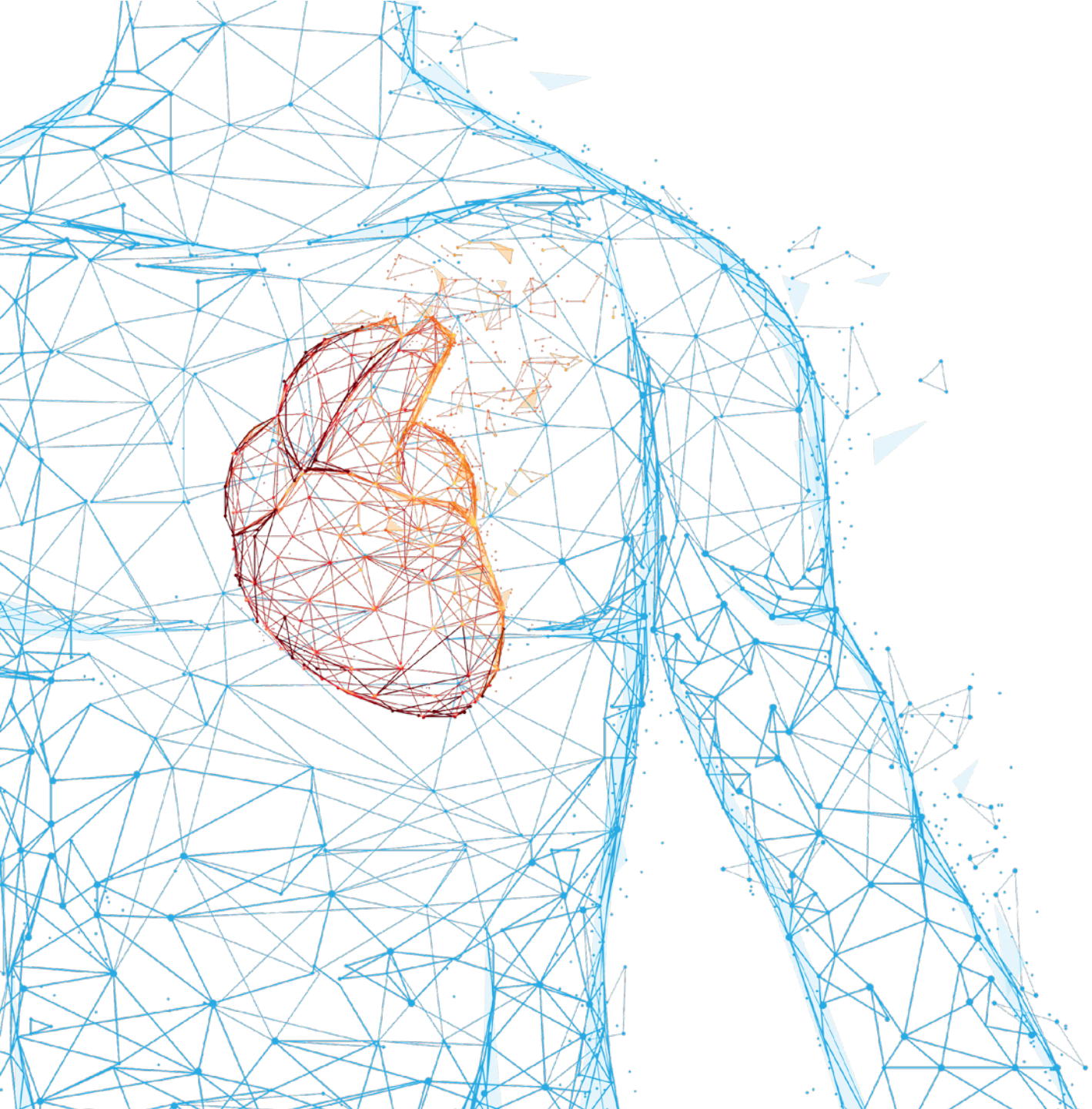


Bellerophon Therapeutics

Conference Call I June 5, 2023

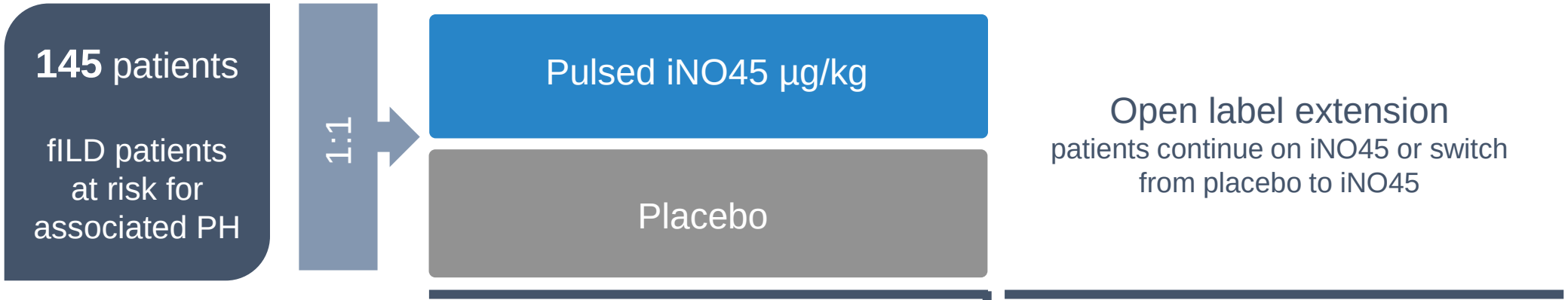
Forward Looking Statements

This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this presentation, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make due to a number of important factors, including risks and uncertainties relating to: INOpulse® not proving to be an effective treatment or approved for marketing by the FDA, the timing and outcomes of our ongoing and expected clinical trials for our product candidates; our ability to successfully develop, commercialize and market any of our product candidates; our ability to obtain, maintain and enforce intellectual property rights; competition; our reliance on third parties; our ability to obtain necessary financing; and those risk factors discussed in the “Risk Factors” section and elsewhere in our most recent Form 10-K and other periodic filings we make with the SEC.

All forward-looking statements contained in this presentation reflect our current views with respect to future events. We assume no obligation, except as required by applicable law, to update any forward-looking statements publicly, or to update the reasons why actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.

Pivotal Phase 3 Trial Design

REBUILD



Open label extension
patients continue on iNO45 or switch from placebo to iNO45

Primary Endpoint

