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

Date of Report (Date of earliest event reported): January 9, 2023

PLIANT THERAPEUTICS, INC.
(Exact name of Registrant as Specified in Its Charter)

Delaware	**001-39303**	**47-4272481**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

260 Littlefield Avenue, South San Francisco, CA	**94080**
(Address of Principal Executive Offices)	**(Zip Code)**

Registrant's Telephone Number, Including Area Code: (650) 481-6770

Not Applicable
(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))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, par value $0.0001 per share	PLRX	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

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 7.01 Other Events.

Pliant Therapeutics, Inc. (the "Company") intends to conduct meetings with securities analysts, investors and others in connection with the 41st Annual J.P. Morgan Healthcare Conference beginning on January 9, 2023. As part of these meetings, the Company intends to utilize the corporate slide presentation furnished with this report as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Corporate Slide Presentation dated January 9, 2023.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

The information in this Item 7.01 is being furnished, not filed, pursuant to Regulation FD. Accordingly, the information in Item 7.01 of this report will not be incorporated by reference into any registration statement filed by the Company under the Securities Act of 1933, as amended, unless specifically identified therein as being incorporated therein by reference. The furnishing of the information in this report is not intended to, and does not, constitute a determination or admission by the Company that the information in this report is material or complete, or that investors should consider this information before making an investment decision with respect to any security of the Company.

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 thereunto duly authorized.

PLIANT THERAPEUTICS, INC.

Date: January 9, 2023

By: /s/ Keith Cummings
Keith Cummings, M.D., MBA
Chief Financial Officer

Exhibit 99.1

PLIANT

Developing Novel Treatments for Fibrotic Diseases

JANUARY **2023**

Disclaimers

This presentation has been prepared by Pliant Therapeutics, Inc. ("we," "us," "our," "Pliant" or the "Company"). The information set forth herein does not purport to be complete or to contain all of the information you may desire. Statements contained herein are made as of the date of this presentation unless stated otherwise, and this presentation shall not under any circumstances create an implication that the information contained herein is correct as of any time after such date or that information will be updated or revised to reflect information that subsequently becomes available or changes occurring after the date hereof.

This presentation includes forward-looking statements regarding Pliant's proprietary drug candidates, the timing of the start and conclusion of ongoing or planned clinical trials, including the timing of, and our ability to achieve, anticipated milestones, the sufficiency of our cash, cash equivalents and short-term investments, the timing and outcome of regulatory decisions, future availability of clinical trial data, our collaborations for our product candidates and the maintenance of those collaborations; business and results from operations; and other matters. Actual results could differ materially from those contained in any forward-looking statements as a result of various factors, including without limitation: that Pliant's drug candidates do not advance in development or result in approved products on a timely or cost effective basis or at all; the cost, timing and results of clinical trials; our ability to manage and mitigate the impact of the ongoing COVID-19 pandemic; that many drug candidates that have completed early-stage trials do not become approved drugs on a timely or cost effective basis or at all; the ability to enroll patients in clinical trials; possible safety and efficacy concerns; regulatory developments; the ability of Pliant to protect its intellectual property rights, and unexpected costs, charges or expenses that reduce cash runway. Pliant's pipeline programs are in various stages of pre-clinical and clinical development, and the process by which such pre-clinical or clinical therapeutic candidates could potentially lead to an approved therapeutic is long and subject to significant risks and uncertainties. Pliant undertakes no obligation to update forward-looking statements as a result of new information or otherwise. For a discussion of these and other risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" and elsewhere in the Company's most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q on file with the Securities and Exchange Commission (the "SEC") and our other filings with the SEC.

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 concerns drugs that are under clinical investigation and which have not yet been approved for marketing by the U.S. Food and Drug Administration (the "FDA"). They are currently limited by Federal law to investigational use, and no representation is made as to their safety or effectiveness for the purposes for which they are being investigated.

Pliant – Company Highlights

Industry-Leading Fibrosis Platform

- Built on integrin-mediated inhibition of TGF-β pathway resulting in antifibrotic effect and shown to be safe
- Proprietary drug discovery platform based on novel in-house compound library of integrin binders
- Lead molecule bexotegrast (PLN-74809) is highly antifibrotic in lung and liver while well tolerated at highest doses tested

Programs Targeting High Unmet Medical Need with High-Impact, Near-Term Catalysts

- Bexotegrast in Phase 2a development in IPF and PSC
  - Phase 2a data in IPF showed bexotegrast was well tolerated with strong treatment effect on FVC and QLF
  - 320 mg: positive DSMB review (IPF/ PSC); interim 12-week IPF data early 1Q 2023
  - IND submitted for PLN-101095: a potential first in class small molecule dual $\alpha_V\beta_8$ / $\alpha_V\beta_1$ inhibitor addressing ICI resistance

Strategic Partnership with Novartis Validates Platform

- Largest ($80M) upfront for a preclinical NASH program
- Significant expense offset to pipeline programs
- Broad multi-target research collaboration
  - Next generation anti-fibrotic molecules targeting novel integrins

Strong Financial Position

- Over $625 million raised to date including June 2020 IPO (Nasdaq: PLRX) and $230 million follow on July 2022
- $360.2M cash balance as of September 30, 2022
- $100 million loan facility ($10 million drawn)
- Operations funded to mid-2025

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The Pliant Team
Experienced in Fibrosis and Drug Development

Core Team

Bernard Coulie, M.D., Ph.D., M.B.A.
President, CEO, and Director

Hans Hull, J.D.
Chief Business Officer

Éric Lefebvre, M.D.
Chief Medical Officer

Keith Cummings, M.D., M.B.A.
Chief Financial Officer

Scott Turner, Ph.D.
Senior Vice President, Head of Research

Greg Cosgrove, M.D., FCCP
Vice President, Clinical Development (IPF)

Founders

Dean Sheppard, M.D.
Professor of Medicine, Chief of the Division of Pulmonary, Critical Care, Allergy and Sleep, and Director of the Lung Biology Center.

William DeGrado, Ph.D.
Professor of Pharmaceutical Chemistry

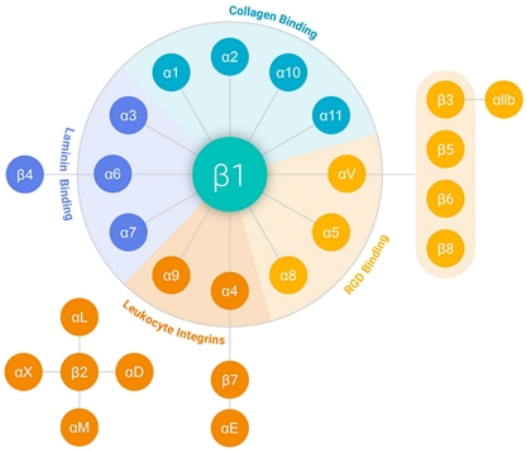
Rik Derynck, Ph.D.
Professor, Cell and Tissue Biology, Co-Director of the Eli and Edythe Broad Center of Regeneration Medicine and Stem Cell Research

Harold Chapman, M.D.
Professor of Medicine, Division of Pulmonary, Critical Care, Allergy and Sleep

Pliant's Integrin Focused Library
Core Platform for Novel Pipeline and Partner Programs

Integrins

- Cell surface receptors that facilitate cell-cell and cell-extracellular matrix adhesion and interaction
- A major path of communication between the extracellular matrix, inflammatory cells, fibroblasts
- Closely involved in signaling processes governing tissue fibrosis



Pliant's Proprietary Library of 10,000+ Integrin Binding Compounds

- Emphasis on optimal pharmacokinetic and selectivity profile
- Broad spectrum of receptor subfamilies including α_V integrins, collagen and laminin binders

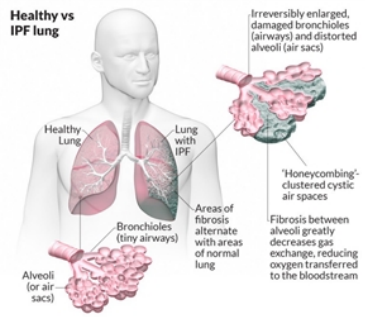
Pliant Development Pipeline

	Program	Indication	Preclinical	Clinical			Anticipated Milestone	Global Rights
				Phase I	Phase II	Phase III		
WHOLLY OWNED	Bexotegrast (PLN-74809) Dual selective inhibitor of $\alpha_v\beta_6$ /$\alpha_v\beta_1$	Idiopathic Pulmonary Fibrosis					Phase 2a 320 mg 12-Week Data Expected Early 1Q 2023	PLIANT
		Primary Sclerosing Cholangitis					Phase 2a Data Expected 3Q 2023	PLIANT
	PLN-101095 Inhibitor of $\alpha_v\beta_8$ /$\alpha_v\beta_1$	Solid Tumors					IND Filed; Phase 1 Initiation 2Q 2023	PLIANT
	PLN-101325 Anti-integrin mAb of $\alpha_7\beta_1$	DMD Other Muscular Dystrophies					IND Filing Expected 2023	PLIANT
PARTNERED	PLN-1474 Selective inhibitor of $\alpha_v\beta_1$	NASH-Associated Liver Fibrosis					Phase 2 Initiation	NOVARTIS

Fibrosis – A Silent Killer

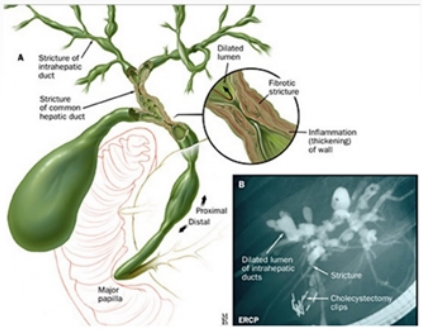
Idiopathic Pulmonary Fibrosis (IPF) is a lethal pathological process with limited therapeutic options

- 140k patients in the U.S.; 30k-40k new cases/year; 40k deaths/year
- **Median survival: 3–5 years -** Worse than some common cancers



Primary Sclerosing Cholangitis (PSC) is a progressive inflammatory liver disease resulting in scarring of bile ducts, and cirrhosis

