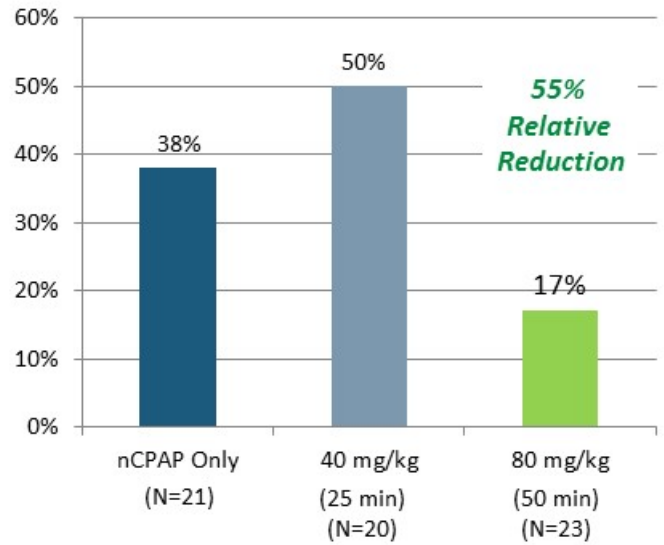
Preplanned mITT Without Treatment Interruptions Demonstrates Targeted Reduction¹

All Sites



AEROSURF® treated patients in the 50 min dose group without treatment interruptions experienced a 12% absolute reduction or a **27% relative reduction** in nCPAP failure compared to control

US Only
(to compare with 2a)