- Change in MVPA assessed by Actigraphy

Additional Endpoints

- Change in Overall Activity assessed by Actigraphy
- Patient Reported Outcomes (SGRQ, UCSD)
- Time to Clinical Worsening

Safety

REBUILD Demographics

Demographics were balanced between the arms

	INO45	Placebo
Total Patients	75	70
• **Intermediate/High Probability of PH**	31 (41.3%)	29 (41.4%)
• **Low Probability of PH**	44 (58.7%)	41 (58.6%)
Age – Mean (SD)	67.8 (9.5)	68.7 (9.4)
Male (%)	64.0%	60.0%
Race (%)		
• **White**	81.3%	80.0%
• **Black or African American**	10.7%	14.3%
• **Asian**	2.7%	2.9%
• **Other**	5.3%	2.9%
BMI – Mean (SD)	29.20 (4.87)	29.41 (4.36)
Baseline MVPA – Mean (SD)	66.3 (46.8)	67.9 (53.4)
Baseline 6 minute walk distance – Mean (SD)	267.3 (69.2)	266.3 (75.9)

MVPA in minutes per day; 6 minute walk distance in meters

REBUILD Primary Endpoint (MVPA)

Trial did not meet its primary endpoint of change in MVPA (moderate to vigorous physical activity)

		iNO45	Placebo	Placebo Corrected Change
Change from Baseline	LS Mean (SE)	-9.22 (3.51) min/day	-3.74 (3.76) min/day	-5.49 min/day (p=0.2646*)

Analysis based on all randomized subjects who received at least one dose of study treatment (defined as minimum use of 12 hours); Statistical analysis are calculated from MMRM (mixed model repeat measures) including the treatment group, visit, treatment-by-visit interaction, stratification factors (PH, CTD, PDE5) and baseline as fixed effects.

