Supplementary Appendix:

Table 1. Baseline characteristics of in IPF Cohort, period 1.

	IPF (IPF Cohort		
	PA101/Placebo	Placebo/PA101		
N	12	12		
Age	64 ± 6 (56-74 years)	69 ± 6 (59-79 years)		
Sex	7 Male / 5 Female	8 Male / 4 Female		
Ethnicity (Caucasian)	10	12		
BMI	30.1 ± 4.5	28.2 ± 2.9		
Time since IPF diagnosis	$3.8 \pm 2.3 (1 - 8 \text{ years})$	4.3 ± 4.1 (1 - 13 years)		
Duration of Chronic Cough	$4.9 \pm 3.0 \ (2-12 \ years)$	$6.3 \pm 5.2 (1\text{-}16 \text{years})$		
VAS Cough Severity	59.8 ± 19.1	63.1 ± 12.5		
LCQ (QOL)	12.9 ± 3.6	12.9 ± 2.7		

Data presented as mean \pm SD. IPF = Idiopathic Pulmonary Fibrosis; N= Number; BMI = Body Mass Index; VAS = Cough severity Visual Analogue Scale; LCQ = Leicester Cough Questionnaire.

Table 2. Baseline characteristics in of CIC Cohort, period 1.

	CIC Cohort		
	PA101/Placebo	Placebo/PA101	
N	13	14	
Age	$62 \pm 14 (23-73 \text{ years})$	62 ± 8 (44-73 years)	
Sex	2 Male/11 Female	4 Male/10 Female	
Ethnicity (Caucasian)	13	14	
ВМІ	25.8 ± 5.0	29.4 ± 6.0	
Duration of Chronic Cough	$10.2 \pm 6.3 \ (2-20 \ years)$	9.6 ±12.4 (2-43 years)	
VAS	68.5 ± 17.8	72.3 ± 12.3	
LCQ	11.1 ± 2.7	9.9 ± 2.4	

Data presented as mean \pm SD. CIC = Chronic Idiopathic Cough; BMI = Body Mass Index; VAS = Visual Analog Scale; LCQ = Leicester Cough Questionnaire.

Table 3. Post-hoc Analysis (Non-parametric Testing Using Mixed Effects Model on Ranked Data): Change from Baseline in Daytime Cough Frequency at Day 14 in IPF Cohort.

Least Squares Means							
Treatment	Estimate	Standard Error	DF	t Value	p Value	Lower CI	Upper CI
PA101	9.5791	1.2978	18	7.38	<.0001	6.8525	12.3057
Placebo	13.6410	1.3584	18	10.04	<.0001	10.7871	16.4949
		Differences of	Least Square	es Means (F	PA101-Placebo)		
Estimate	Standard Error	DF	t Va	lue	p Value	Lower CI	Upper CI
-4.0619	1.8540	18	-2.1	19	0.0419	-7.9570	-0.1668

IPF = Idiopathic Pulmonary Fibrosis; DF = Degrees of Freedom; CI = Confidence Interval.

Table 4. Post-hoc Analysis (Parametric Testing with Mixed Effects Model Using Non-transformed Data): Change from Baseline in Daytime Cough Frequency at Day 14 in IPF Cohort.

Least Squares Means							
Treatment	Estimate	Standard Error	DF	t Value	p Value	Lower CI	Upper CI
PA101	-14.5153	5.3138	35.5	-2.73	0.0098	-25.2974	-3.7333
Placebo	1.3429	5.6158	36.4	0.24	0.8123	-10.0419	12.7277
		Diffe	rences of Le	ast Squares l	Means		
Estimate	Standard Error	DF	t V	alue	p Value	Lower CI	Upper CI
-15.8582	7.0077	11.4	-2	.26	0.0441	-31.2213	-0.4951

IPF = Idiopathic Pulmonary Fibrosis; DF = Degrees of Freedom; CI = Confidence Interval.

Table 5. Summary Statistics in Each Period: IPF Cohort

	Treatment Period 1 (IPF Cohort)			
	Baseline	D7	D14	
PA101 (n=12)	67.1	38.7	40.1	
% Change from baseline			-42%	
Placebo (n=10)	60.3	63.4	58.7	
% Change from baseline			-3%	
	Treatment Period 2 (IPF Cohort)			
	Baseline	D7	D14	
PA101 (n=11)	41.4	37.9	37.7	
% Change from baseline			-9%	
Placebo (n=11)	42.4	50.1	48.3	
% Change from baseline		•	14%	

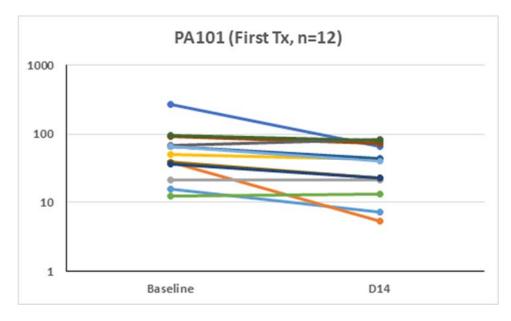
IPF = Idiopathic Pulmonary Fibrosis.

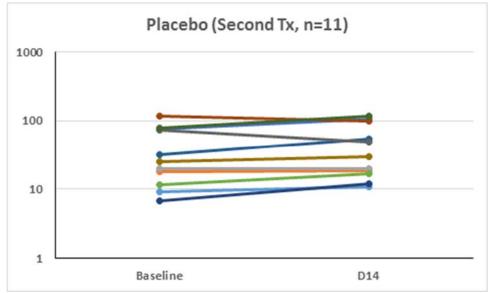
Table 6. Summary Statistics in Each Period: CIC Cohort

	Treatm	Treatment Period 1 (CIC Cohort)			
	Baseline	D7	D14		
PA101 (n=13)	65	49	35		
% Change from baseline			-46%		
Placebo (n=12)	53	41	48		
% Change from baseline			-8%		
	Treatm	Treatment Period 2 (CIC Coho			
	Baseline	D7	D14		
PA101 (n=10)	29	32	43		
% Change from baseline		=	47%		
Placebo (n=12)	37	27	25		
% Change from baseline		_	-34%		

CIC = Chronic Idiopathic Cough.

Figure 1. Individual Daytime Cough Frequency Data by Treatment Period in IPF Cohort (PA101 treatment period 1)

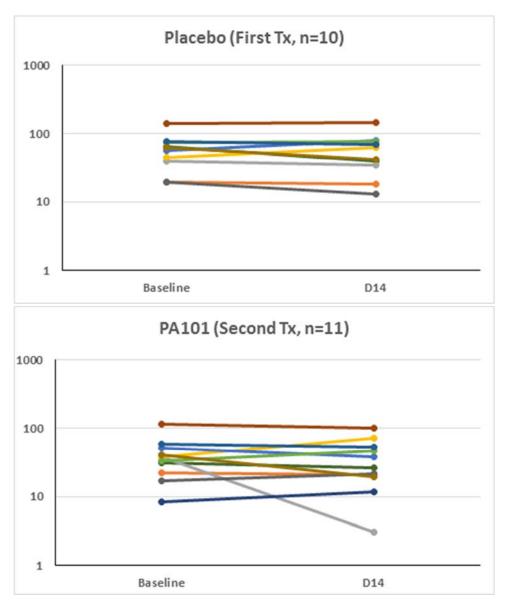




First Tx= period 1.

Second Tx= period 2.

Figure 2. Individual Daytime Cough Frequency Data by Treatment Period in CIC IPF Cohort (Placebo period 1)



First Tx= period 1.

Second Tx= period 2.