sequanamedical

Investor presentation – April 2022

Euronext: SEQUA.BR

Innovators in the treatment of diuretic-resistant fluid overload

liver disease | malignant ascites | heart failure

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Regulatory disclaimer:

- The **alfa**pump® system has not yet received regulatory approval in the United States and Canada. Any statement in this presentation about safety and efficacy of the **alfa**pump® system does not apply to the United States and Canada. In the United States and Canada, the **alfa**pump® system is currently under clinical investigation (POSEIDON Study) and is being studied in adult patients with refractory or recurrent ascites due to cirrhosis. For more information regarding the POSEIDON clinical study visit www.poseidonstudy.com.
- DSR® therapy is still under development and it should be noted that any statements regarding safety and efficacy arise from ongoing pre-clinical and clinical investigations which have yet to be completed. DSR® therapy is currently not approved for clinical research in the United States or Canada. There is no link between DSR® therapy and ongoing investigations with the **alfa**pump® system in Europe, the United States or Canada.

COVID-19 disclaimer:

- Sequana Medical is closely following the evolution of the COVID-19 global health crisis and is in constant dialogue with its partners to assess the impact and adapt operations accordingly.
- Sequana Medical has put in place mitigation plans to minimise delays. The impact of increased demands on the healthcare systems, limitations on non-essential hospital visits and procedures, social-distancing and travel restrictions may result in further delays to execution of clinical studies and impact sales.
- Sequana Medical will continue to update the market as needed and whenever possible.

Note:

- **alfa**pump® is a registered trademark. DSR® and **alfa**pump DSR® are registered trademarks in the Benelux, China, the EU, United Kingdom, and Hong Kong.

Uniquely positioned in two large markets

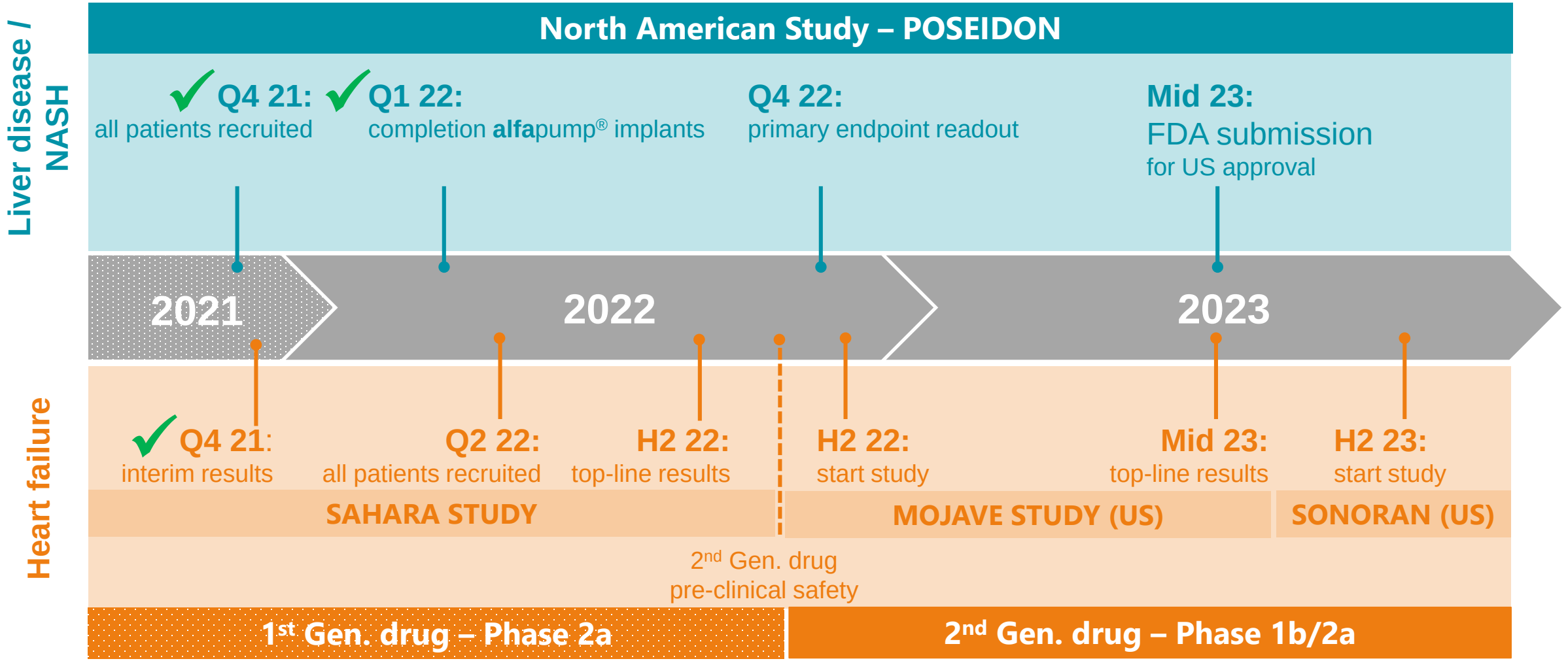
- **Proprietary technologies treating diuretic-resistant fluid overload**
  - Key clinical problem in liver disease, heart failure, renal failure and cancer
  - Diuretic-resistance is common – alternatives have significant disadvantages
- **Strong granted IP portfolio**

- **alfapump® in liver disease – over €3 Bn / year** (1)
  - NASH is changing liver cirrhosis market and driving growth
  - Approved in EU / FDA breakthrough designation in US
  - North American pivotal study de-risked / primary endpoint Q4 ‘22
  - Direct commercialisation in US

- **DSR® in heart failure – over €5 Bn / year** (2)
  - Congestion is a key driver of heart failure and major clinical challenge
  - 1st Gen. drug – clinical proof-of-concept & encouraging Ph.2a data
  - Low-risk proprietary 2nd Gen. drug – on track for Q4 US clinical study
  - Partnering after US efficacy study

Source 1: Management estimate in US within 10-20 years, that is inclusive of estimated growth in prevalence of NASH for the US based on GlobalData Epidemiology Forecast to 2026
Source 2: Management estimate in US & EU by 2026 based on GlobalData Heart Failure Epidemiology Forecast to 2026; Costanzo et al. (2007). Kiglore et al (2017)

Strong outlook for value drivers



Note: Presented timelines are subject to further developments related to the COVID-19 pandemic

alfapump®

Proven step change in the treatment of liver refractory ascites

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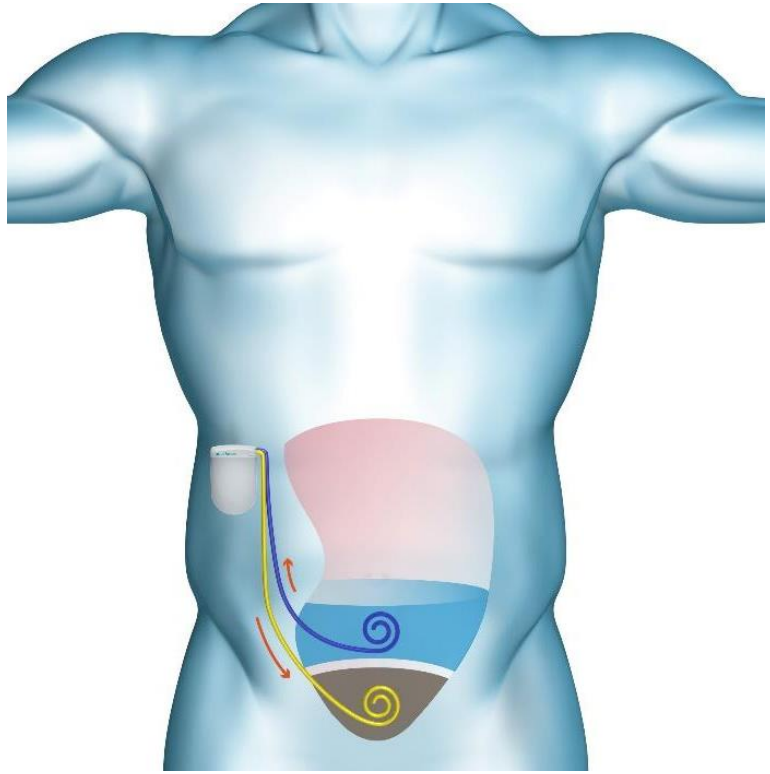
alfapump®

Eliminating fluid from the peritoneal cavity – working in partnership with the bladder

- Fully implanted
- Automatic operation
- Wireless battery charging
- Settings wirelessly adjusted
- Remote data monitoring



- Easy implantation
- Long-term implantation & catheter patency
- Moves up to 4 litres / day
- Virtually non-clogging
- No significant heating during charging and operation

Proven capabilities – over 900 systems implanted
Strong IP barriers through extensive patent portfolio & know-how

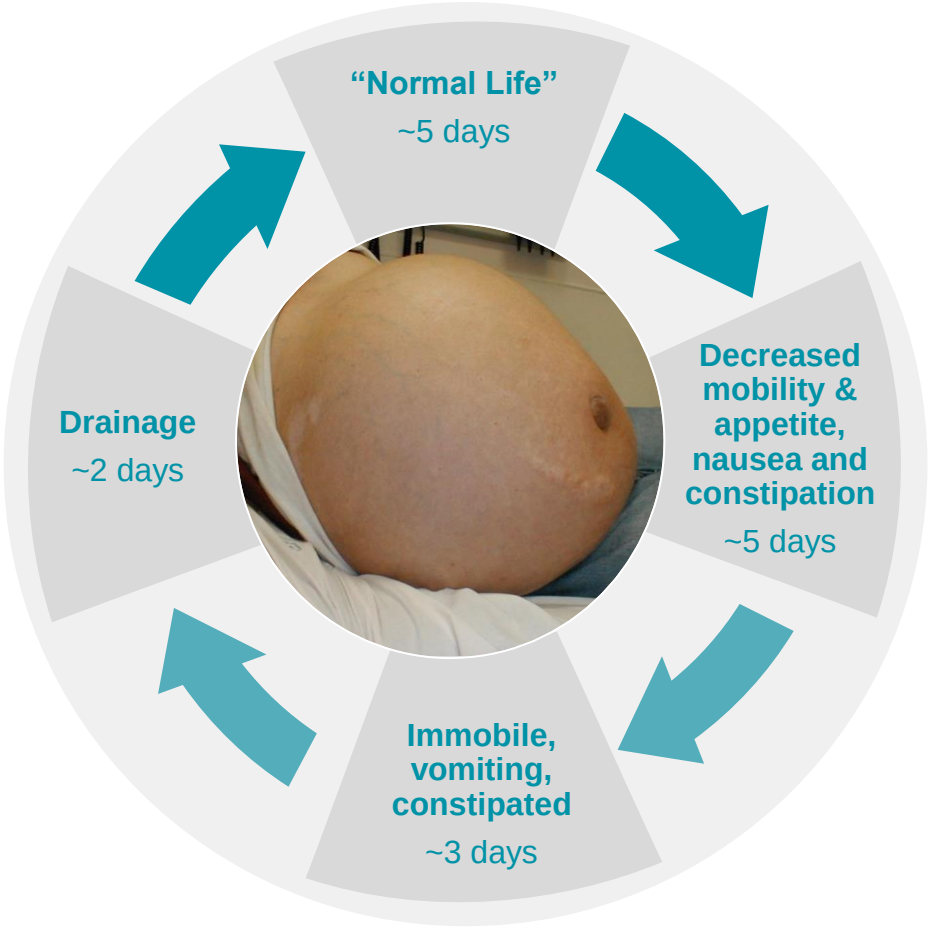
Refractory ascites – key complication of liver cirrhosis