- 30k-45k patients in the U.S.
- **Median survival: 10-12 years** without intervention
- Currently **no FDA approved therapeutics**



Bexotegrast
Understanding the IPF Commercial Opportunity

Current Commercial Landscape in IPF

- Two marketed agents – Esbriet® and Ofev®
  - **>$3 billion total global revenues** in 2021
- Growing market with positive tailwinds
  - Increasing incidence of IPF with aging population
  - New therapies expanding treatable population

Significant Need for New Therapeutic Options

- Esbriet and Ofev display modest slowing of IPF progression
  - Inconclusive evidence of survival benefit
  - No improvement on patient quality of life
  - **Significant tolerability issues**

Changing Treatment Landscape

- Near-term patent expiry of current treatments
  - Esbriet: First generic sold May 2022
  - Ofev: Loss of US market exclusivity 2025 (2026 for sscILD)

Bexotegrast: A Potential Preferred Treatment Option

- **Targeted inhibition of fibrotic process**– tissue specific inhibition of TGF-β
- **Once daily oral** administration
- Well tolerated with anti-fibrotic effect
  - Dose-dependent FVC benefit across all doses, as monotherapy and in combination with current treatments
  - **No discontinuations** due to adverse events
- Bexotegrast will be evaluated as **backbone therapy** to be used as monotherapy, and with current treatments

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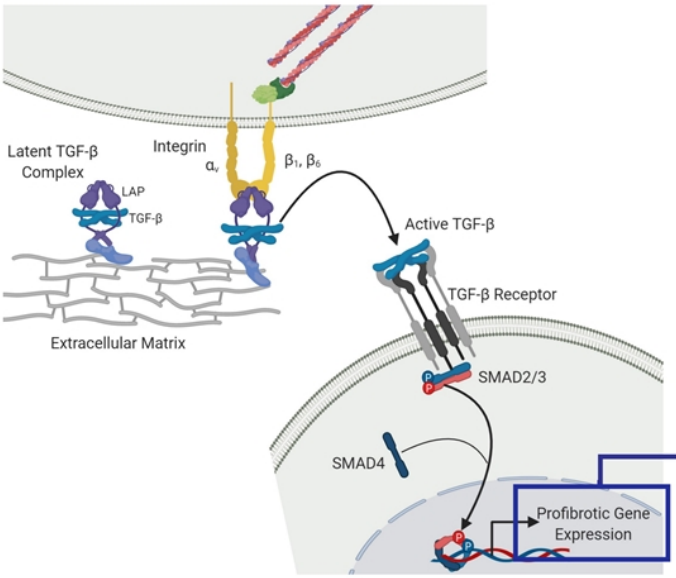
Esbriet® is a trademark of Genentech / Roche
Ofev® is a trademark of Boehringer Ingelheim International

$\alpha_v\beta_6$ / $\alpha_v\beta_1$ Integrins Drive Cell-Matrix Interactions in Fibrosis

$\alpha_v\beta_6$ / $\alpha_v\beta_1$ Integrins promote fibrosis by TGF-β activation

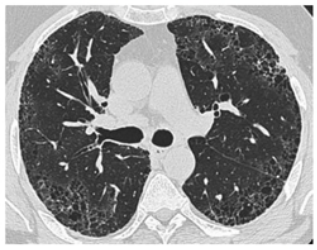


- TGF-β is central mediator of fibrosis
- $\alpha_v\beta_6$ /$\alpha_v\beta_1$ Integrins activate latent TGF-β only in fibrotic tissue
- Systemic TGF-β blockade carries toxicity risks

Selectively blocking TGF-β in fibrotic tissues may provide a low risk, effective antifibrotic approach

Col1a1
Col3a1
Timp1
CTGF
ATX
…

FIBROSIS



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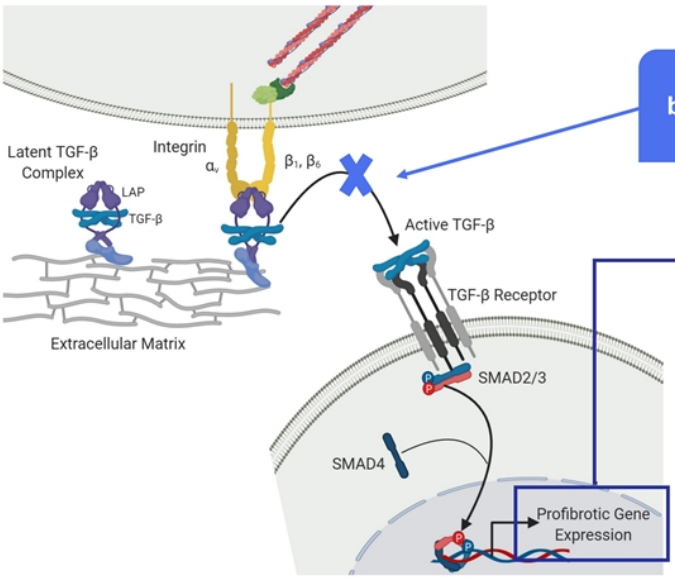
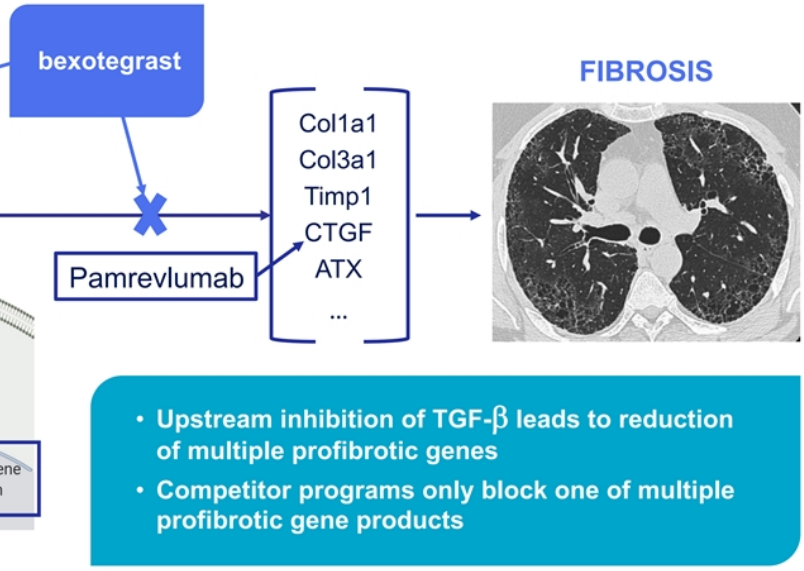
Bexotegrast Provides Profound Antifibrotic Activity Through Upstream Inhibition of TGF-β Activation





- **Upstream inhibition of TGF-β leads to reduction of multiple profibrotic genes**
- **Competitor programs only block one of multiple profibrotic gene products**

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Pliant Compounds Have Not Shown Adverse Effects Typical of Systemic Inhibition of TGF-β Pathways[1]

By targeting integrins that are upregulated specifically in fibrotic tissues, Pliant's small molecule compounds may avoid toxicities associated with systemic TGF-β blockade[1]

Affected organ system	Systemic TGF-β blockade	Observed with Pliant compounds?[1]
Cardiovascular System	Cardiotoxicity	**NO**
Immune System	Autoimmunity/Inflammation	**NO**
GI System	Autoimmunity/Inflammation	**NO**
Skin	Keratoacanthomas/SCC	**NO**
Hematology	Thrombocytopenia/Anemia	**NO**

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1 - Based on preclinical GLP tox studies as well as clinical trials to date.

Bexotegrast Nonclinical Toxicology Studies
No effects of concern for clinical advancement

GLP Study category	Studies completed	Findings with Bexotegrast (PLN-74809)
Repeat Dose Toxicology	• 1-Month IND-enabling NHP and mouse • 3-Month Sub-chronic NHP and mouse • 9-Month Chronic NHP • 6-Month Chronic Mouse	**No findings limiting clinical advancement including** • No pulmonary infiltrates NOAEL[1] in sub-chronic and chronic GLP tox studies at the highest dose tested in NHPs
Safety Pharmacology	• Standard cardiac ion channel panel • Cardiovascular/respiratory in telemetered NHP	**No findings:** • No effect on respiratory or cardiovascular parameters
Genetic Toxicology	• Ames • *In vitro* micronucleus • *In vivo* micronucleus	**No genotoxic findings:** • Ames negative • Micronucleus negative
Reproductive Toxicology	• Mouse Embryofetal Development • Rabbit Embryofetal Development • Mouse Fertility	**No findings:** • No embryofetal effects • No effects on fertility

600+ human subjects dosed to date with no safety concerns identified at doses up to 640 mg

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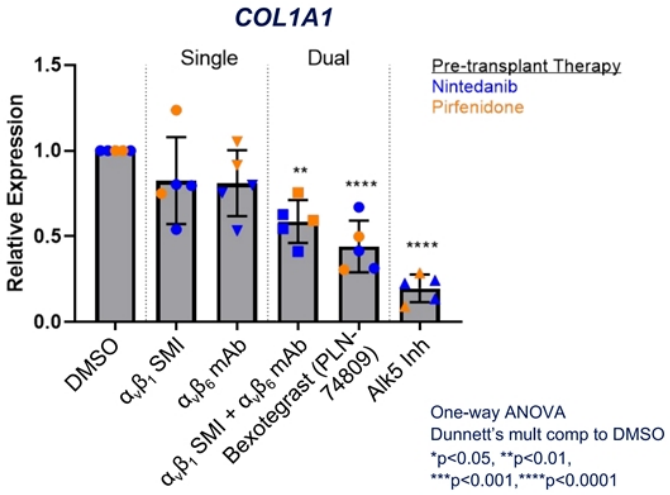
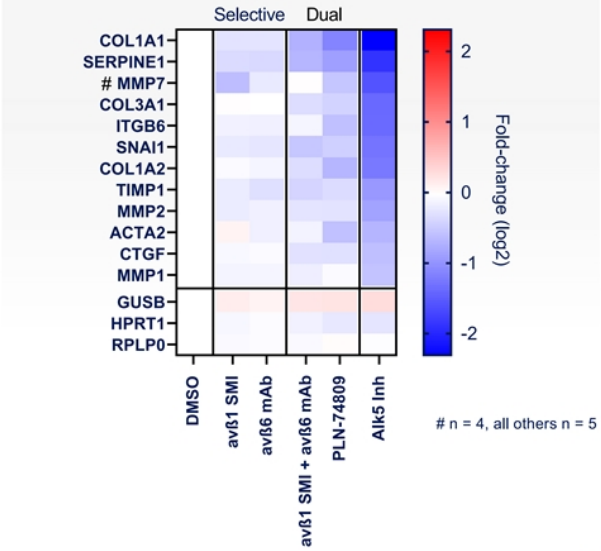
1 – No observed adverse effect level.