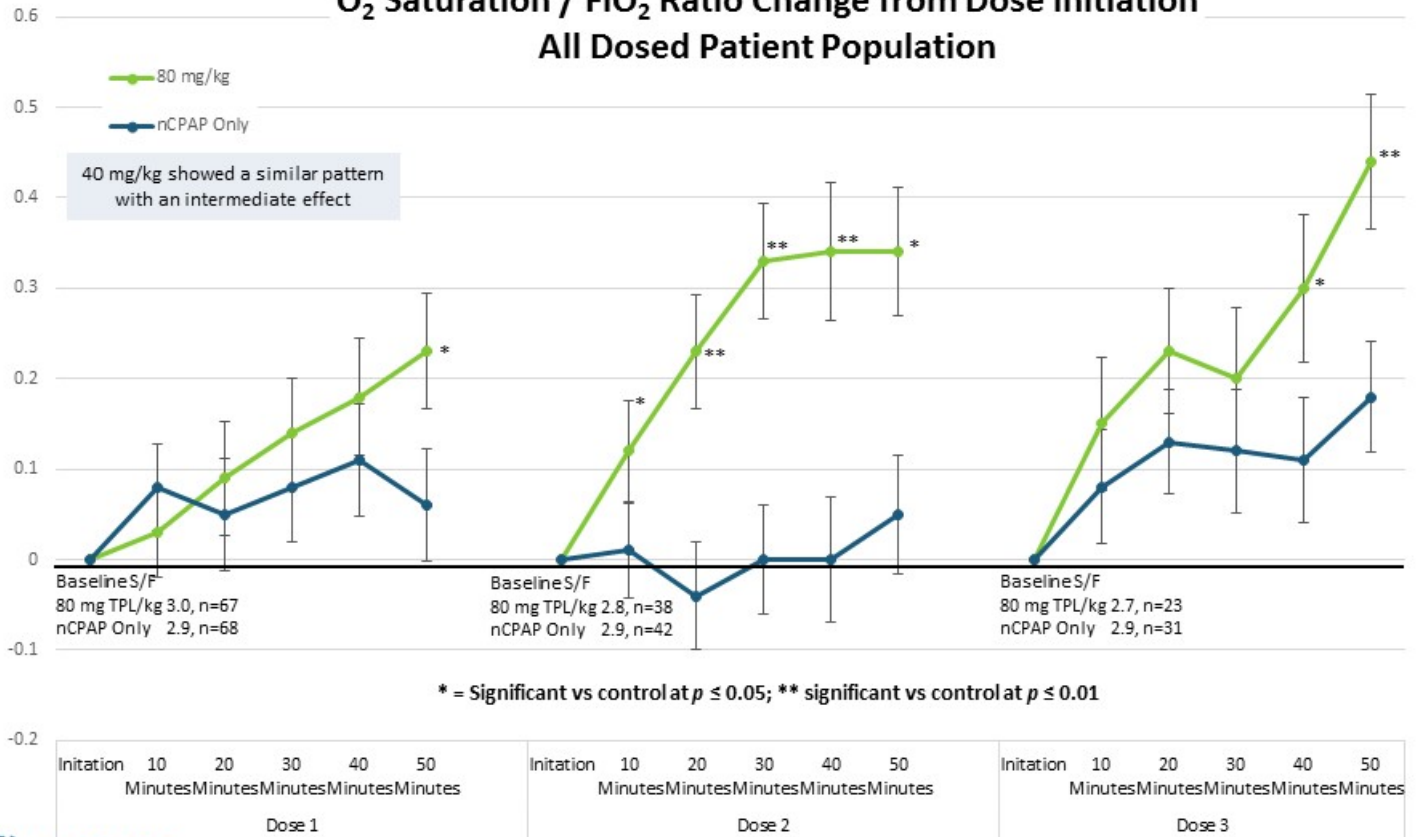


AEROSURF treated patients in the 50 min dose group experienced a 21% absolute reduction or a **55% relative reduction** in nCPAP failure compared to control

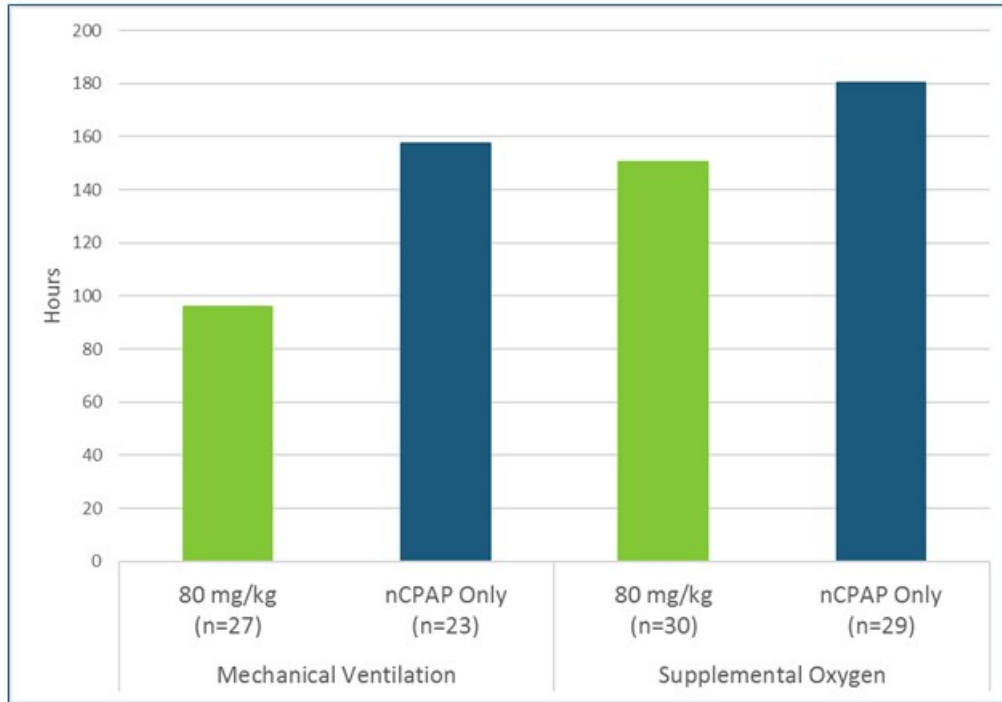
1) The planned top line analysis of the primary endpoint did not show the intended effect due in large part to treatment interruptions in certain patients caused by specific lots of disposable cartridge filters used in the phase 2 prototype device that had a higher tendency to clog

AEROSURF® Phase 2b – Significantly Improved Key Respiratory Parameters

O₂ Saturation / FiO₂ Ratio Change from Dose Initiation All Dosed Patient Population