Fatty liver disease / NASH is driving dramatic growth and change in attitudes to liver cirrhosis patients

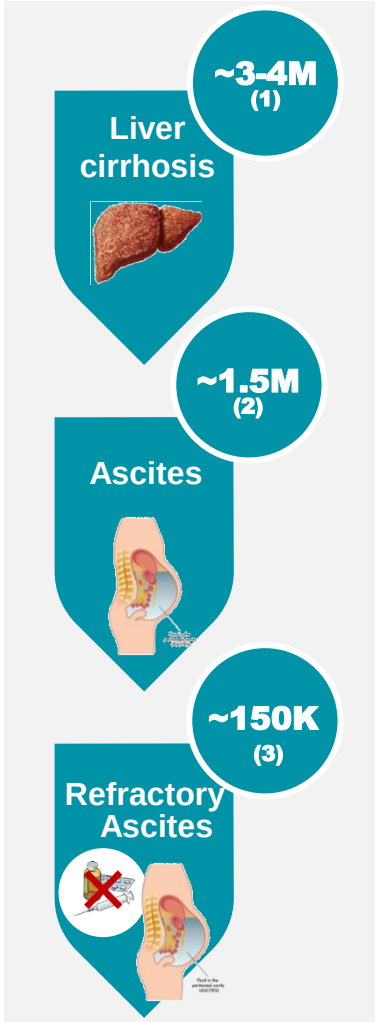
Viral infections (Hepatitis B & C)

Alcoholic Liver Disease

Non-Alcoholic Steatohepatitis (NASH)



Typical patient life[4]



Note : Prevalence of NASH in US is expected to increase by 63% between 2015-2030; Estes et al., 2018

Source 1 Management estimate in US based on Estes et al; GlobalData Nash Epidemiology Forecast to 2026; Noureddin et al., 2013
Source 2: Runyon 2009: approximately 50% of cirrhotic patients develop ascites within 10 years of diagnosis of cirrhosis
Source 3: Ginès et al., NEJM 2004: refractory ascites occurs in 5-10% patients with ascites
Source 4: Presentation of Dr. Rajiv Jalan at EASL in 2018, Large Volume Paracentesis (LVP) treatment cycle for refractory ascites

NASH transforming the face of liver cirrhosis

In US, liver cirrhosis is transitioning to a mainstream disease requiring modern treatment options

alfapump® market potential	**> €3 Bn / year**
Underlying disease	**NASH**
Patient characteristic	**“Mainstream”**

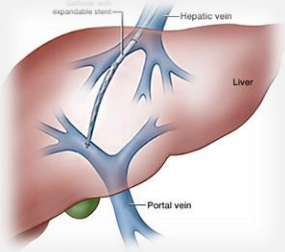
Notes: forecast US Liver market: Management estimate that is inclusive of estimated growth in prevalence of NASH for the US based on GlobalData Epidemiology Forecast to 2026.

Limitations of existing therapies

Drainage ("Large Volume Paracentesis / LVP")

Painful, Poor Quality of Life, Short Term Benefit

Transjugular Intrahepatic Portosystemic Shunt (TIPS)



Complications, Contraindications

Permanent Catheter System

External Catheter, Risk for Infections / Blockage

Liver transplantation

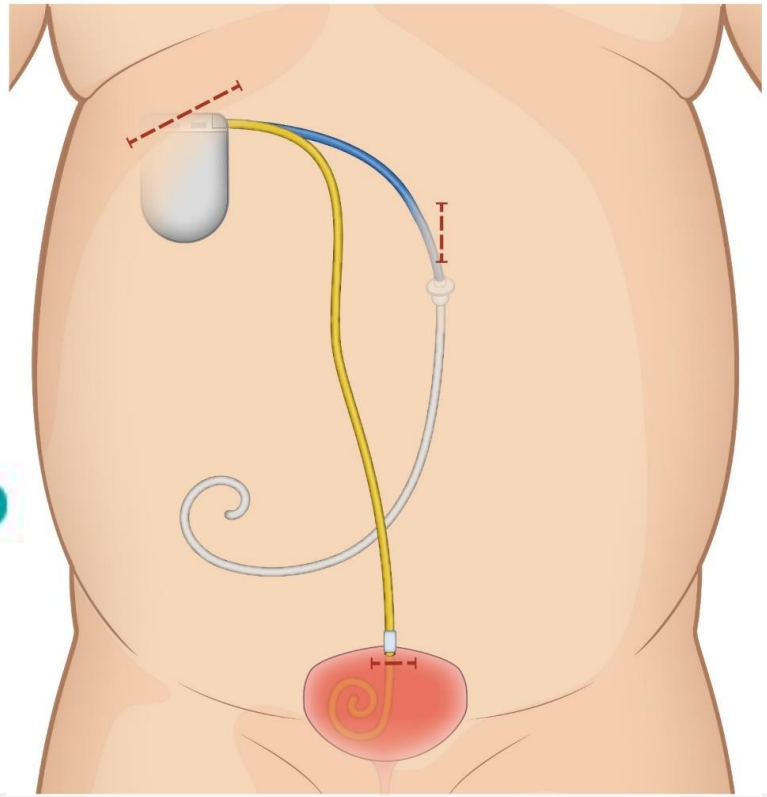
High Cost, Limited Availability

alfapump®

alfapump® strong clinical and economic rationale

Over 900 implants and hundreds of years of patient experience

DirectLink Technology



- Reduced burden of disease
- Improved patient QoL
- Cost savings for hospitals and payers

Estimated treatment cost / patient*:

LVP: ~$54K		**alfapump®: ~$35K**
~$1.8K / LVP(1)		~$25K / **alfa**pump
2 LVP / month		~$10K / implantation
15 months		

** Management estimate of US treatment costs, assuming no complications*

QoL: Quality of Life; LVP: Large Volume Paracentesis

CE

EASL The Home of Hepatology

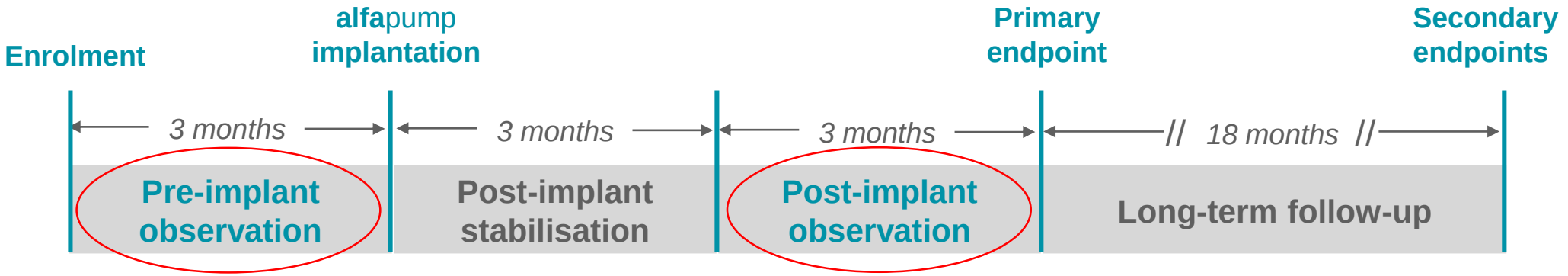
NICE National Institute for Health and Care Excellence

1913 DGVS Deutsche Gesellschaft für Gastroenterologie, Verdauungs- und Stoffwechselkrankheiten

FDA **Breakthrough Device** Designation

North American Pivotal Study (POSEIDON) underway

Pivotal Cohort of 40 implanted patients; Roll-In ("training") cohort of 29 implanted patients



POSEIDON Study Endpoints	
Primary efficacy:	1) 50% reduction in average monthly frequency of Therapeutic Paracentesis ("TP") post-implant vs. pre-implant
	2) 50% of patients achieve a 50% reduction in the requirement for TP post-implant vs. pre-implant
Primary safety:	Rate of **alfa**pump related re-interventions adjudicated by the Clinical Events Committee (CEC)
Secondary:	QoL (SF36, Ascites-Q), nutritional status, health economics, safety (device and/or procedure-related AEs), survival

***QoL**: Quality of Life; **AE:** Adverse Event*

Interim POSEIDON: Positive for primary endpoints

Data from first 26 Roll-In patients clinically derisks the study

EFFICACY

- ✓ Over 90% reduction in mean Therapeutic Paracentesis (TP) frequency (primary endpoint >50% reduction)
- ✓ 100% patients with > 50% reduction in mean TP frequency per month (primary endpoint >50% of patients)