Dual $\alpha_v\beta_6/\alpha_v\beta_1$ Inhibition Blocks COL1A1 Gene Expression More than Single Inhibition in Human IPF Tissue

- Ex-planted lungs from 5 IPF patients
- Sliced and cultured for 7 days





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Respiratory Research

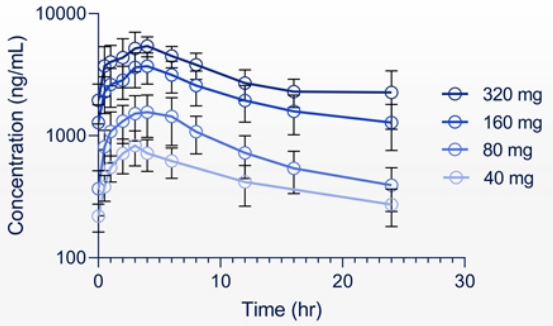
Decaris et al. *Respir Res* (2021) 22:265

Bexotegrast Phase 1a Data Summary
Pharmacokinetics

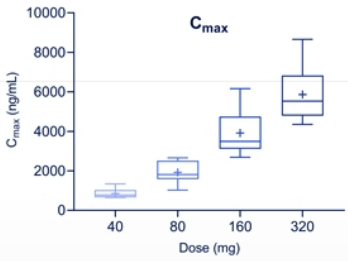
Pharmacokinetics

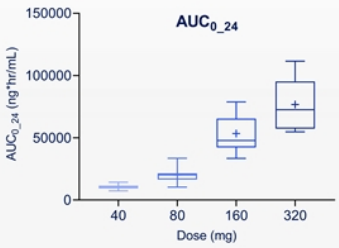
- Well absorbed, orally bio-available
- Long $T_{1/2}$: ~50 hrs – QD dosing

Summary PK Curves by Cohort at Steady State



PK sampling up to 144h; only 0-24hr plotted.
Doses 10mg to 40mg from Study Bexotegrast (PLN-74809)-P1-01, Day 14.
Doses 80mg, 160mg and 320mg from Study Bexotegrast (PLN-74809)-104, Day 7.





Data presented as box plots (max to min) with line at median and + at mean.

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Bexotegrast Phase 1a Data Summary
Safety - Well tolerated in healthy participants

Drug-Related Treatment-Emergent Adverse Events Reported in ≥2 Bexotegrast -Treated Healthy Participants from Seven Phase 1 Studies with Available Safety Data

	Participants, n (%)	
TEAE Preferred Term	Bexotegrast, All doses (n=283)	Placebo (n=52)
	Drug-related	Drug-related
Headache	4 (1.4)	2 (3.8)
Constipation	4 (1.4)	0 (0.0)
Nausea	3 (1.1)	0 (0.0)
Dizziness	2 (0.7)	0 (0.0)
Abdominal pain	2 (0.7)	0 (0.0)
Palpitations	2 (0.7)	0 (0.0)

Most Bexotegrast-related AEs were mild (82%) and none were severe

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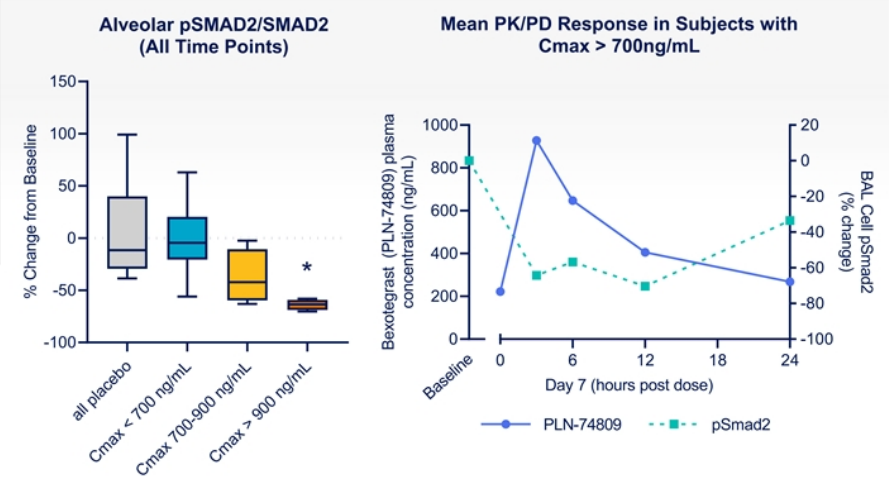
Am J Respir Crit Care Med 2022;205:A2437

Bexotegrast Phase 1b Proof of Biological Mechanism

Strong PK/PD Relationship – C_{max} above IC_{50} Results in Predicted Biological Effect

Data Presented June 2019



Phase 1b Expansion Trial Investigating Higher Doses Data Presented February 2022

- Randomized, double-blind, placebo-controlled
- Treatment duration: 7 days
- BAL samples taken at 6 hours and 24 hours after last dose on day 7

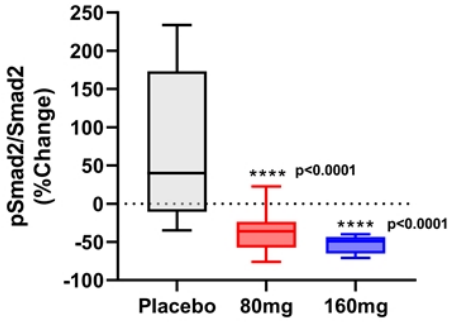
PART 1	PART 2
80 mg once-daily 160 mg once-daily	320 mg once-daily

TGF-β signaling inhibition

* = p < 0.05 vs placebo and Cmax < 700 ng/mL group

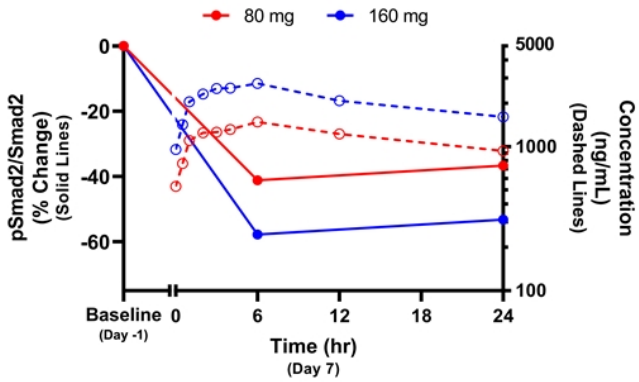
Bexotegrast Demonstrated Significant pSmad2 Suppression Relative to Baseline at 24 Hours

Alveolar pSmad2/Smad2
Percentage Change from Baseline at 24 Hours
(Part 1: 80 mg and 160 mg)



Percent change pSmad2/Smad2 was statistically significant at both doses of Bexotegrast (PLN-74809) vs. placebo (p<0.0001)

Mean PK/PD Response



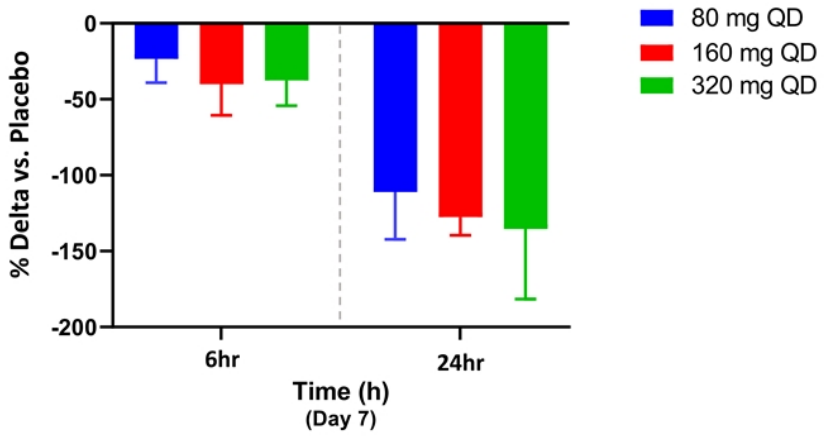
Durable reduction in pSmad2/Smad2 for 24 hours at 80 and 160 mg

Placebo (n=8)
Bexotegrast (PLN-74809)
- 80 mg QD (n=7)
- 160 mg QD (n=8 at 6hrs and n=5 at 24hrs)

BAL – bronchoalveolar lavage; pSmad2/Smad2 – ratio of phosphorylated Smad2 to total Smad2; QD – once daily

Bexotegrast Demonstrated Durable pSmad2 Suppression Relative to Placebo at 6 Hours and 24 Hours at All Dose Levels

pSmad2/Smad2 percentage change from baseline, delta versus placebo in Part 1 and Part 2



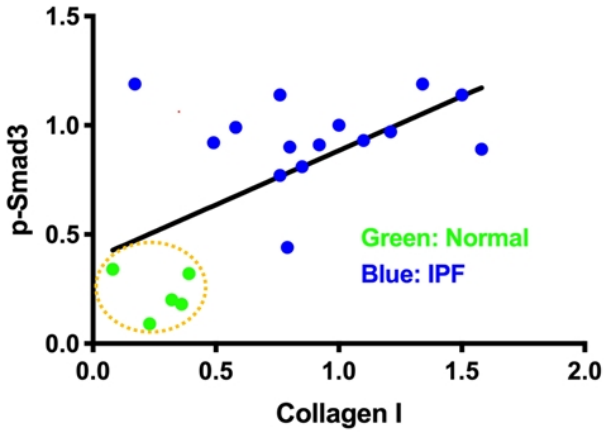
The difference in pSmad2/Smad2 % change was calculated for each treatment value vs. the mean placebo value at each timepoint