AEROSURF® Phase 2b - Potential for Reduced Respiratory Support in Patients Who Failed nCPAP When on AEROSURF



In patients who failed nCPAP and required intubation and mechanical ventilation, AEROSURF treated patients appeared to require shorter duration of mechanical ventilation and time on supplemental oxygen

Phase 2b - Safety & Tolerability Profile

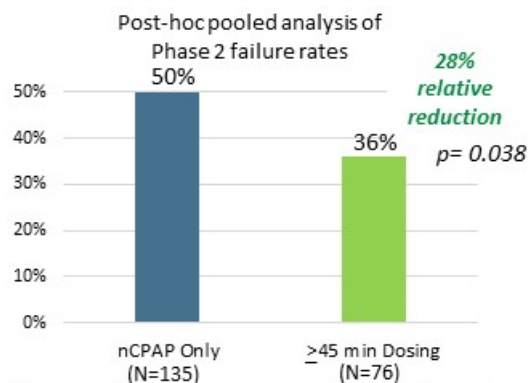
Similar for Treatment and Control Populations

- The adverse event and serious adverse event profile was similar across the 3 groups
- Complications of prematurity were also similar

	40 mg/kg (25 min)	80 mg/kg (50 min)	nCPAP Only
Acquired Sepsis	12 (17%)	13 (18%)	16 (23%)
Air Leak	7 (10%)	6 (8%)	10 (14%)
Apnea	31 (44%)	27 (38%)	28 (39%)
PVL	1 (1%)	1 (1%)	1 (1%)
PDA	18 (26%)	24 (33%)	24 (34%)
IVH	8 (11%)	10 (14%)	11 (15%)
NEC	1 (1%)	7 (10%)	6 (8%)
ROP	3 (4%)	6 (8%)	3 (4%)
BPD	7 (10%)	7 (10%)	10 (14%)
Alive without BPD	62 (89%)	64 (89%)	59 (83%)

Summary of Efficacy Signals in the Phase 2 Program

- Post-hoc pooled analysis of patients in the phase 2 program (3 studies) treated in doses ≥ 45 minutes dosed as intended (uninterrupted) shows a notable reduction in nCPAP failure with AEROSURF[®] treatment compared to nCPAP controls



- Beneficial effects reproduced across the phase 2 program when the dose is delivered as intended
 - 2b results are consistent with previous data from the 2a study in 29-34 week GA infants (49% relative reduction in nCPAP failure for combined 45 and 60 minute doses)
- Phase 2a in 26-28 week GA infants also observed an important potential effect on development of BPD with 0% (0 of 24) in treated infants versus 25% (6 of 24) in control as well as a potential reduction of BPD in phase 2b
- AEROSURF patients in the phase 2b study failing nCPAP required less time on oxygen and fewer days on mechanical ventilation

Evolution of Aerosolized Delivery System (ADS) from Phase 2 to the Next Generation, Phase 3 / “Go to Market” Device

Phase 2



- 2012 – 2017
- Developed in conjunction with Battelle Memorial Institute (Battelle)
- Designed and used in prior phase 2 clinical experience
- Battelle manufactures for phase 2 trials

Phase 3 / Commercial



- 2018 and beyond
- Developing in collaboration with Battelle
- Designed for use in the phase 3 clinical trial and commercial application

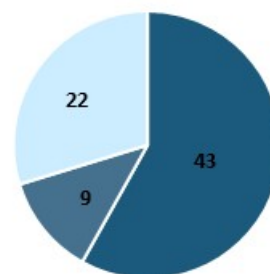
Complete Device Development and Transition to Enhanced Next Generation ADS in 2Q 2018

Next Generation ADS will be Phase 3 and “Go to Market” Device

- Designed to utilize the same aerosol delivery technology to provide comparable key aerosol characteristics of emitted dose and particle size of the phase 2 device for bridging of device and data
- Enhanced ergonomics and user interface:
 - Faster start-up and change-over
 - Built in step by step instructions with detailed images, if needed
- Simplified disposable set up to help prevent incorrect assembly and inadvertent re-use
- Enhanced controls and dose monitoring
- Modular design for easier maintenance, etc.