SAFETY

- ✓ In line with expectations – 3 composite primary safety events

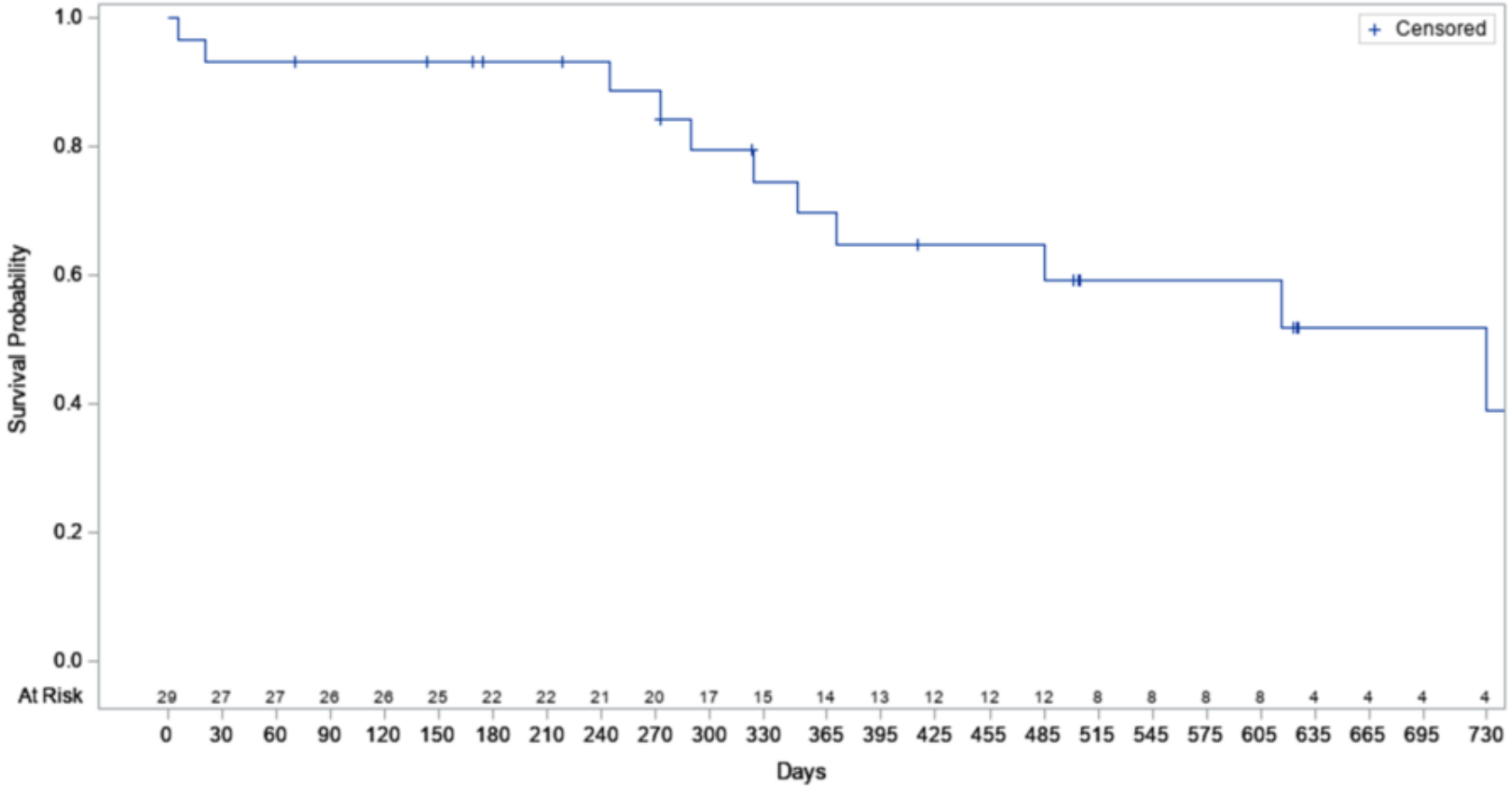
QUALITY OF LIFE

- ✓ Clinically important improvement maintained for up to 12 months post-implantation

Note: Pre- and post-implant periods for this analysis of the Roll-In Cohort differ from those that will be used for the Pivotal Cohort analysis

Interim POSEIDON: 70% survival at 12 months*

Compares favourably to published literature



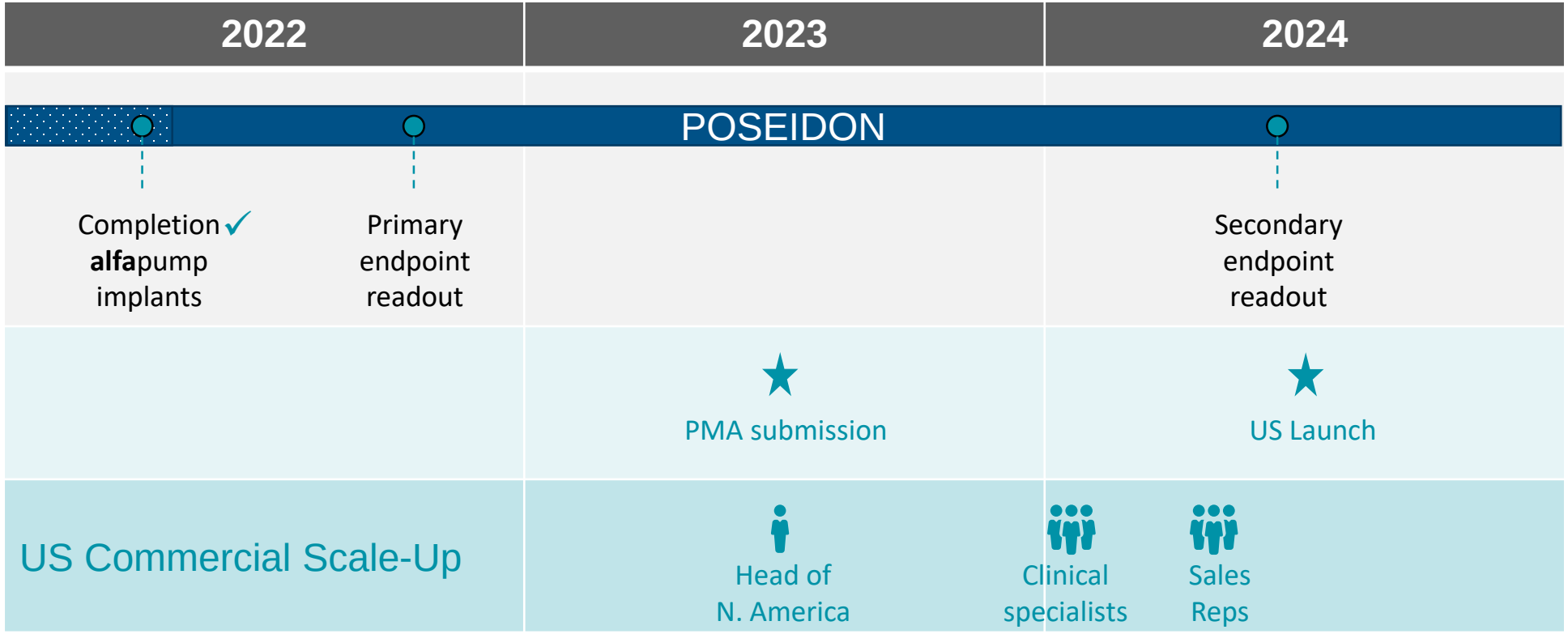
Published literature cited in AASLD practice guidelines:

survival rate for refractory ascites patients of only 50% at 12 months[1]

**Preliminary survival rate analysis of Roll-In Cohort (25 March 2022)*

Source 1: Biggins et al., Hepatology, Vol. 74, No. 2, 2021, AASLD Practice Guidance; Moreau R et al., Liver International 2004: 24: 457-464

North American alfapump® approval on track for 2024



*NTAP for breakthrough devices de-risks reimbursement in key Medicare population**

*On the basis of existing ICD-10 codes issued for the **alfa**pump, the likely DRG coding will be 423, 424 and 425 "OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES"*

***PMA:** Pre-Market Approval; **NTAP:** New Technology Add-On Payment*

US – Go direct to 140 liver transplant centres

Highly efficient approach to target doctors and patients – driven by treatment guidelines

140

~50 initially

- 35 sales reps
- 10 clinical specialists
- 5 corporate

DSR®

Breakthrough approach to **heart failure**

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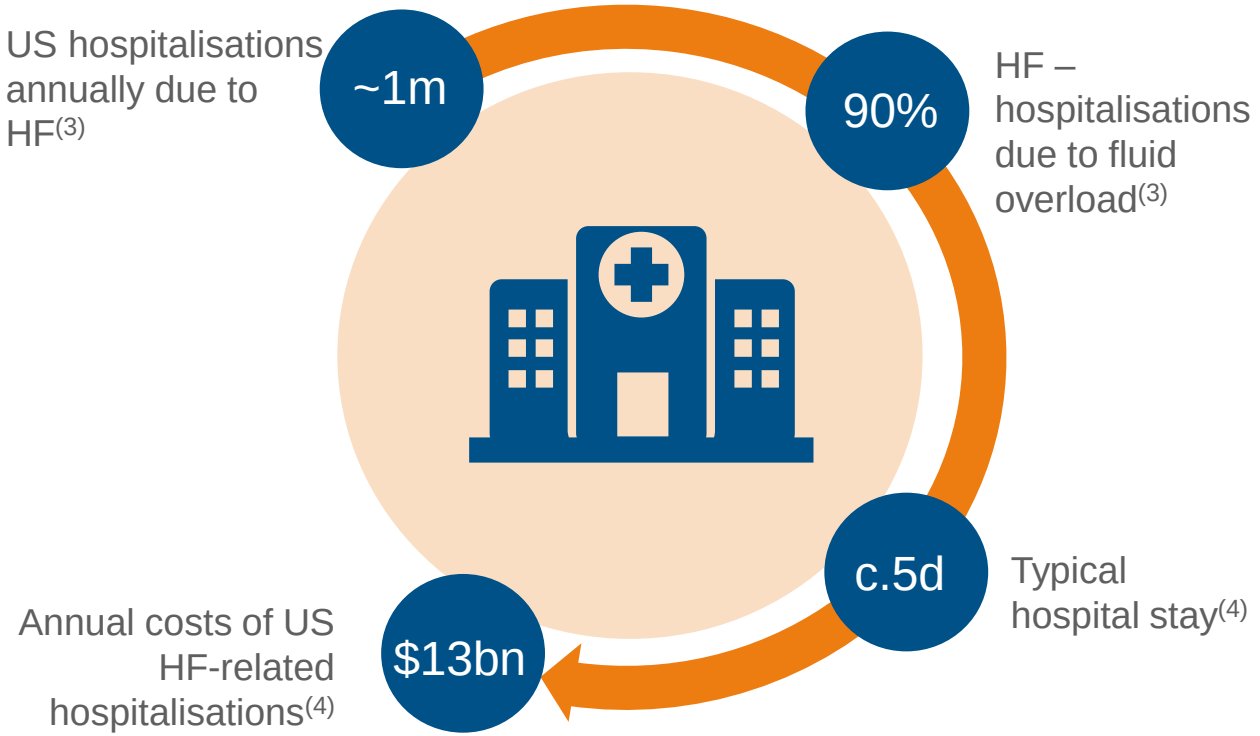
Diuretic-resistant congestion in heart failure