*p-value calculated based MMRM analysis of log-transformed MVPA as specified in statistical analysis plan

REBUILD Secondary Endpoints

Minimal difference between the two groups

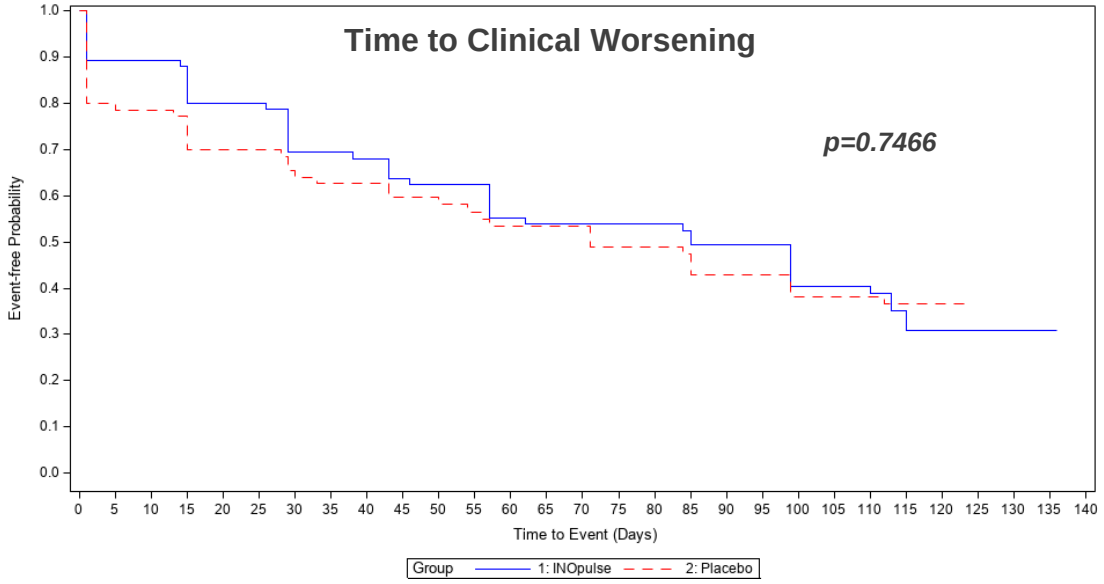
Endpoint	INO45	Placebo	Placebo Corrected Change	p-value
Overall Activity	-74.36 counts/min	-77.88 counts/min	+3.51 count/min	0.8572*
UCSD SOBQ	+4.27 points	-0.25 points	+4.52 points	0.1397
SGRQ – Total	+4.83 points	+3.97 points	+0.86 points	0.6929
SGRQ – Activity	+4.77 points	+1.97 points	+2.79 points	0.2198
SGRQ – Impacts	+5.21 points	+4.12 points	+1.09 points	0.6910
6 minute walk distance	-12.36 meters	-12.54 meters	+0.19 meters	0.9866

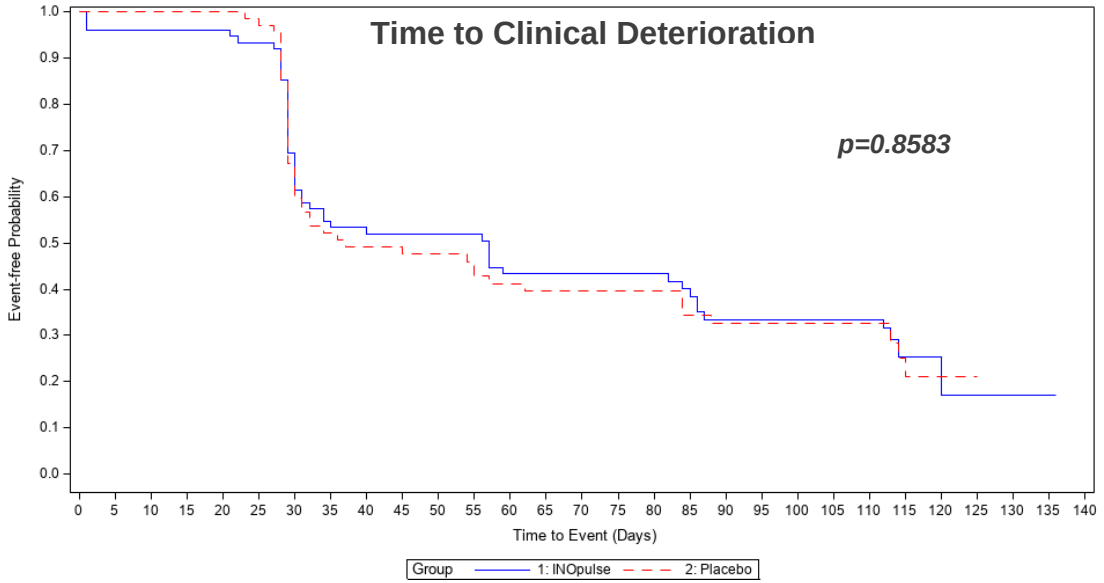
Analysis based on all randomized subjects who received at least one dose of study treatment (defined as minimum use of 12 hours); Statistical analysis are calculated from MMRM (mixed model repeat measures) including the treatment group, visit, treatment-by-visit interaction, stratification factors (PH, CTD, PDE5) and baseline as fixed effects.