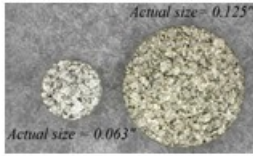
DV Test / Certifications, timing on track as of 2/18/18



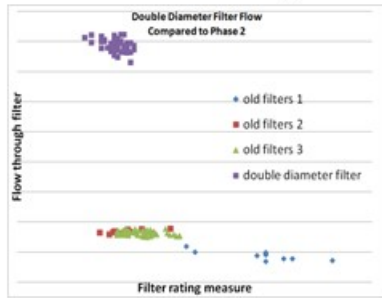
■ Completed ■ In Progress ■ Remaining

Addressing Filter Issue Through Design Enhancements, Quality Systems and Assembly. Demonstrating in a Performance Study

- ✓ Filter diameter doubled, surface cross section increased by 4x

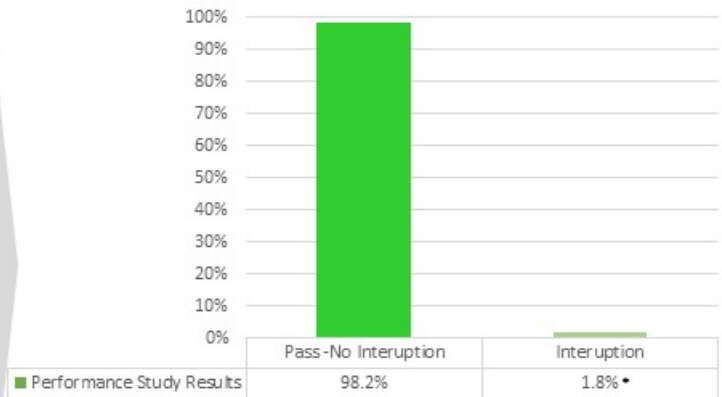


- ✓ New material quality specifications and tests for flow through filter



- ✓ Modified design and assembly to reduce restrictions
- ✓ Transferring to a device manufacturer with strong quality systems and track record

Performance Study Results (as of 2/22/18)



Performance Study executed at 50 minute dose has a 98.2% pass rate with 84% (57 of planned 68) tests completed

*This one interruption was due to an isolated and correctable software issue

Generate the strongest possible position and transition to phase 3
Execute a Bridge Study to transition the new, Next Gen ADS device in order to meet the following objectives:

1. Demonstrate adequate, consistent performance for the new Next Gen device
 - Beyond Device Design Verification and bench performance study, Windtree learns from actual “in-clinic” experience to ensure no issues
2. Sites gain experience with procedure and new device prior to FPI phase 3
3. Generate additional supportive 50 min dose data (and more intensive dosing)
 - Fourth data set at high dose is expected to provide data on safety of more intensive dosing and to augment phase 2b data that was impacted by removal of treatment interruptions in the pre-planned MITT

AEROSURF® Bridge Study

- Blinded study; nCPAP alone as control versus adding AEROSURF® treatment
- GA range: 26-32 weeks
- N=70 planned (35 per group) in a design similar to phase 2b
- ~20-25 select sites
 - represent the best previous study sites for enrollment and execution in phase 2 (predominately U.S. sites)
- Timing: 3 quarters in study duration starting in Q3 2018
- Dose: 50 min. with up to 4 repeat doses (determined by infant FIO₂); minimum 20 minute wait between doses
 - Ph2b was 50 min. high dose, 2 repeats possible with a 2 hour wait between doses
- FiO₂ ≥ 25% to qualify, >21% for repeat dosing to allow infants to receive more treatments
- Key Measures:
 - CPAP failure
 - Next Gen ADS Device performance
 - Safety and tolerability
- Bridge Study not powered for significance, however we would like to show magnitude of effect >20%

Program Evolution and Changes Intended to Increase the Probability of Technical Success and Continue to Strengthened Data