Removal of congestion without damaging renal function is a key therapeutic target and clinical challenge



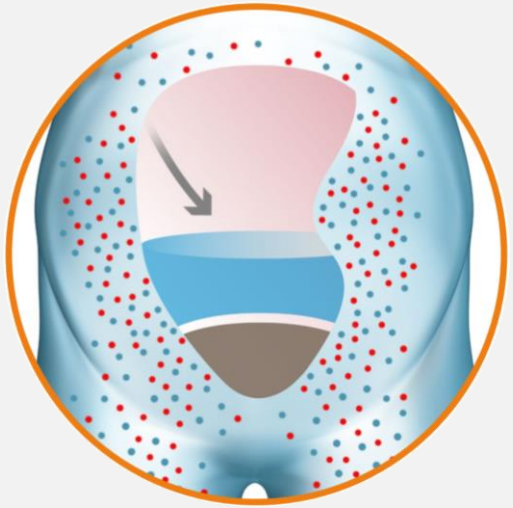
- *40% of heart failure patients on IV loop diuretics have a poor response(1)*
- *24% re-admission rate at 30 days(2)*

Source 1: Testani, Circ Heart Failure, 2014 & 2016; Source 2: Ross et al. (2010); Source 3: Costanzo et al., J. Am. Coll., 2007; Source 4: Kilgore et al. (2017)

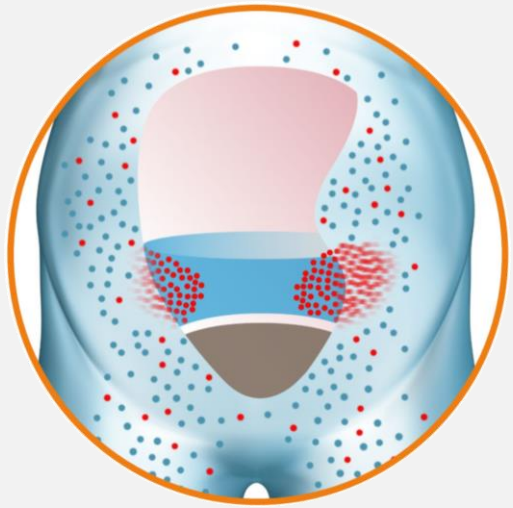
Direct Sodium Removal (DSR®) platform

Eliminating fluid spread across the body – working in partnership with the kidneys

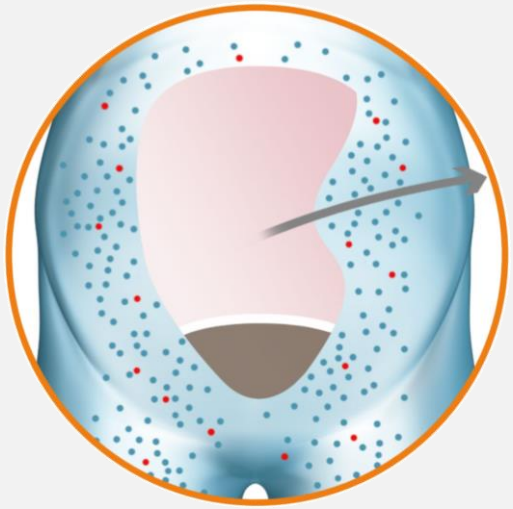
1 Sodium-free DSR infusate administered to peritoneal cavity



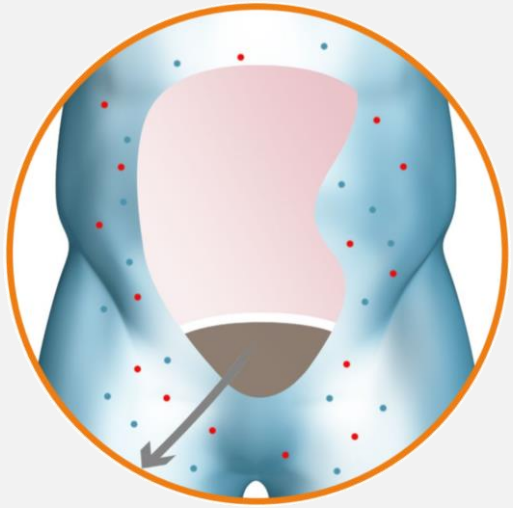
2 Sodium diffuses from body into DSR infusate



3 DSR infusate + extracted sodium removed from the body



4 Body eliminates free water to restore sodium balance, reducing the fluid overload

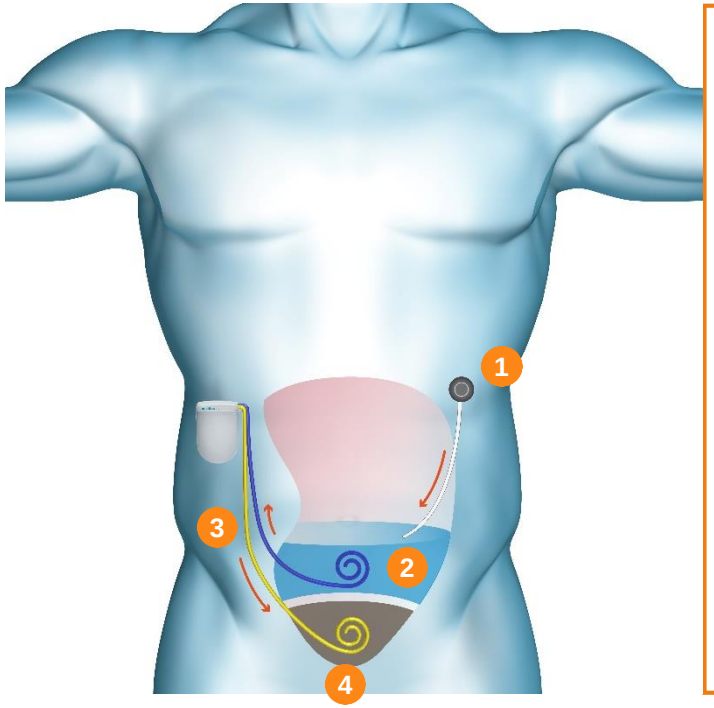


- water
- sodium

Fundamental patents to reduce fluid overload in heart failure patients granted in the US and Europe

alfapump DSR® leveraging proven alfapump® platform

Fully implanted system for long-term DSR® therapy – keeping patients out of the hospital



1. Sodium-free DSR infusate administered to peritoneal cavity via implanted subcutaneous port
2. Sodium diffuses into DSR infusate
3. **alfa**pump pumps sodium-rich DSR infusate into the bladder
4. Body eliminates excess fluid through osmotic ultrafiltration and urination

DSR® – Encouraging Phase 2a heart failure data

Clinical Proof-of-Concept demonstrating breakthrough potential in heart failure therapy

RED DESERT – Completed	SAHARA DESERT – Ongoing (Interim data)
8 Euvolemic heart failure patients	**6 Decompensated heart failure patients**
✓ **Safe & effective management of sodium & water**	✓ **Safe, effective & rapid decongestion, & restore euvolemia**
✓ **Clear improvement in cardio-renal status**	
• 30% decrease in NT-proBNP* • 22% increase in eGFR*	• >30% decrease in NT-proBNP* • Stable eGFR*
✓ **Dramatic and durable improvement in diuretic response**	
• 40-96% reduction 9-19 months after study completion	• >90% reduction 3 months* after intensive DSR therapy

** Mean value*

***NT-proBNP**: N-terminal-pro hormone B-type Natriuretic Peptide (analysed in local lab); **eGFR**: estimated glomerular filtration rate*

Moving to proprietary 2nd Generation Infusate

Red Desert PoC ✓
- **alfa**pump DSR
- 8 euvolemic HF patients

Sahara Desert Ph. 2a ongoing
- **alfa**pump DSR
- Up to 20 decompensated HF patients

2nd Gen. Infusate Development
- Animal GLP and CMC data in H2 '22

Mojave Desert Ph. 1b/2a (US)
- Short-Term DSR (no **alfa**pump)
- Decompensated HF patients

Sonoran Desert Ph. 2a (US)
- **alfa**pump DSR
- Decompensated HF patients

1st Generation Infusate

- ✓ Sodium-free D10% (off-the-shelf)
- ✓ Clinical Proof-of-Concept
- ✓ Rapid clinical path

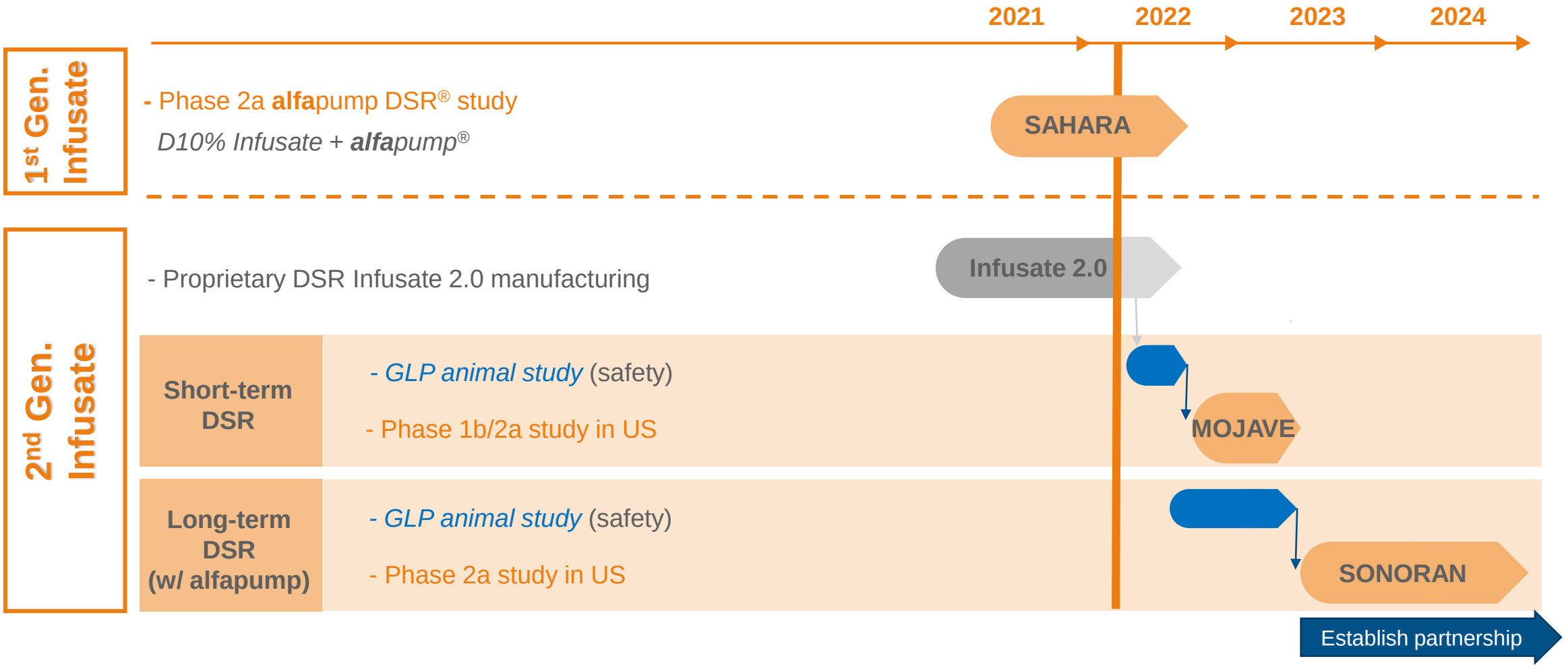
2nd Generation Infusate

- ✓ Sodium-free dextrose / icodextrin (proprietary)
- ✓ Improved therapeutic profile
- ✓ Favorable safety profile
- ✓ IP protection drives recurring revenue from high gross margin consumable