Placebo (n=8/4)
Bexotegrast (PLN-74809)
- 80 mg QD (n=7)
- 160 mg QD (n=8 at 6hrs and n=5 at 24hrs)
- 320 mg QD (n=4 at 6hrs and n=5 at 24hrs)

pSmad2/Smad2 – ratio of phosphorylated Smad2 to total Smad2

Tissue pSmad Levels are Highly Significantly Correlated with Extractable Collagen Levels in normal and fibrotic lungs

Reduction in Pulmonary pSmad Appears to Be a Marker for Reduction of Fibrosis



Pearson Correlation: r=0.6004
p (two-tailed) = 0.0051

- Diagnostic open lung biopsies from 10 patients with ILD and suspected IPF
- 2-3 distinct lung regions sampled from each patient
- 5 controls (non-transplanted lungs)
- Total pSmad3 had a strong correlation vs. extractable Collagen I (Western Blot)

Adapted from Chapman HA et al. March 12, 2020; 382:1068-1070

The NEW ENGLAND JOURNAL of MEDICINE

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Putting the Phase 1b pSmad2 Data into Perspective

Durable pSmad2 suppression at all dose levels relative to placebo at 6 hours and 24 hours

Dose- and plasma concentration-dependent response with up to 92% and 76% suppression of pSmad2 from baseline at 6 and 24 hours, respectively

Bexotegrast well tolerated with no serious or severe adverse events

- Bexotegrast inhibits activation of TGF-β, a key molecular driver of fibrosis in the lung, as measured by pSmad2
- Bexotegrast may disrupt the fibrosis pathway and affect disease progression in IPF patients
- De-risks the ongoing Phase 2a INTEGRIS-IPF trial, and future development programs

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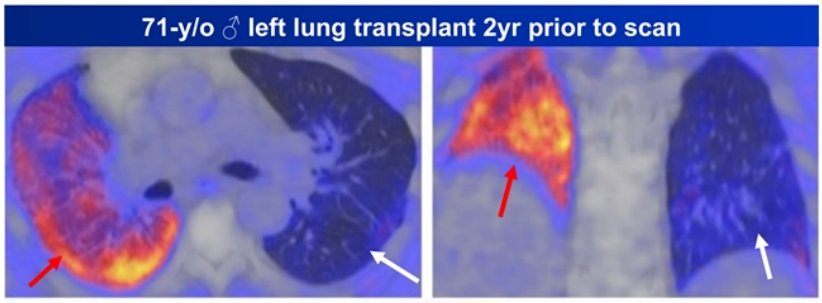
Bexotegrast Phase 2a PET Trial – $\alpha_v\beta_6$ Receptor Occupancy Measured by an $\alpha_v\beta_6$ PET Ligand

TRIAL DESIGN

- Single-site open-label trial at Stanford University
- Adults with IPF diagnosis (n=12) and FVC ≥ 45% of predicted
- Patients receive single oral dose of Bexotegrast with PET scans prior to dosing and at T_{max} post dose
- Dose cohorts being evaluated: 60 mg, 120 mg, 240 mg, and 320 mg

ENDPOINTS

- **Primary**: Evaluation of $\alpha_v\beta_6$ target engagement by bexotegrast assessed by change in PET tracer uptake following a single oral dose
- **Secondary**: Assessment of safety and tolerability of bexotegrast in IPF patients
- **Exploratory**: Relationship between bexotegrast systemic exposure and positron emission tomography (PET) imaging and biomarkers in IPF participants



Kimura et al., *Nature Com*. 2019

PET Ligand Uptake Confined to IPF Lung in Unilateral Lung Transplant Patient

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Stanford University

Phase 2a PET Trial in IPF – Interim Analysis Methodology

- **PET scan acquisitions at baseline (no drug) and after drug administration (4 hours post-dose)**
  - 1 week interval between baseline and post-dose PET scan acquisition
- **Administration of a single dose of bexotegrast: 60 mg – 120 mg – 240 mg – 320 mg**
- **Interim PK and target engagement data from 6 dose administrations in 4 patients**
  - 2 out of 4 patients received one single dose
  - 2 out of 4 patients received two single doses with at least a 2-week washout interval between doses

	60 mg	120 mg	240 mg	320 mg
Patient 1	X			
Patient 2		X	X	
Patient 3			X	X
Patient 4				X

- **All patients on standard of care therapy (nintedanib)**
- **Image analysis for target engagement in highly fibrotic regions of the lungs**

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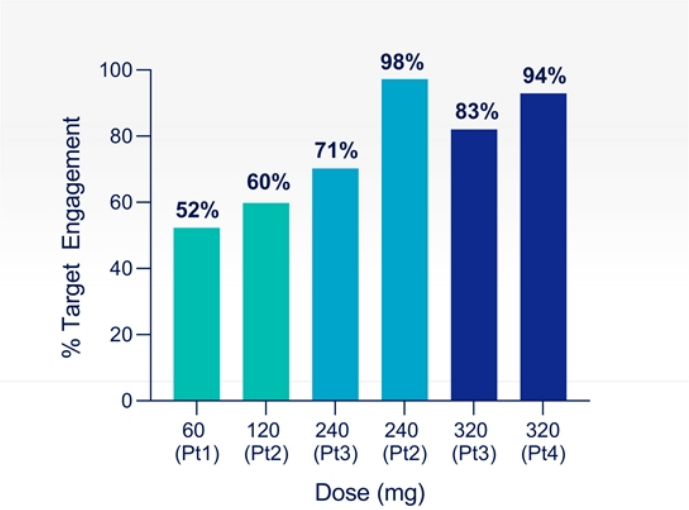
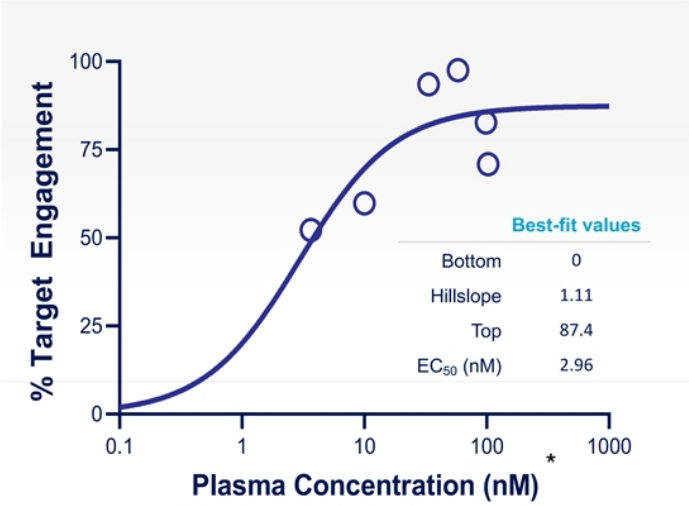
Dose- and Plasma Concentration-Dependent Target Engagement

Dose-Dependent Target Engagement



Plasma Conc-Dependent Target Engagement



* Free plasma concentration

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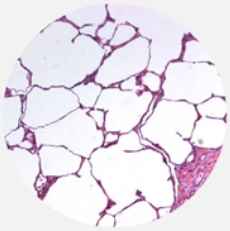
Putting the Interim Phase 2a PET Data into Perspective

Target engagement above the threshold for predicted anti-fibrotic activity across all doses (>50% target engagement)

Dose- and plasma concentration-dependent response approaching target saturation at the two highest doses

- Bexotegrast penetrates highly fibrotic areas of the lung
- Potential anti-fibrotic activity of bexotegrast at clinical doses
- Informs dose selection in Phase 2b trials and beyond
- Provides robust PK/PD model to predict exposure-response relationship

NORMAL LUNG



IPF LUNG

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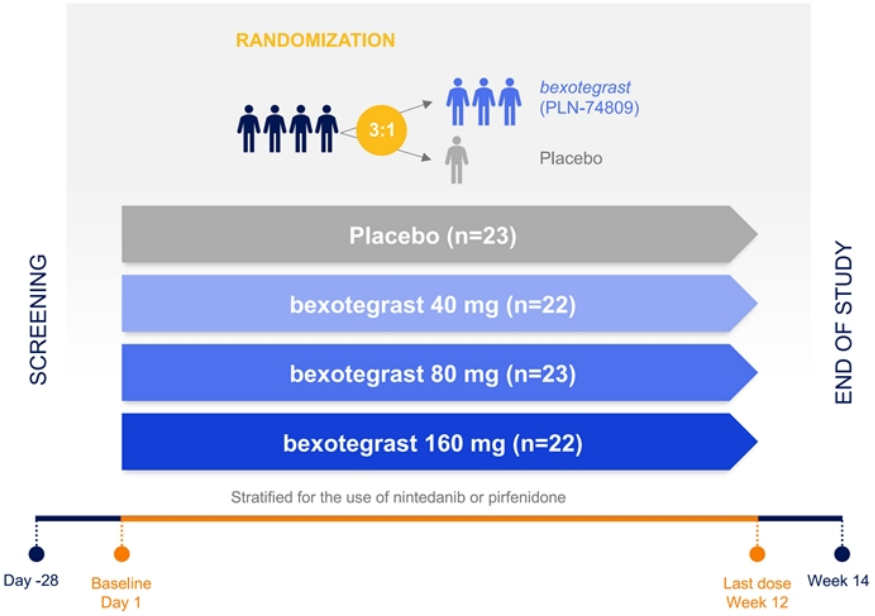
Stanford University

INTEGRIS-IPF Study Design and Objectives



PRIMARY AND SECONDARY ENDPOINTS

- Safety, tolerability, PK

EXPLORATORY ENDPOINTS

- Change in Forced Vital Capacity (FVC) over 12 weeks
- High Resolution CT-based Quantitative Lung Fibrosis (QLF) imaging
- Patient-reported outcome (PRO): VAS-cough severity
- Effect on selected biomarkers