- We have reproduced positive results in our Phase 2a and Phase 2b and have learning's to apply in trial design and execution
- Utilize the Next Gen ADS which is designed to mitigate the risk of filter related treatment interruptions
- Next Gen device features may support clinical outcomes:
 - Faster set up may decrease time to treatment (time is believed to be meaningful)
 - Easier to use (human factor associated with the device experience may affect clinical decision making and resulting data)
- Given safety profile we are continually seeking to optimize dosing:
 - Only studying high dose
 - Decreasing interval from 2 hours to 20 min. between doses with additional repeat dosing possibilities
- FiO₂ at 25% for inclusion, >21% for repeat allows more infants to receive clinically needed repeat dosing
- Executing in our best sites

Other Potential Development Activities

- Lyophilized Lucinactant (LS)
- Preclinical Activities

Lyophilized Lucinactant

A Second Asset Can Expand the Opportunity

Lyophilized Lucinactant LS



Characteristics

- Lyophilized dosage form of our KL4 surfactant drug product that was previously approved by the FDA as a liquid dosage form
- Currently used in AEROSURF® development program
- Improvements and benefits (besides being fully synthetic vs. animal-derived) include lower viscosity, stability expected at 3 years+, cold chain but no need for warming, potential for room temperature in clinic stocking

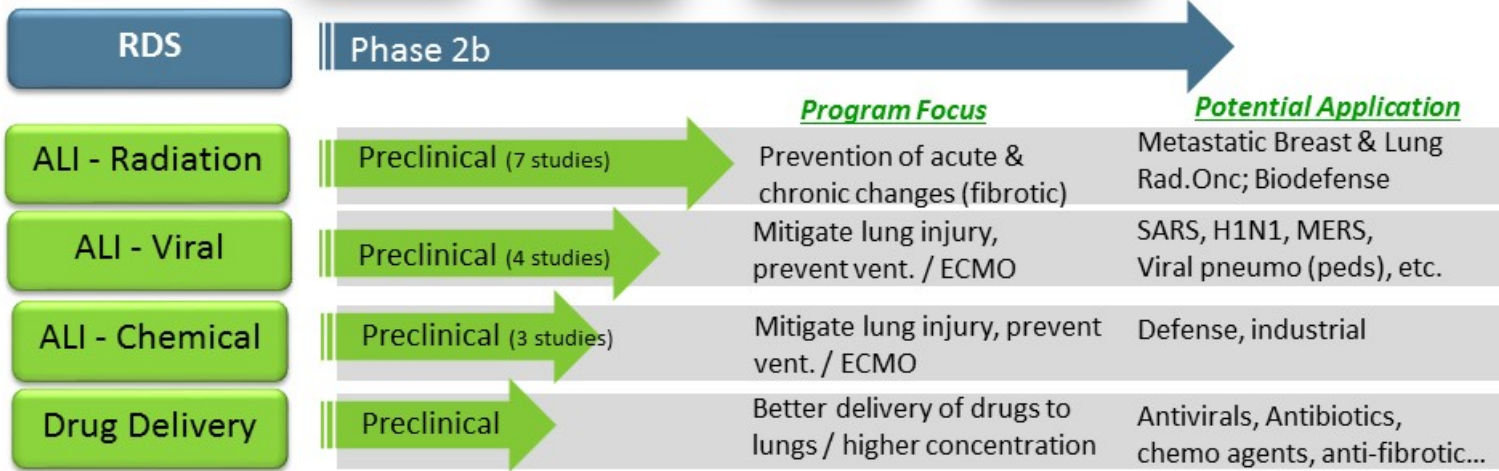
Development Plan

- Plan for Phase 3 in RDS (liquid bolus application)
 - Obtain regulatory advice on trial design and approval requirements in 1H 2018
- Potential to develop for other future indications where aerosolized KL4 is not indicated (i.e., where patient are intubated for their condition, etc.)