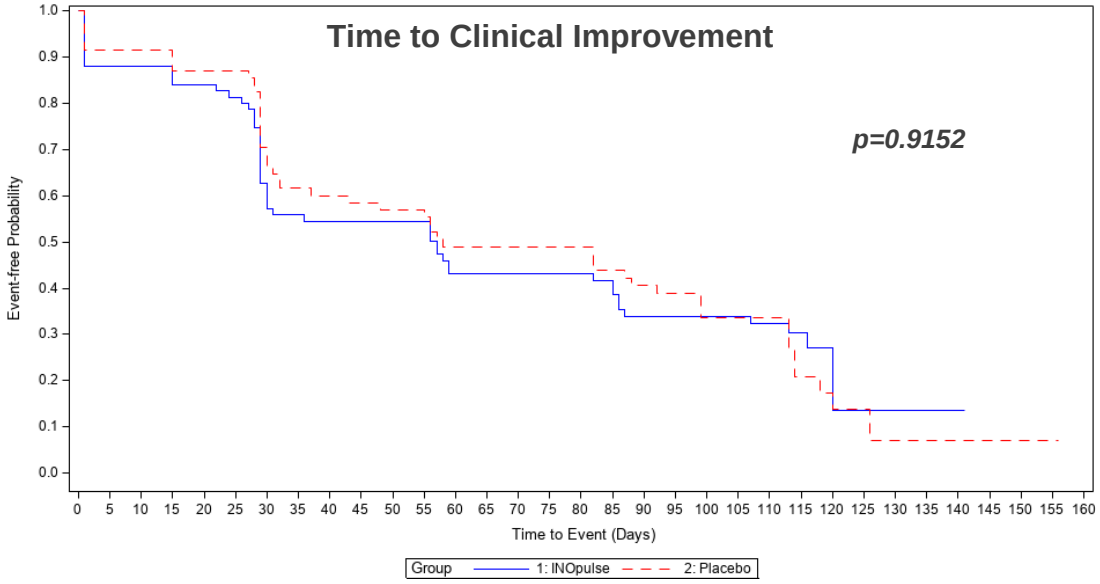
*p-value calculated based MMRM analysis of log-transformed MVPA as specified in statistical analysis plan

UCSD SOBQ (University of California Shortness of Breath Questionnaire); SGRQ (St. George's Respiratory Questionnaire); higher scores indicate deterioration

REBUILD Secondary Endpoints (time to event)







Time to event, defined as first event, otherwise censored to the end date of the double-blind period. Log-Rank p-value is calculated from log rank test comparing INOpulse treatment group to placebo.