PoC: *Proof-of-Concept;* ***HF:*** *Heart Failure;* ***GLP:*** *Good Laboratory Practices;* ***CMC:*** *Chemistry, Manufacturing & Controls*

DSR® – plan to partner after US efficacy study

Step-by-step approach to introduction of breakthrough heart failure therapy



Timelines subject to further developments related to the ongoing COVID-19 pandemic
Description and timing of these studies are subject to change and/or feedback from applicable regulatory authorities

Outlook

Strong **near term value drivers**

with clear **long term potential**

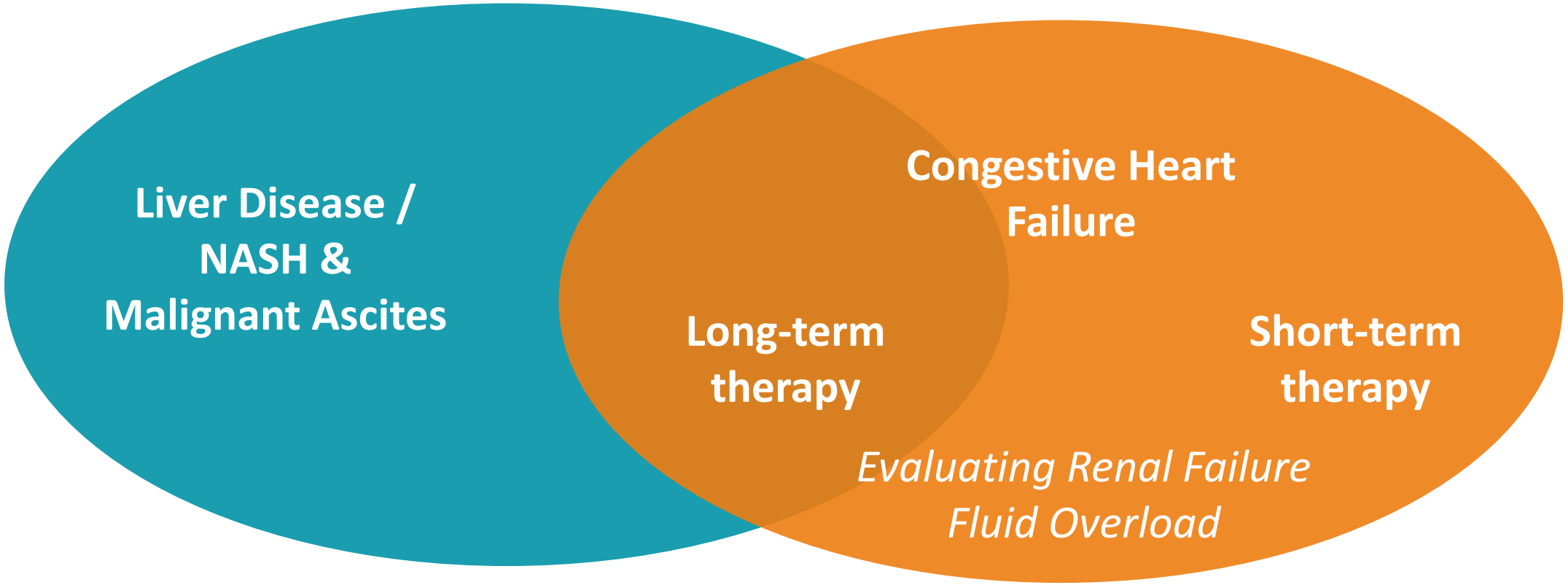
Building on our two proprietary platforms

Complementary approaches to diuretic-resistant fluid overload

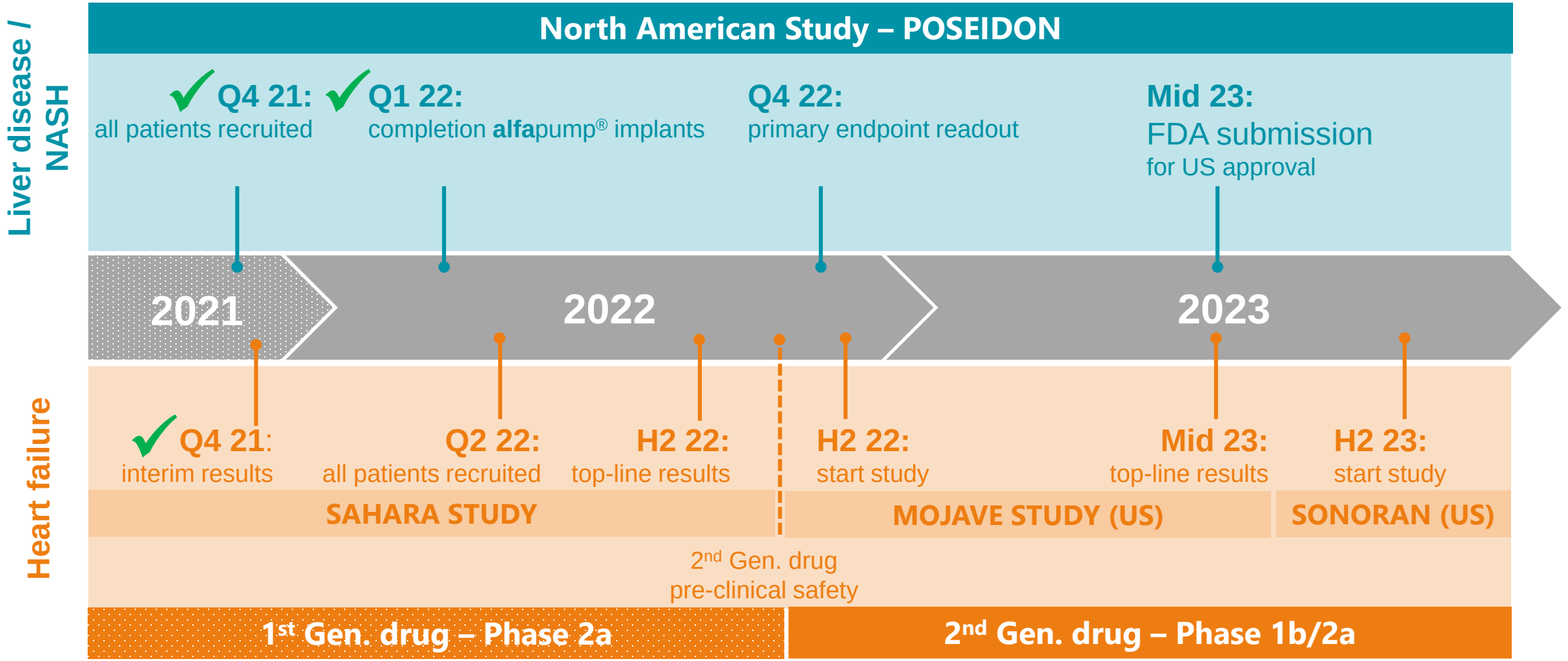
alfapump®

alfapump DSR®

DSR®



Strong outlook for value drivers



Note: Presented timelines are subject to further developments related to the COVID-19 pandemic

Strongly positioned for growth in both our markets

- **alfapump® in liver disease / NASH – over €3 Bn / year** (1)
  - NASH is changing liver cirrhosis market and driving growth
  - FDA breakthrough device status / Strong IP portfolio
  - North American pivotal study de-risked – Fully implanted / Positive interim data
  - North American approval on track for 2024 / Go direct to 140 liver transplant centres

- **DSR® in heart failure – over €5 Bn / year** (2)
  - Clearing congestion while preserving renal function is a key objective of heart failure therapy
  - Clinical proof-of-concept with 1st Gen. drug – Encouraging phase 2a data
  - Development of proprietary 2nd Gen. drug – Strong IP / Driver of high margin recurring revenue
  - Establish partnership after US efficacy study mid-2023

Source 1: Management estimate in US within 10-20 years, that is inclusive of estimated growth in prevalence of NASH for the US based on GlobalData Epidemiology Forecast to 2026
Source 2: Management estimate in US & EU by 2026 based on GlobalData Heart Failure Epidemiology Forecast to 2026; Costanzo et al. (2007). Kiglore et al (2017)

Contact info

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www.sequanamedical.com

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Back-up

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Sequana Medical NV

- Founded in 2006
- Gent, Belgium (HQ): corporate, clinical, commercial
- Zurich, Switzerland: manufacturing, engineering, QA/RA
- ~60 employees
- Euronext Brussels: SEQUA

Strong organisation

Highly experienced leadership team supported by committed and well-reputed shareholders

Executive team:

Ian Crosbie
Chief Executive Officer

Kirsten Van Bockstaele
Chief Financial Officer

Oliver Gödje
Chief Medical Officer

Dragomir Lakic
VP Manufacturing

Gijs Klarenbeek
Senior Medical Advisor

Martijn Blom
Chief Commercial Officer

Timur Resch
Global VP QM/QA/RA

Andreas Wirth
VP Engineering

Board of Directors:

Pierre Chauvineau
Board Chairman

Ian Crosbie
Chief Executive Officer

Wim Ottevaere
Director

Jackie Fielding
Director

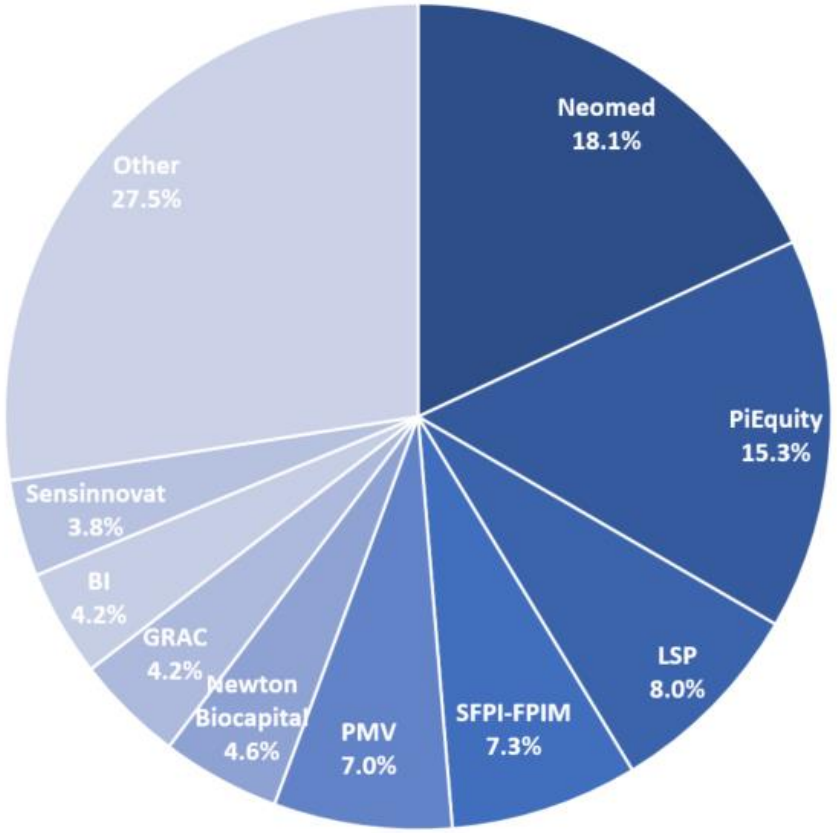
Rudy Dekeyser
Director

Erik Amble
Director

Shareholders base and financial overview

Ticker: SEQUA – Euronext Brussels

- Outstanding shares: 23.7M
- Outstanding share options & warrants: 2.7M



- Analysts:
  - KBC Securities – Jeroen Van den Bossche
  - Kempen – Christophe Beghin
  - Kepler Cheuvreux – Daan Vandenberk
  - H.C. Wainwright – Yi Chen, Raghuram Selvaraju
  - Degroof Petercam – Laura Roba, Kris Kippers
- Cash (31 December 2021): €9.6M
- Equity placement (March 2022): €28.4M
- Cash runway into Q2 2023

POSEIDON – study cohorts

Patients with recurrent or refractory ascites due to liver cirrhosis in up to 20 centres across US and Canada

Two study cohorts with the same inclusion / exclusion criteria

1 Pivotal Cohort

- Up to 50 patients implanted with the **alfa**pump®
- For primary and secondary endpoint analysis

2 Roll-In Cohort ➡ enables us to report interim data

- Up to 30 patients implanted with the **alfa**pump
- To teach clinicians and medical teams at new centres how to use the **alfa**pump

Recurrent or refractory ascites – patient profile

26 patients from the Roll-In Cohort in the POSEIDON study

Age (mean)	63 y
MELD score (mean ± SD)	10.3 ± 3.9
Cirrhosis etiology	
- Alcohol	- 50.0%
- NASH	- 23.1%
- NASH / Alcohol	- 3.8%
- Alcohol / Hepatitis	- 11.5%
- Alcohol / Primary Sclerosing Cholangitis	- 3.8%
- Hepatitis C	- 3.8%
- Budd Chiari Syndrome	- 3.8%
TP per month prior to study (mean ± SD)	3.8 ± 1.4

N. American patients are treated early in their disease

NASH is becoming a major driver of ascites market

Higher number of TP compared to Europe

MELD: *Model for End-stage Liver Disease;* ***SD:*** *Standard Deviation;* ***NASH:*** *Non-Alcoholic Steatohepatitis;* ***TP:*** *Therapeutic Paracentesis*

Roll-In Cohort: Substantial and durable reduction in Therapeutic Paracentesis (TP)

Mean values	Primary efficacy endpoint Pivotal Cohort	Interim data Roll-In Cohort (N = 26)
% reduction in monthly frequency of TP	> 50% (1)	> 90% (2)
% patients with >50% reduction in TP	> 50% (1)	100% (2)

(1) Monthly frequency of TP during 3-month post-implant observation period (month 4 to 6) vs 3-month pre-implant observation period

(2) Monthly frequency of TP during period up to 12 months post-implant vs one month prior to implant (medical history)

Substantial reduction in TP well beyond 6 months post-implantation with alfapump®

** Note: Pre- and post-implant periods for this analysis of the Roll-In Cohort differ from those that will be used for the Pivotal Cohort analysis*

TP: *Therapeutic Paracentesis*

Roll-In Cohort: Safety in line with expectations

Primary safety endpoint:

- Rate of **alfa**pump related re-interventions adjudicated by Clinical Events Committee (CEC)

Interim data Roll-In Cohort (N=26):

- No unanticipated adverse device effects
- Three patients experienced a composite primary safety event as adjudicated by CEC:
  - Hematuria after car accident – **alfa**pump explant 1 in 1 patient
  - Wound dehiscence – **alfa**pump explant 1 in 1 patient
  - Arterial injury during implantation – patient died 1 in 1 patient

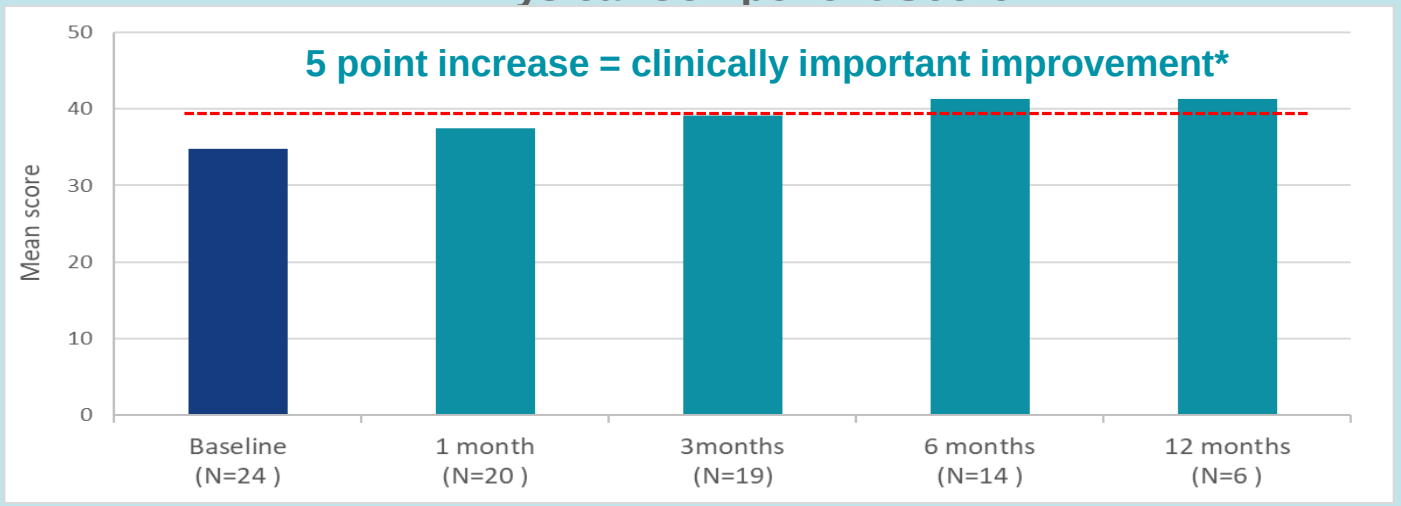
"Safety data reassuring for the potential of the alfapump as a long-term treatment in this fragile patient population" – Prof. Wong, Principal Investigator POSEIDON

Roll-In Cohort: Clinically important improvement in quality of life maintained up to 12 months

SF-36

General health-survey questionnaire

Physical Component Score

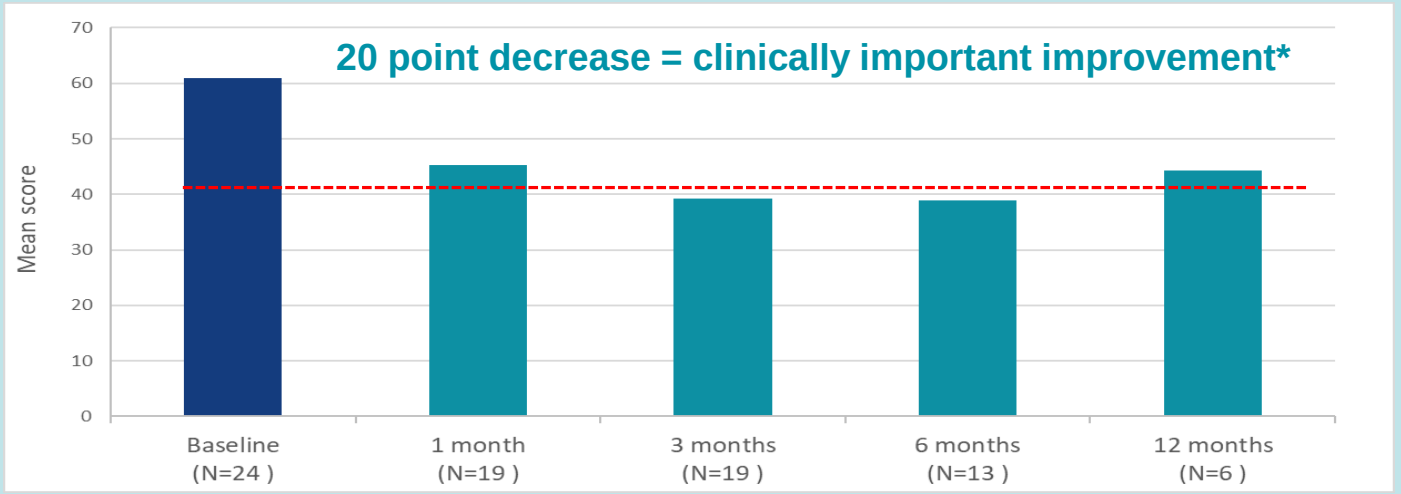


Higher is better

Ascites Q

Specific health-survey questionnaire for ascites

Total Score



Lower is better

** Clinically important improvement: exceeding the threshold for Minimal Clinically Important Difference*

Leading experts as Heart Failure Scientific Advisors

Dr. Maria Rosa Costanzo

Medical Director of the Edward Center for Advanced Heart Failure
Medical Director Heart Failure Research for the Advocate Heart Institute