Value to Windtree

- Strengthen RDS position as a provider for all surfactant needs and compete in 100% of market and clinical pathways (noninvasive and invasive)
- May enhance Windtree's RDS offering with a second product based on the same drug being studied in AEROSURF and previously approved as SURFAXIN®
- LS for bolus application gives Windtree a platform for non-aerosolized applications

Leverage our Innovative Technology to Advance Acute Pulmonary Disease Care and Outcomes Beyond RDS



Planned Assessment & Prioritization in 2018



Platform Exclusivities

Broad Multi-Faceted Exclusivity Portfolio

Regulatory

- **Orphan Drug Designation** in RDS for the U.S. and EU
- **AEROSURF® FDA Fast-Track Designation**



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SCIENCE MEDICINES HEALTH

Patents

- Lyophilized KL4 Surfactant Portfolio - to 2033
- Aerosol Delivery System Portfolio - through 2031+

Trade Secrets/Know-How

- Methods of Manufacture
- Non-USP Analytical Processes



Potential Challenges to Generic Entry

- Conventional bioequivalence studies are not relevant as Surfactants are Non-Receptor Based

Q4 2017 Financial Restructuring Initiative

Rationale

- Our KL4 platform assets represent a significant opportunity, however significant additional investment is required to advance and realize the full potential of these assets
- Securing the required additional capital had been a challenge due in significant part to the financial overhang of \$25MM of secured debt, with the first installment of \$12.5MM due in February 2018
- Improving the Company's balance sheet and capital structure has been a critical success factor to better enable the prospects for long-term financial stability



Strategy

Execute a broad financial restructuring initiative via strategic transaction

1. Rapidly secure the cash needed to fund operations with a focus on maintaining our assets and advancing the AEROSURF® program
2. Remove the financial overhang caused by long-term debt; address the barrier to further funding by retiring the debt
3. Lower ongoing, non-program related cash burn
4. Better position Windtree for growth and longer term stability

Elements of the Q4 2017 Transactions

1 Lee's Share Purchase

- Lee's purchased \$10 million of common stock
- Lee's owns approximately 73% of currently outstanding Windtree shares of common stock

Deerfield Debt Retirement

- 2 • Deerfield agreed to restructure and retire its \$25 million secured loan to facilitate the Lee's share purchase. In exchange for the retirement of debt, Deerfield received:
 - \$2.5 million of share purchase proceeds
 - Windtree common stock representing 2% ownership on a fully-diluted basis
 - up to \$15 million in future AEROSURF regulatory and commercial milestones beginning with filing for U.S. marketing approval

Battelle Collaboration Development Payables

- 3 • Battelle (our medical device partner) agreed to restructure payment terms of existing payables to minimize cash payments

Results and Benefits of the Restructuring Initiative

- ✓ Significantly improved capital structure by removing-the financial overhang of long-term debt
- ✓ Lowered the ongoing, non-program related cash burn rate through a combination of a 40% headcount reduction and other cost cutting measures
- ✓ Better positioned to access new capital – including potentially with China / Hong Kong capital markets and investors
- ✓ Windtree becomes part of a well respected and resourced, global organization that is committed to building the KL4 platform and Windtree; expands our revenue potential and opportunities to diversify and build a broader portfolio

Stated Rationale and Intent of Lee's

1. High belief in the assets and program

- Dr Li, CEO of Lee's Pharm, has followed Windtree for some time and is compelled by the synthetic surfactant platform (both aerosolized and non-aerosolized in RDS as well as other potential indications) and the significant opportunity it represents in China and globally
- Attracted to the balanced investment / balanced risk approach of having three separate assets including an approved product, a new, better formulation in LS and the potentially game-changing AEROSURF program

2. Desire for globalization from a major interest in a U.S. public company to build and access to new capital markets. Specifically, Windtree is expected to be an attractive way to achieve this because:

- They see a significant opportunity to gain this position at good value, clean up the capital structure and make healthy, and have a management team and assets they know and believe in

3. Moving forward intent – Execute programs, potential to diversify with new assets and build a valuable business

2017 - A Productive Year for Windtree



2018 Objectives

1



Complete Device Development delivering an **extremely consistent, high performing Phase 3 / “go to market” drug delivery platform**

2



Solid execution in the clinic with the **Bridge Study**

3



AEROSURF and Lyo Lucinactant LS
Global Regulatory Clarity and employed in development