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Executive Summary

Bexotegrast Well Tolerated Over 12 Weeks of Treatment

- Most TEAEs were mild or moderate in severity
- No discontinuations due to adverse events
- No deaths or drug-related SAEs

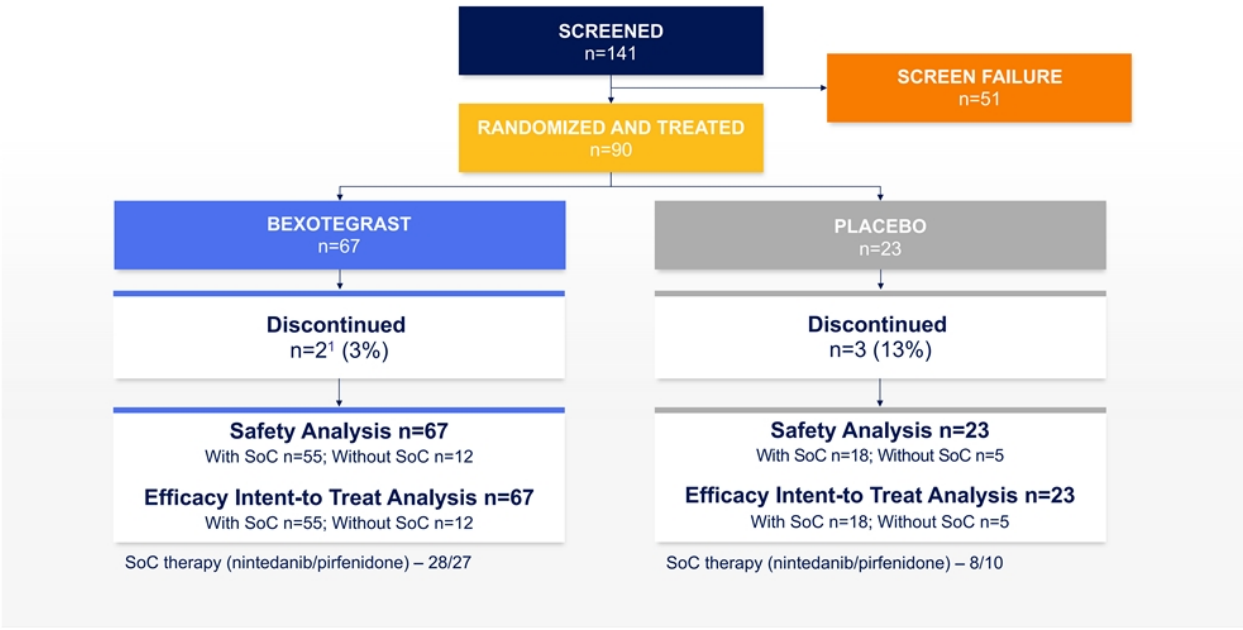
Bexotegrast-Treated Patients Experienced an 80% Reduction in FVC Decline Over 12 Weeks (-15.1 mL, Pooled Active Groups) Compared to Placebo (-74.1 mL)

- Bexotegrast treatment effect was evident with and without use of standard-of-care agents
- An improvement in FVC (+24.6 mL) was observed in bexotegrast 80 mg dose cohort
- Dose-dependent reduction in proportion of patients with percent predicted FVC (FVCpp) decline of ≥10%, a well-established predictor of death and disease progression in IPF

Other Exploratory Endpoints

- Dose-dependent antifibrotic effect seen on QLF Imaging, with no progression in 160 mg group at Week 12
- Bexotegrast decreased serum biomarkers of collagen synthesis (PRO-C3 and PRO-C6) relative to placebo

Participant Disposition



1 - Withdrawal of consent (n=1); Physician decision (n=1)

SoC = Standard of Care

Baseline Demographics

Characteristic	bexotegrast 40 mg (n=22)	bexotegrast 80 mg (n=23)	bexotegrast 160 mg (n=22)	bexotegrast All (n=67)	Placebo (n=23)
Male sex—no. (%)	18 (81.8)	19 (82.6)	16 (72.7)	53 (79.1)	22 (95.7)
Female sex-no. (%)	4 (18.2)	4 (17.4)	6 (27.3)	14 (20.9)	1 (4.3)
Age—yr (SD)	69.2 (7.11)	74.2 (4.70)	71.5 (6.63)	71.7 (6.45)	71.7 (5.61)
Race—no. (%)					
White	22 (100.0)	21 (91.3)	22 (100.0)	65 (97.0)	22 (95.7)
Asian	0	1 (4.3)	0	1 (1.5)	1 (4.3)
Not Reported / Unknown	0	1 (4.3)	0	1 (1.5)	0
Weight—kg, Mean (SD)	86.09 (18.223)	85.89 (14.949)	85.37 (13.507)	85.79 (15.437)	85.23 (10.743)
Body-mass index (kg/m^2), Mean (SD)	27.67 (4.205)	28.54 (5.790)	29.28 (4.663)	28.50 (4.915)	27.43 (2.488)

SD = Standard deviation; BMI = Body Mass Index; FVC = Forced Vital Capacity; DLCO = Diffusing capacity for carbon monoxide; Duration since diagnosis at screening is calculated from the first reported date for preferred terms of Idiopathic Pulmonary Fibrosis,Pulmonary Fibrosis or Interstitial Lung Disease. Percentages are based on the number of participants in the Safety Population by treatment group.

Baseline Disease Characteristics

Characteristic	bexotegrast 40 mg (n=22)	bexotegrast 80 mg (n=23)	bexotegrast 160 mg (n=22)	bexotegrast All (n=67)	Placebo (n=23)
Time since diagnosis of IPF—yr, Mean (SD)	1.78 (0.925)	2.39 (1.422)	2.13 (1.083)	2.10 (1.176)	2.62 (1.378)
Standard of Care Use	17 (77.3)	19 (82.6)	19 (86.4)	55 (82.1)	18 (78.3)
None	5 (22.72)	4 (17.39)	3 (13.63)	12 (17.91)	5 (21.74)
Nintedanib	12 (54.5)	9 (39.1)	7 (31.8)	28 (41.8)	8 (34.8)
Pirfenidone	5 (22.7)	10 (43.5)	12 (54.5)	27 (40.3)	10 (43.5)
Duration of Standard of Care at Randomization (months), Mean, (SD)	19.47 (11.527)	20.21 (11.523)	20.07 (11.632)	19.93 (11.350)	24.12 (17.295)
FVC					
Mean—mL (SD)	2976.5 (861.01)	3128.7 (814.20)	2863.0 (725.39)	2991.5 (797.76)	3211.7 (792.68)
Median—mL	2937.0	2929.0	2702.5	2806.0	3282.0
Percent of predicted value, Mean (SD)	74.81 (14.698)	82.67 (13.471)	78.75 (16.356)	78.80 (14.995)	78.30 (15.859)
Percent of predicted DLCO, corrected for the hemoglobin level, Mean (SD)	57.200 (14.7434)	51.782 (14.6690)	48.615 (15.1082)	52.521 (15.0362)	50.335 (16.2161)
GAP Stage					
GAP Stage I, n (%)	11 (50.0)	8 (34.8)	7 (31.8)	26 (38.8)	7 (30.4)
GAP Stage II, n (%)	10 (45.5)	15 (65.2)	13 (59.1)	38 (56.7)	13 (56.5)
GAP Stage III, n (%)	1 (4.5)	0	2 (9.1)	3 (4.5)	3 (13.0)

SD = Standard deviation; BMI = Body Mass Index;
Duration since diagnosis at screening is calculated from the first reported date for preferred terms of Idiopathic Pulmonary Fibrosis,Pulmonary Fibrosis or Interstitial Lung Disease.
Percentages are based on the number of participants in the Safety Population by treatment group.
GAP Stage I = GAP Index 0-3; GAP Stage II = GAP Index 4-5; GAP Stage III = GAP Index 6-8.
GAP Index score (0-8) derived from Gender, Age, FVC, % Predicted and DLCO, % Predicted.

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Safety summary

AE, n (%) of Participants Reporting	bexotegrast 40 mg (n=22)	bexotegrast 80 mg (n=23)	bexotegrast 160 mg (n=22)	bexotegrast All (n=67)	Placebo (n=23)
Any AEs	16 (72.7)	15 (65.2)	15 (68.1)	46 (68.7)	14 (60.9)
TEAE	16 (72.7)	15 (65.2)	14 (63.6)	45 (67.2)	14 (60.9)
Related to study drug	4 (18.2)	7 (30.4)	4 (18.2)	15 (22.4)	8 (34.8)
Serious TEAE	1 (4.5)	0	2 (9.1)	3 (4.5)	2 (8.7)
Related to study drug	0	0	0	0	0
TEAE of CTCAE Grade 3 or Higher	2 (9.1)	0	2 (9.1)	4 (6.0)	1 (4.3)
Related to study drug	0	0	1 (4.5)	1 (1.5)	0
TEAE Leading to Interruption of Study Drug	0	0	1 (4.5) [1]	1 (1.5) [1]	0
TEAE Leading to Withdrawal of Study Drug	0	0	0	0	2 (8.7)
TEAE Leading to Early Termination from Study	0	0	0	0	1 (4.3)
TEAE Leading to Death	0	0	0	0	0

1 – COVID-19
AE = Adverse Event; TEAE = Treatment Emergent Adverse Event; SAE = Serious Adverse Events. Adverse events coded using MedDRA v. 24.0.
TEAE is defined as any AE starting (or worsening) on or after the date of first dose.