Dr. Wilson Tang

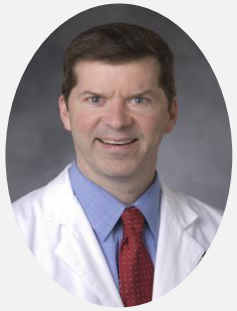
Professor of Medicine at Cleveland Clinic Lerner College of Medicine at Case Western Reserve University

Dr. Javed Butler

Professor and Chairman of the Department of Medicine at the University of Mississippi Medical Center

Dr. Jeffrey Testani

Associate Professor of Medicine and Director of Heart Failure Research at Yale University School of Medicine



Dr. Michael Felker

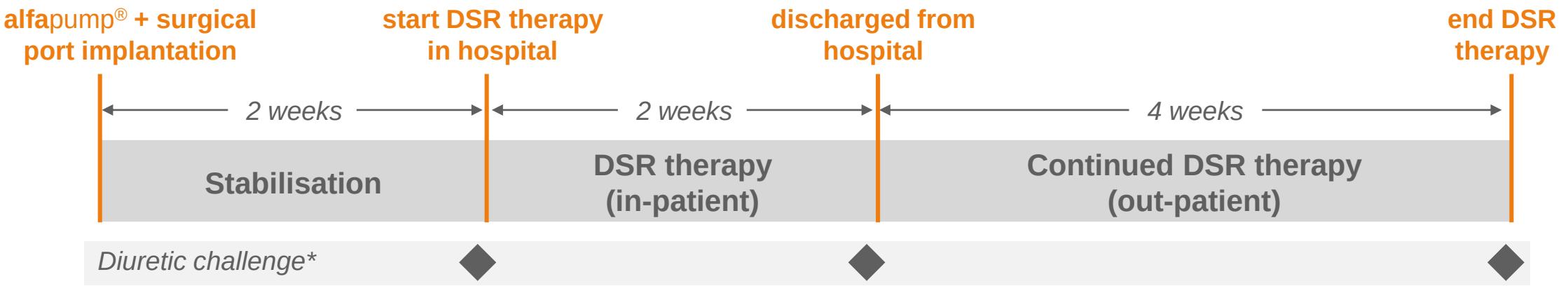
Professor of Medicine in the Division of Cardiology at Duke University School of Medicine
Director of Cardiovascular Research at the Duke Clinical Research Institute and Vice-Chief for Clinical Research in the Division of Cardiology

Dr. Udelson

Chief of the Division of Cardiology at Tufts Medical Center
Professor of Medicine and Radiology at Tufts University School of Medicine

RED DESERT – The first repeated DSR® therapy study

Repeated dose proof-of-concept study of alfapump DSR® in stable heart failure patients on high dose diuretics



Study Endpoints

- **Primary:** absence/rate of device, procedure and/or therapy related serious adverse events
- **Secondary:** ability of the **alfa**pump DSR to maintain a neutral sodium balance in the absence of diuretic therapy and the sustained effect of DSR to maintain euvolemia
- **Exploratory:** impact of DSR to restore response to diuretics following DSR treatment

** 40mg intravenous furosemide to evaluate diuretic response (6 hour sodium and fluid excretion)*

RED DESERT: Successful Proof-of-Concept Study

8 euvolemic heart failure patients on high dose diuretics treated with DSR 3x per week up to 6 weeks

Highly effective management of fluid and sodium balance

- Generally safe and well tolerated; no clinically relevant hyponatremia

Presented as Late-Breaker and Highlight at Heart Failure 2021

Significant improvement in cardio-renal function

- 30% decrease* in NT-proBNP** (p<0.001)
- 22% increase* in eGFR** (p<0.001) / 22% decrease* in creatinine** (p<0.001)

Dramatic and sustained improvement in diuretic response

- End of 6-week study: over 150% increase** in diuretic response***
- Long-term follow-up (9-19 months after study completion): 40-96% reduction in diuretic dose at last visit during follow-up

"Simultaneous normalisation of diuretic response and improvement in cardio-renal status is a never before seen treatment effect" – Dr. Testani, Yale

** Paired statistical analysis of patients with baseline and D42 value (N=7); ** mean value; ***assessed by 6-hour excretion of sodium after IV administration of 40mg furosemide*

***NT-proBNP**: N-terminal-pro hormone B-type Natriuretic Peptide (analysed in local lab); **eGFR**: estimated glomerular filtration rate*

sequanamedical

RED DESERT: Highly effective management of fluid & sodium

No loop diuretics required during study despite mean baseline dose of >300 mg/day furosemide equivalents

Subject	Ejection Fraction (%)	NT-proBNP (pg/mL)	Daily Dose of loop diuretics (mg)**	
	At baseline	At baseline	At baseline	During DSR Treatment (D0 - 42)
101-001	26	6,110	80	0
101-002	27	2,863	200	0
101-003	28	1,536	400	0
101-005	25	1,628	120	0
101-006*	23	1,963	80	0
101-007*	26	5,927	300	0
101-008*	20	7,853	600	0
101-009†	20	8,831	800	0
Mean (± SD)	*24 ± 3*	*4,589 ± 2,945*	*323 ± 263*	

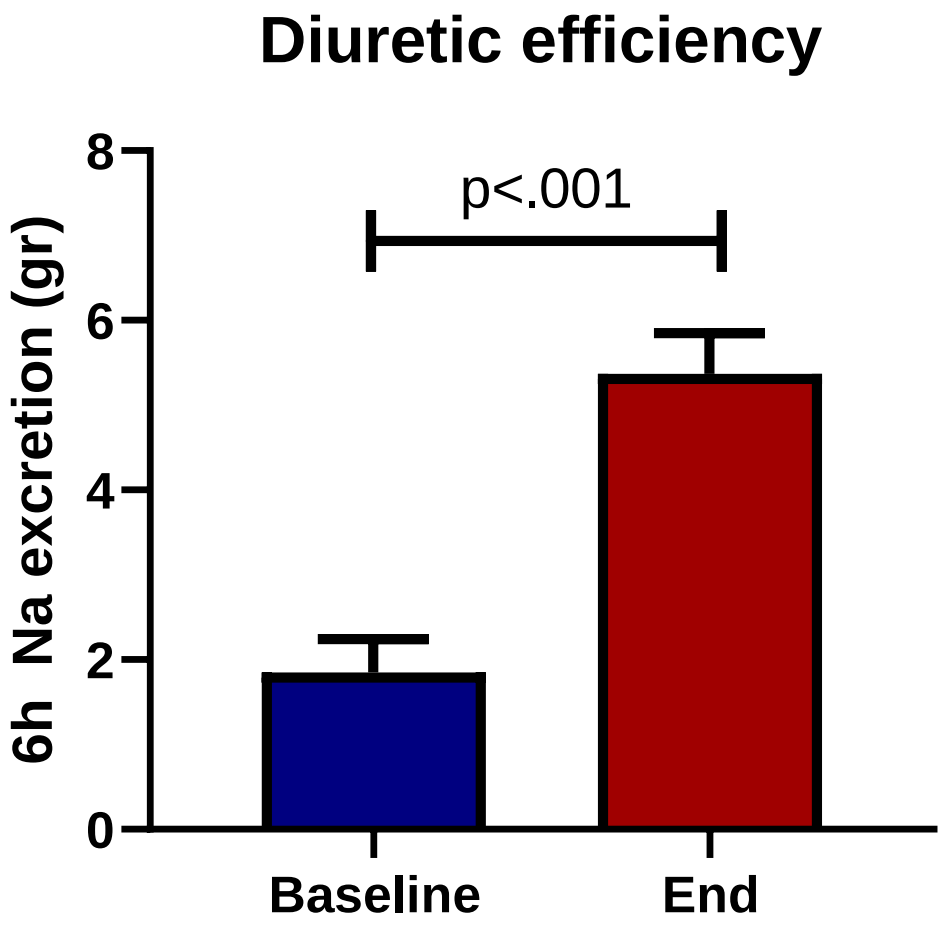
Study recruited severely ill heart failure patients on very high doses of oral loop diuretics

** in follow-up extension with DSR; † subject 101-009 died at D3*
*** loop diuretics in furosemide equivalents (mg)*

***NT-proBNP**: N-terminal-pro hormone B-type Natriuretic Peptide – analysed in local lab*

RED DESERT: Dramatic improvement in diuretic efficiency

Over 150% increase in mean diuretic response*



** 6 hour Na excretion following administration of 40mg intravenous furosemide; paired statistical analysis of patients with baseline and D42 value (N=7)*

RED DESERT: Long-term follow-up of patients

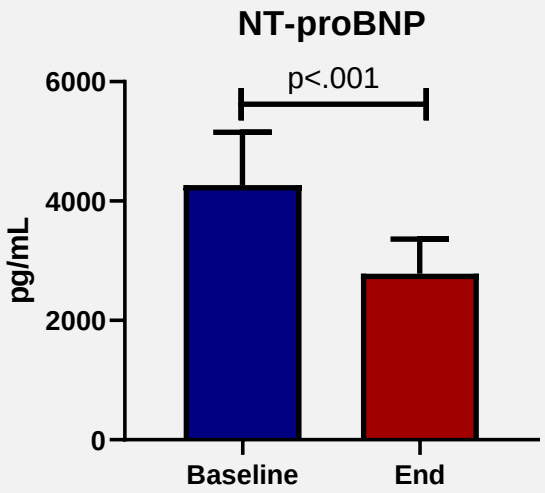
Durable improvement in diuretic response following alfapump DSR® therapy