4



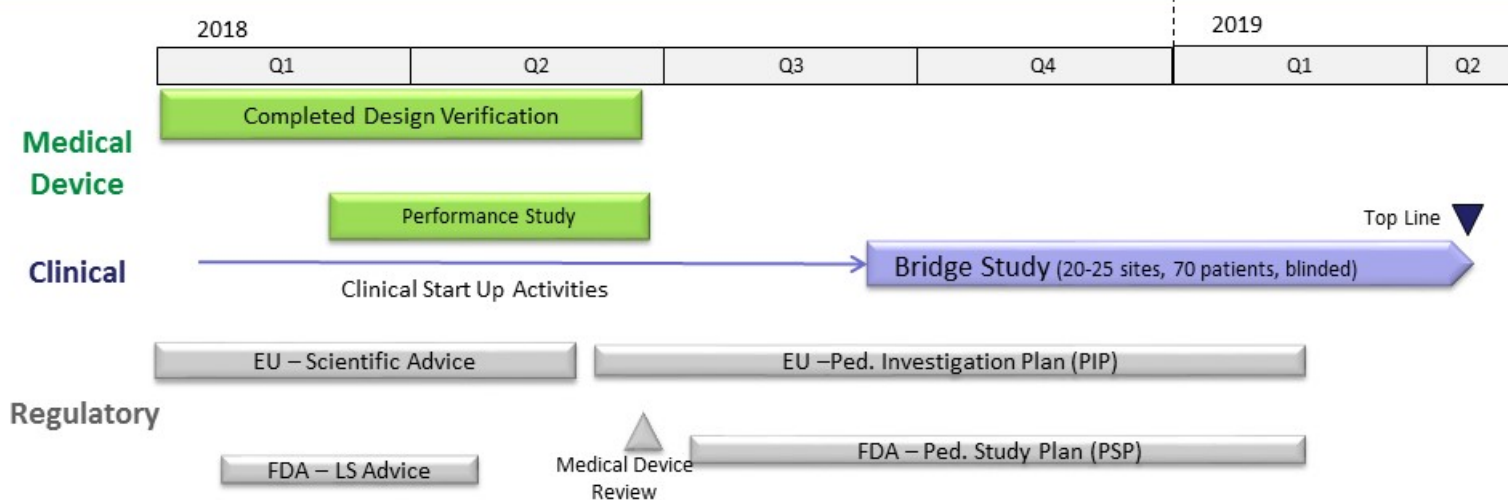
Successful funding supporting a **financially healthy organization**

5



Investment / Portfolio **Diversification** by potentially accessing assets within the Lee's Pharm organization and Lyo Lucinactant LS

AEROSURF® Development and Deliverables Overview



- 1H 2018**
- ✓ Next Gen Device DV
 - ✓ Device Performance Study - results
 - ✓ Bridge Study start-up
 - ✓ Regulatory Milestones:
 - EMA Scientific Advice
 - FDA Device
 - FDA Lyo Lucinactant LS
 - ✓ Address existing obligations

- 2H 2018 through Mid-2019**
- ✓ Bridge Study top-line data
 - ✓ FDA End of Phase 2 Meeting
 - ✓ EU PIP
 - ✓ FDA PSP
 - ✓ Ph 3 start-up



Note: The above schematic represents Windtree's current business planning, execution and intent as of 2/18/18. Start and completion timing for many activities are dependent upon the timely completion of other tasks (i.e. study start dependent on device availability) and sufficient available funds.



- **Potentially transformative therapy** addressing both the unmet efficacy and safety needs in the important, acute neonatology market
- Multiple **phase 2 clinical trials reproducing efficacy** while continuing to build **safety and tolerability data** base
- **Developing positive health economic position** as well as opportunity to **expand the use of surfactants** due to easier, less specialized administration
- **Broad IP** with potential to **build a pipeline** of KL4 surfactant therapies to address a variety of respiratory diseases
- **Fast Track and Orphan designations**
- **Part of a highly capable, diverse, global pharmaceutical company committed to the build and growth of Windtree**

Windtree Therapeutics



“Striving to deliver Hope for a Lifetime!”