REBUILD Safety Assessment

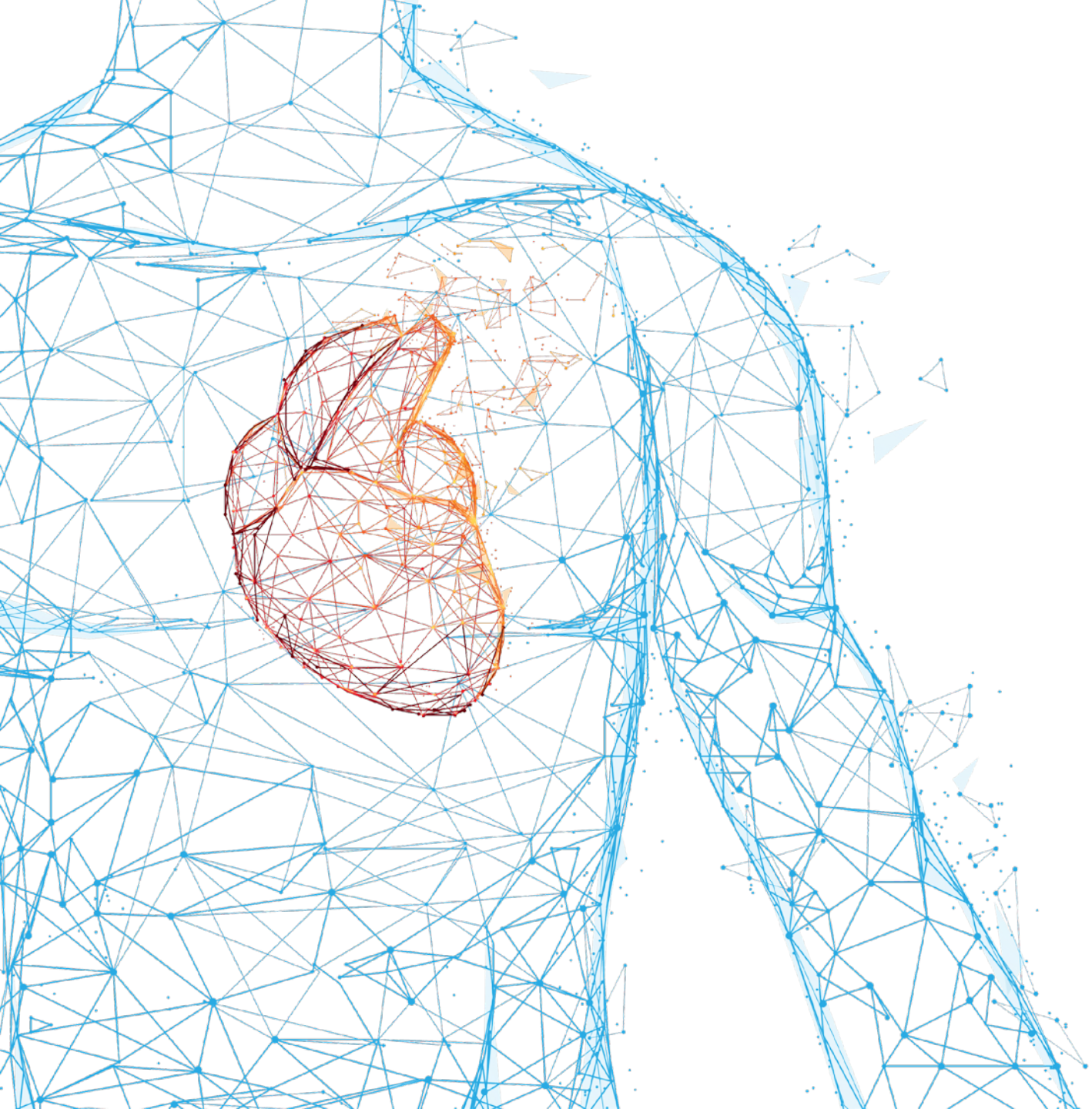
Overall Safety profile was balanced

	INO45	Placebo
Subjects with TEAE	84.0%	74.3%
Subject with Serious TEAE	20.0%	21.4%
Death	4.0%	4.3%

Safety analysis based on all subjects who received at least one dose post randomization (defined as exposure to INOpulse of any duration) of treatment intervention.

TEAE (treatment emergent adverse event) is defined as an AE with onset after the administration of treatment intervention through the end of the study or any event that was present at baseline but worsened in intensity or was subsequently considered drug-related by the investigator through the end of the study.

If a subject experienced more than 1 event in a given category, that subject is counted only once in that category.



Investor Contacts

Bellerophon Investor Relations
BTInvestorRelations@bellerophon.com

Brian Ritchie I LifeSci Advisors
britchie@lifesciadvisors.com
212-915-2578