Subject	Daily dose of loop diuretics**		Time since last DSR treatment in the study	Current known daily dose***	Currrent known reduction in diuretic dose
	At screening	During DSR treatment (D0 – D42)			
101-001	80	0	19 months	40	**-50%**
101-002	200	0	19 months	120	**-40%**
101-003	400	0	16 months	160	**-60%**
101-005	120	0	16 months	40	**-67%**
*101-006	80	0	14 month	20 EOD	**-88%**
*101-007	300 (400 EOD + 200 EOD)	0	9 month	40 BIW	**-96%**
*101-008†	600	0	9 month	80	**-87%**
101-009†	800	0	NA	NA	**NA**

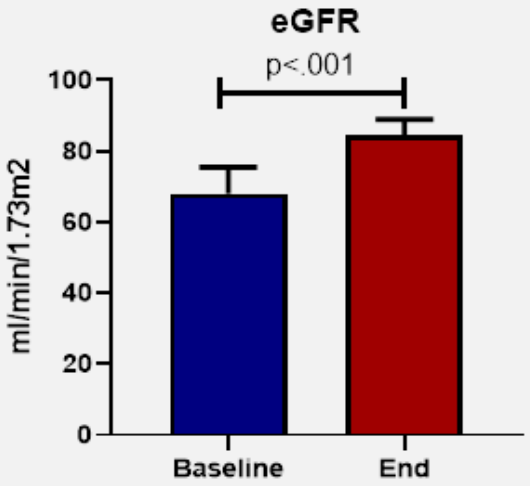
** in follow-up extension with DSR; † subject 101-008 died in follow-up extension (9 months after end of study), subject 101-009 died at D3*
*** loop diuretics in furosemide equivalents (mg)*
**** loop diuretics in furosemide equivalents (mg) – status 5 Nov 2021*

***EOD:** every other day; **BIW**: two times per week*

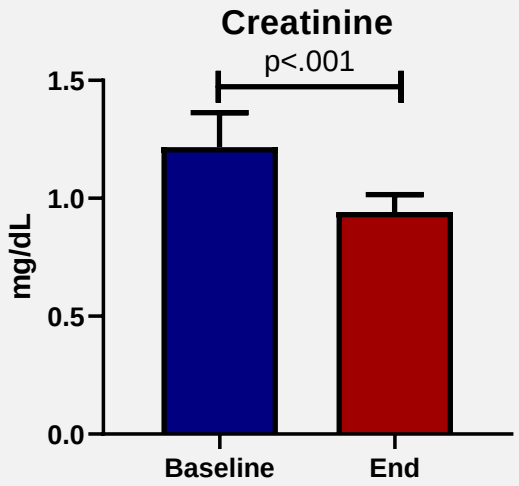
RED DESERT: Significant improvement in cardio-renal function*



30% decrease in mean natriuretic peptides



22% increase in mean eGFR



22% decrease in mean creatinine

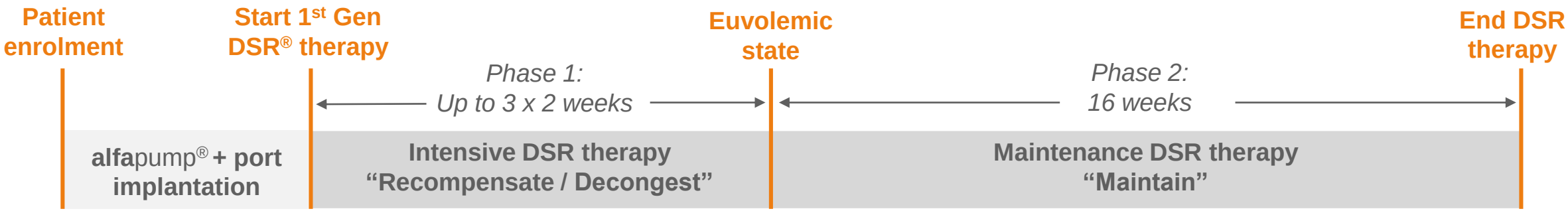
"The simultaneous normalisation of diuretic response and improvement in cardio-renal status of the RED DESERT patients is a never before seen treatment effect and could translate into important long-term clinical benefits in heart failure patients" – Dr. Testani

** Paired statistical analysis of patients with baseline and D42 value (N=7)*

***NT-proBNP**: N-terminal-pro hormone B-type Natriuretic Peptide (analysed in local lab); **eGFR**: estimated glomerular filtration rate*

SAHARA DESERT: Ph. 2a in target patient population

20 decompensated heart failure patients with persistent congestion on high dose diuretics – ongoing



Study Endpoints

- **Primary:** safety and tolerability of **alfa**pump DSR® therapy
- **Secondary:** feasibility of DSR therapy to restore and maintain euvolemia without additional loop diuretics
- **Exploratory:** evaluate potential impact of SGLT-2 inhibitors on DSR therapy*

** patients will be randomised 1:1 to DSR therapy +/- SGLT-2 inhibitor therapy*

SAHARA DESERT interim analysis

6 severe heart failure patients with persistent congestion on high dose diuretics

Mean values at baseline of 6 patients in interim analysis	
Left ventricular ejection fraction:	low 20%
NT-proBNP:	>6,000 pg/mL
Furosemide equivalent dose: (standard of care)	~250 mg/day

***NT-proBNP**: N-terminal-pro hormone B-type Natriuretic Peptide; analysed in local lab*

Study status of 6 patients in interim analysis	
Phase 1:	n = 2 (1 complete, 1 ongoing)
Phase 2:	n = 4 (1 complete, 3 ongoing)

SAHARA DESERT: Ph. 2a positive interim data

Data from 6 patients indicates additional ability to safely decongest decompensated patients

Safe, effective and rapid elimination of persistent congestion and restoration of euvolemia without any loop diuretics

- Mean weight loss of ~6kg (=7% of body weight) vs. baseline

Considerable benefit in cardio-renal status

- Reduction* in NT-proBNP >30% vs. baseline
- Stable eGFR* and creatinine*
  - Worsening in kidney function is normally expected during significant volume removal

Dramatic improvement in diuretic responsiveness for months post-treatment

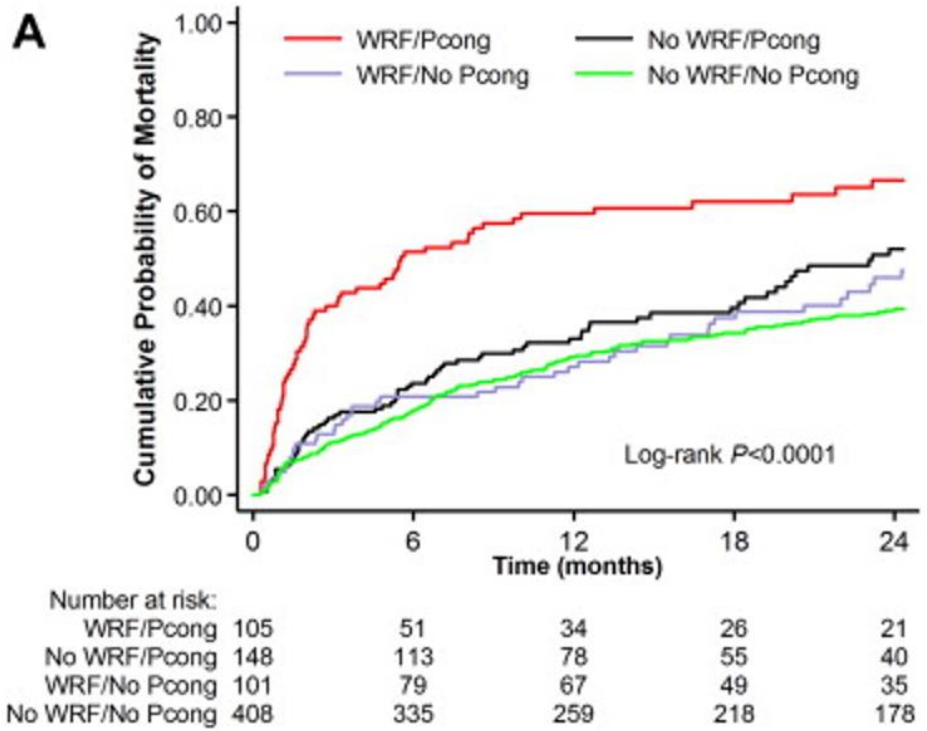
- End of phase 1 (n=6***): more than doubling* of sodium excretion** (near normal levels)
- 3 months* after end of Phase 1 (n=4): less than 10% of their baseline loop diuretic dose

"These interim results are highly encouraging and could potentially provide a course of therapy for severely ill diuretic-resistant heart failure patients with persistent congestion where alternative treatment options are currently exceedingly limited" – Dr. Testani

mean value; ** assessed by 6-hour excretion of sodium after IV administration of 40mg furosemide * one patient has completed first 2-week dosing in phase 1 and is about to enter second 2-week dosing in phase 1*
***NT-proBNP**: N-terminal-pro hormone B-type Natriuretic Peptide (analysed in local lab); **eGFR**: estimated glomerular filtration rate*

Persistent congestion and Worsening renal function

Persistent congestion and worsening renal function are key targets in decompensated heart failure



Wattad et al, American Journal of Cardiology, 2015: interaction between worsening renal function and persistent congestion in acute decompensated heart failure (study of 762 patients)

***WRF**: Worsening Renal Function; **ADHF**: Acute Decompensated Heart Failure; **Pcong:** Persistent Congestion*

SAHARA DESERT interim analysis

Repeated alfapump® DSR therapy was safe and well-tolerated

- No clinically significant changes in serum sodium levels or other electrolytes after intensive DSR therapy

- Reported adverse events were manageable:
  - ⇨ Diarrhea (1 patient)
  - ⇨ Catheter blockage (1 patient)
  - ⇨ Smart charger communication error (2 patients)

Evaluating potential for DSR® in renal failure

Complementary opportunity leveraging heart failure programme capabilities

- Like heart failure, kidney failure / dialysis is one of the leading burdens for healthcare systems and carries a high mortality / morbidity burden
- Hemodialysis seeks to tackle two different challenges – removal of uremic toxins as well as managing the sodium and fluid balance – creating clinical and economic challenges
- DSR therapy has the potential to more effectively manage the fluid and sodium balance of this large patient group
  - ⇨ Leveraging all of our experience from congestion / fluid overload in heart failure
- We are exploring the potential of DSR in this large and important patient group, potentially reducing hospitalisations, the cost and burden of hemodialysis therapy as well as mortality
  - ⇨ Supporting work of Dr McIntyre (Lawson Health Research Institute, Ontario, Canada): evaluating the use of DSR therapy in effective volume management and sodium removal in prevalent hemodialysis patients (NCT04603014)