Safety Summary by SOC use in Pooled Bexotegrast Groups

	Without Background SOC (N=17)		With Background SOC (N=73)	
AE, n (%) of Participants Reporting	**bexotegrast (n=12)**	**Placebo (n=5)**	**bexotegrast (n=55)**	**Placebo (n=18)**
Any AEs	8 (66.7)	3 (60.0)	38 (69.1)	11 (61.1)
TEAE	8 (66.7)	3 (60.0)	37 (67.3)	11 (61.1)
Related to study drug	2 (16.7)	2 (40.0)	13 (23.6)	6 (33.3)
Serious TEAE	0	0	3 (5.5)	2 (11.1)
Related to study drug	0	0	0	0
TEAE of CTCAE Grade 3 or Higher	0	0	4 (7.3)	1 (5.6)
Related to study drug	0	0	1 (1.8)	0
TEAE Leading to Interruption of Study Drug	1 (8.3)	0	0	0
TEAE Leading to Withdrawal of Study Drug	0	1 (20.0)	0	1 (5.6)
TEAE Leading to Early Termination from Study	0	1 (20.0)	0	0
TEAE Leading to death	0	0	0	0

TEAE = Treatment Emergent Adverse Event; SAE = Serious Adverse Events. Adverse events coded using MedDRA version 24.0.
TEAE is defined as any AE starting (or worsening) on or after the date of first dose.
SOC = standard of care, nintedanib or pirfenidone

Most Frequent TEAEs – Any Causality

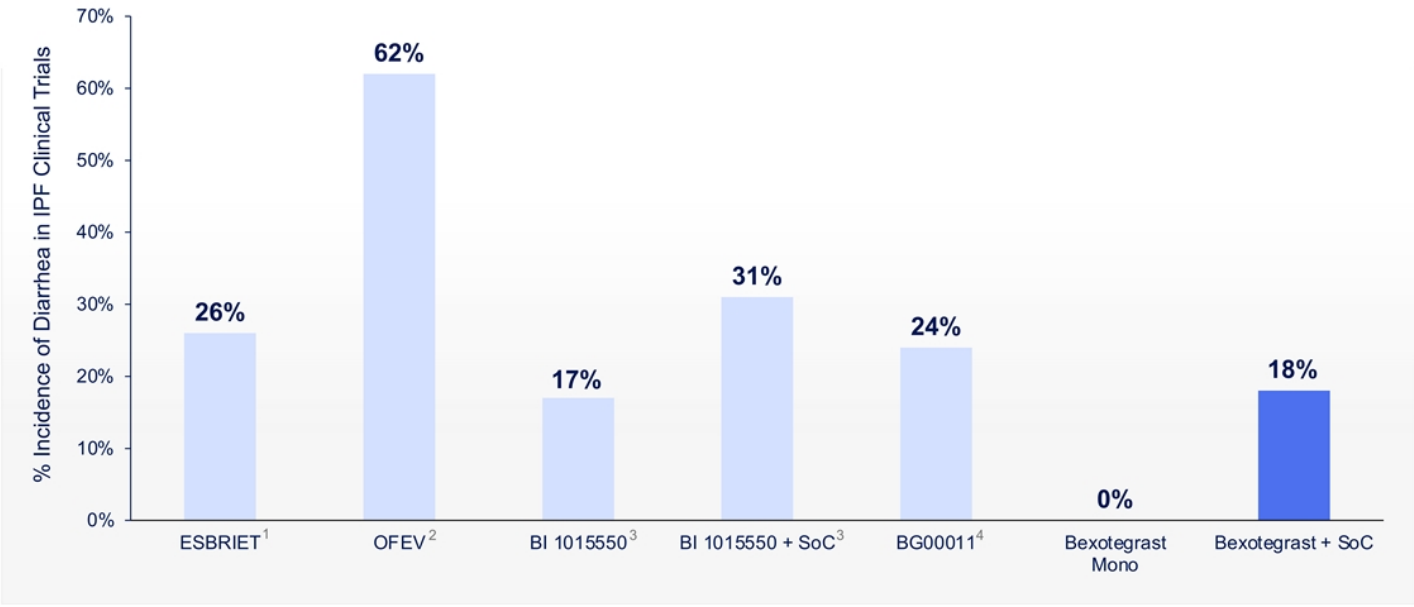
AE, n (%) of Participants Reporting	bexotegrast 40 mg (n=22)	bexotegrast 80 mg (n=23)	bexotegrast 160 mg (n=22)	bexotegrast All (n=67)	Placebo (n=23)
Most frequent TEAEs (≥ 10% in at least one arm)					
Diarrhea	2 (9.1)	5 (21.7)	5 (22.7)	12 (17.9)	1 (4.3)
– Related to study drug	1 (4.5)	3 (13.0)	4 (18.2)	8 (11.9)	1 (4.3)

All TEAEs of Diarrhea Occurred in Patients on Standard of Care

- 12 of 13 participants with diarrhea were taking nintedanib
- All but one event were mild to moderate in severity
- Diarrhea infrequently reported in bexotegrast Phase 1 trials

TEAE = Treatment Emergent Adverse Event; SAE = Serious Adverse Events. Adverse events coded using MedDRA version 24.0.
TEAE is defined as any AE starting (or worsening) on or after the date of first dose

Incidence of Diarrhea in IPF Randomized Clinical Trials



[1]ESBRIET USPI, [2] OFEV USPI, [3] Richeldi et al, 2022, [4] Raghu et al, 2022

No Treatment-Emergent SAEs were Related to Study Drug

Treatment Group	Preferred term	Standard toxicity grade	Any alternative cause or confounding factors?	Action taken	Outcome
bexotegrast 40 mg	Acute respiratory failure	Grade 3 (Severe)	No	Dose not changed	Recovered / Resolved
	Pneumonia	Grade 2 (Moderate)	Removed carpet from home without a mask	Dose not changed	Recovered / Resolved
bexotegrast 160 mg	Idiopathic pulmonary fibrosis	Grade 3 (Severe)	Underlying disease and atrial fibrillation	Not applicable - hospitalization	Not Recovered / Not Resolved
bexotegrast 160 mg	Atrial flutter	Grade 3 (Severe)	Underlying disease	Not applicable - hospitalization	Recovered / Resolved
Placebo	Bladder dilatation	Grade 2 (Moderate)	No	Dose not changed - Foley catheter placed	Recovered / Resolved with Sequelae
Placebo	Respiratory failure	Grade 3 (Severe)	Coronary artery disease with triple vessel disease	Not applicable - early termination from the study	Recovered / Resolved with sequelae

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Adverse events coded using MedDRA version 24.0

Incidence of Acute Exacerbations in Recent Phase 2 IPF Randomized Clinical Trials

Investigational agent	Trial phase	Trial duration	Proportion of participants with acute exacerbation of IPF
Bexotegrast	2a	12 weeks	Active, 1.5% (n=1/67) Placebo, 0% (n=0/23)
BG00011	2b [1]	52 weeks (prematurely terminated)	Active, 17% (n=9/54) Placebo, 0% (n=0/52)
BG00011	2a [2]	8 weeks	Active, 16% (n=5/31) Placebo, 0% (n=0/10)
Pamrevlumab	2b [3]	48 weeks	Active, 10%* (n= 5/50) Placebo, 13%* (n=7/53)
Pentraxin 2	2b [4]	24 weeks	Active, 1.3% (n=1/77) Placebo, 2.6% (n=1/39)
BI 1015550	2b [5]	12 weeks	Active, 1% (n=1/97) Placebo, 0% (n=0/50)
GLPG1690	2a [6]	12 weeks	Active, 0% (n=0/17) Placebo, 0% (n=0/6)

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* Acute exacerbations for pamrevlumab not specifically described; includes all adverse event related to IPF or respiratory in nature

[1] Raghu et al, 2022; [2] Raghu et al, 2022; [3] Richeldi et al, 2019; [4] Raghu et al, 2018; [5] Richeldi et al, 2022; [6] Maher et al, 2018

Safety Evaluation – Conclusions

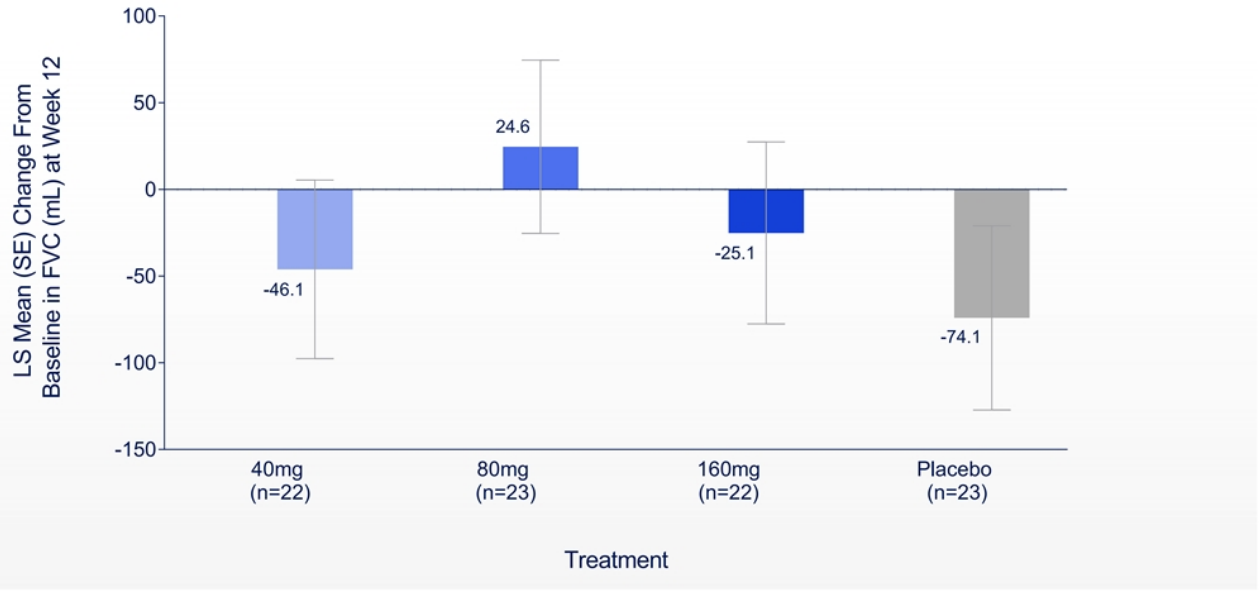
- Bexotegrast was well tolerated with no dose relationship for adverse events
- No deaths or treatment related SAEs
- No participants discontinued bexotegrast due to TEAE
- Most frequent TEAE seen was diarrhea, but only seen in patients on standard of care

Pharmacokinetic Evaluation

- Based on sparse sampling, overall, bexotegrast pharmacokinetics and % unbound in IPF consistent with that of previous studies
- Concentrations in IPF participants increased approximately proportionally with dose
- Overall % unbound was ~0.3 to 0.5%
- Full PK curve will be predicted using population PK model to project AUC_{0_24} and C_{max}

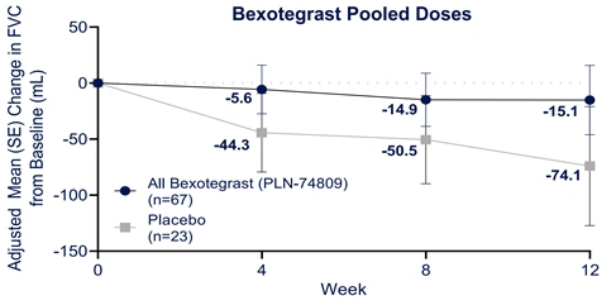
PLIANT

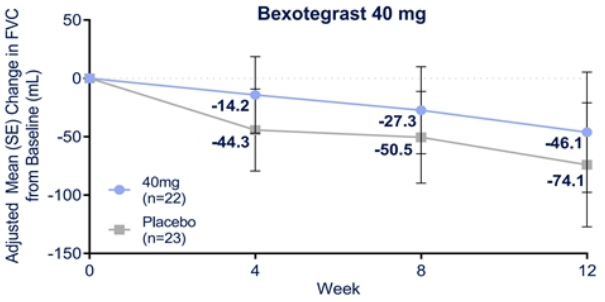
Change in FVC from Baseline to Week 12
MMRM analysis - ITT population

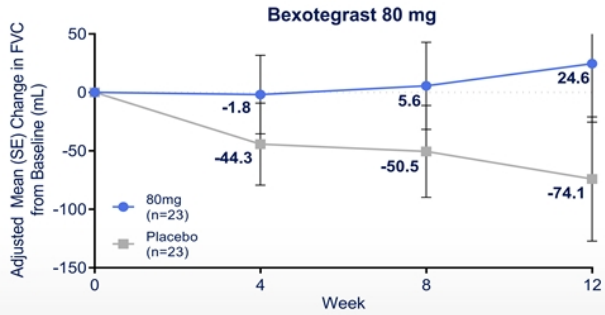


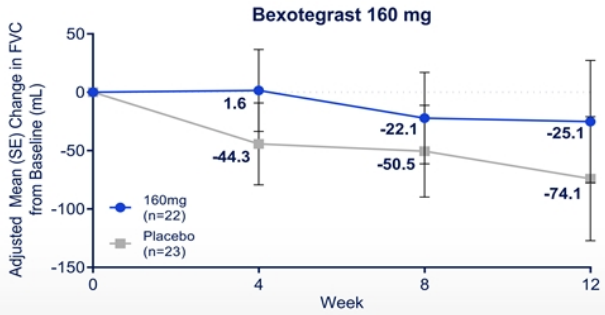
Change from baseline analyzed using a mixed model for repeated measures with terms for treatment group, SOC (Y/N), visit, baseline value, and treatment-by-visit interaction. An unstructured covariance (UN) structure was used.

Change in FVC over 12 weeks in INTEGRIS-IPF
MMRM analysis - ITT population





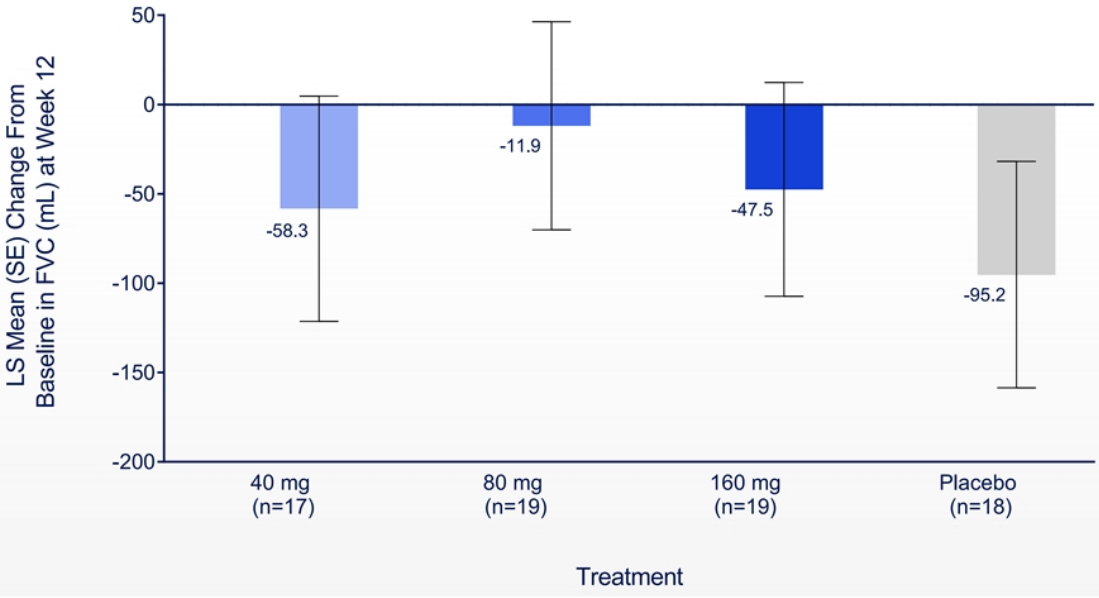




FVC = Forced Vital Capacity
MMRM = Mixed Model Repeat Measures.

Change in FVC from Baseline to Week 12 in On SoC Subgroup

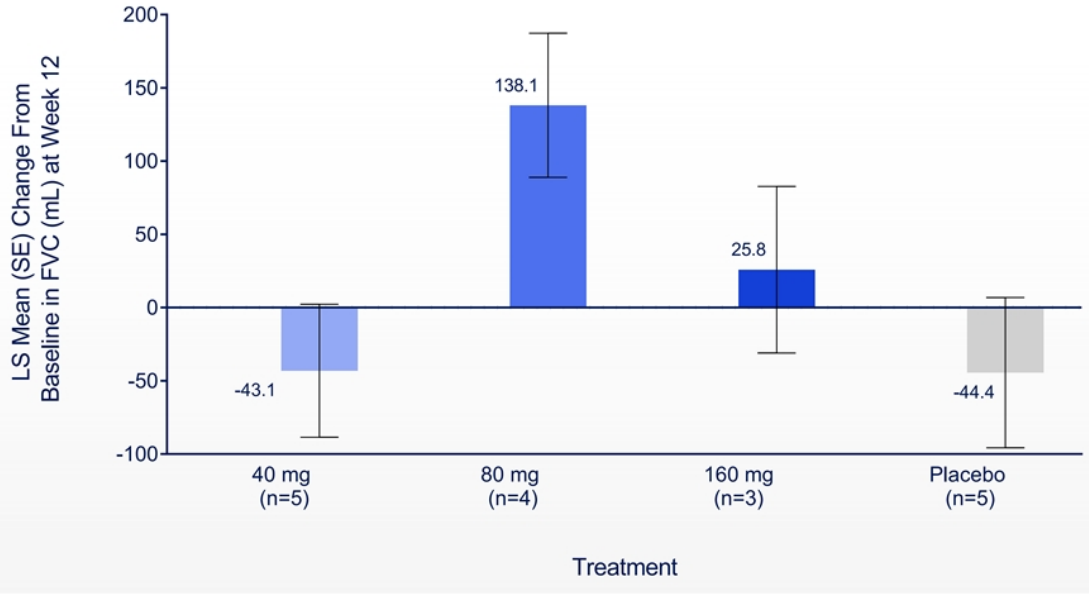
MMRM analysis - ITT population



Change from baseline analyzed using a mixed model for repeated measures with terms for treatment group, SOC (Y/N), visit, baseline value, and treatment-by-visit interaction. An unstructured covariance (UN) structure was used. FVC = Forced Vital Capacity

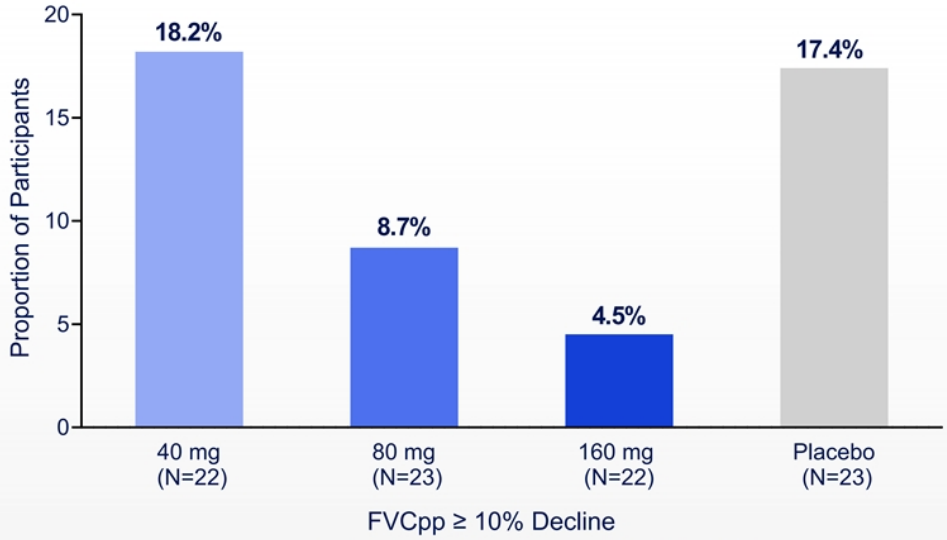
Change in FVC from Baseline to Week 12 in not on SoC Subgroup

MMRM analysis - ITT population



Change from baseline analyzed using a mixed model for repeated measures with terms for treatment group, SOC (Y/N), visit, baseline value, and treatment-by-visit interaction. An unstructured covariance (UN) structure was used. FVC = Forced Vital Capacity

Proportion of Participants with FVCpp Decline ≥ 10%
ITT population



FVCpp ≥ 10%: strong predictor of disease progression and mortality[1]

FVCpp = Forced vital capacity, percent predicted

[1]Ann Am Thorac Soc. 2017 Sep;14(9):1395-1402.

Forced Vital Capacity (FVC) Evaluation – Conclusions

Bexotegrast -treated participants experienced a benefit in FVC change from Baseline to Week 12 (-15.1 mL for pooled bexotegrast group) compared to those on placebo (-74.1 mL)[1]

Bexotegrast treatment effect was evident with and without use of standard of care

Bexotegrast 80 mg dose demonstrated an improvement in FVC (+24.6 mL)

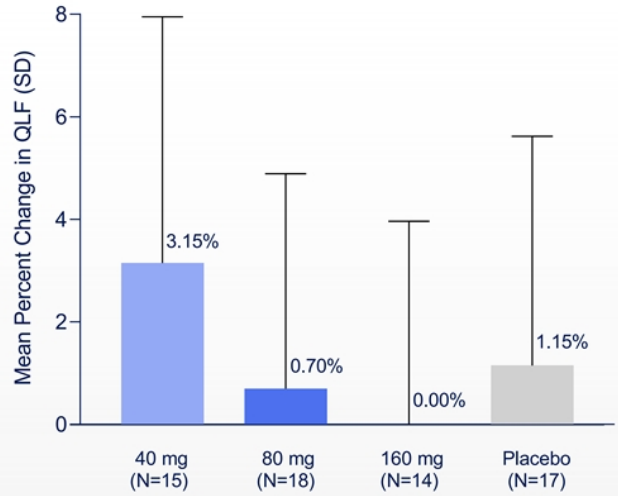
Dose-dependent reduction in proportion of participants with FVCpp decline of ≥ 10%

PLIANT

[1] MMRM analysis ITT population

Mean Percent Change in QLF Extent from Baseline to Week 12

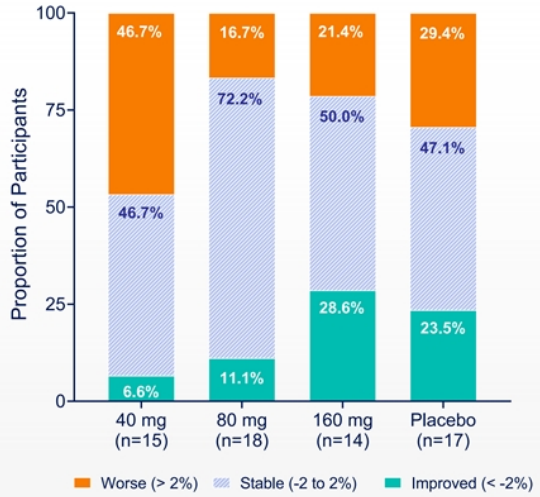
CT protocol population within screening window



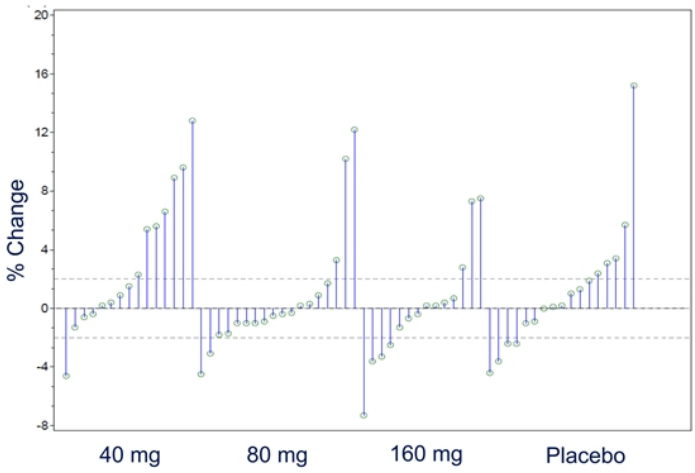
QLF = quantitative lung fibrosis

Mean Percent Change in QLF Extent from Baseline to Week 12
CT protocol population

Proportion of Participants with "Improved", "Stable" or "Worse" QLF Score at 12 Weeks



Drop Line Plot of Change in Individual QLF Scores at Week 12 for Bexotegrast and Placebo Groups



QLF = quantitative lung fibrosis

Quantitative Lung Fibrosis Evaluation – Conclusions

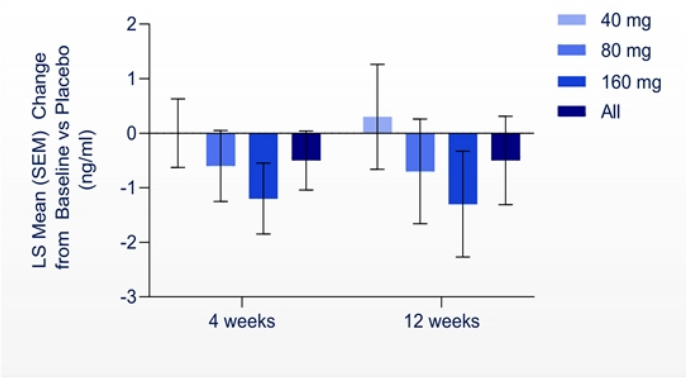
Dose-dependent antifibrotic effect as evidenced by QLF Imaging

No progression in 160 mg group at Week 12 based on mean change from baseline

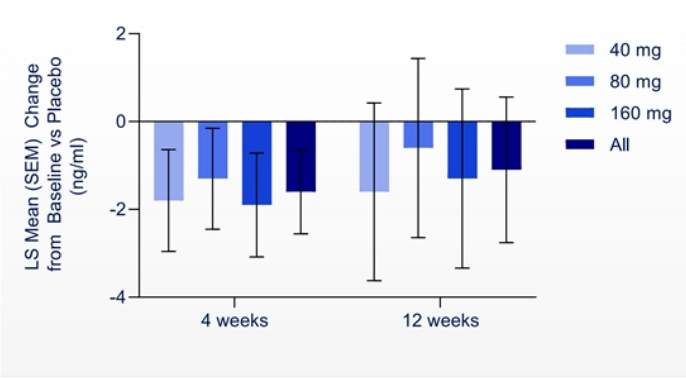
Higher proportion of participants remained stable or improved in the 80 mg and 160 mg groups versus placebo

Serum Biomarkers of Collagen Synthesis were Reduced in Participants Receiving Bexotegrast (Change from Baseline after 4- and 12-weeks vs Placebo)

PRO-C3
Type III collagen synthesis neoepitope



PRO-C6
Type VI collagen synthesis neoepitope



PRO-C3 and PRO-C6, serum biomarkers of type III and VI collagen synthesis, respectively, have previously been shown to be elevated in patients with IPF and associated with progressive disease (Organ et al Respir Res 2019)

Change from baseline analyzed using a mixed model for repeated measures with terms for treatment group, visit, baseline value, and treatment-by-visit interaction.
LS = Least Squares; SE = Standard Error

Conclusion and Next Steps

- Results from the INTEGRIS-IPF trial exceeded our expectations showing a favorable safety and tolerability profile and a treatment effect on FVC and QLF

  Importantly, the fact the treatment effect was also observed on top of standard of care therapy gives us confidence that bexotegrast has the potential to advance the treatment of IPF

- Pliant completed enrollment of the 320 mg cohort of the INTEGRIS-IPF Phase 2a trial in 2Q 2022. Interim data (12 weeks) from this trial is anticipated in early 2023. Final data (24+ weeks) is anticipated in 2Q 2023

- Pliant plans to initiate a Phase 2b trial in patients with IPF in mid-2023

Bexotegrast Phase 2a 320 mg Dose Global Safety-PK-Exploratory Efficacy Trial in IPF

Enrollment Complete; 12-Week Interim Data Expected in Early First Quarter 2023

KEY INCLUSION/EXCLUSION CRITERIA

- Adults with IPF diagnosis
- FVC ≥ 45% of predicted
- Stratified for pirfenidone or nintedanib use

Randomization 3:1 (bexotegrast :placebo)

- Placebo (n=7)
- bexotegrast 320 mg (n=21)

PRIMARY AND SECONDARY ENDPOINTS

- Safety, tolerability, PK

EXPLORATORY ENDPOINTS

- Change in FVC at wk 24 and up to 48 wks
- High Resolution CT-based Quantitative Lung Fibrosis (QLF) imaging
- Effect on selected biomarkers

*Trial will complete once the last trial participant enrolled reaches 24 weeks of treatment

Bexotegrast INTEGRIS-PSC – Phase 2a Global Safety-PK-Fibrosis and Cholestasis Biomarker Trial in PSC

Data Expected in the Third Quarter of 2023

KEY INCLUSION/EXCLUSION CRITERIA

- Adults with large duct PSC
- Pre-cirrhotic/no hepatic impairment
- Stratified for UDCA use

Randomization 3:1 (bexotegrast :placebo)

- Placebo (n=21)
- bexotegrast 40 mg (n=21)
- bexotegrast 80 mg (n=21)
- bexotegrast 160 mg (n=21)

PRIMARY AND SECONDARY ENDPOINTS

- Safety, tolerability, PK

EXPLORATORY ENDPOINTS

- Effect on fibrosis biomarkers (e.g., Pro-C3, ELF)
- Change in ALP over 12 weeks
- Imaging

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PLN-101095

Dual Selective $\alpha_V\beta_8$ / $\alpha_V\beta_1$ Integrin Inhibitor

Reprograming the Immunosuppressive Tumor Micro-Environment of Solid Tumors

Potential First-in-Class Small Molecule Dual $\alpha_V\beta_8$ / $\alpha_V\beta_1$ Inhibitor

$\alpha_V\beta_8$ Biology	Pharmacology	Differentiation	Development Status
$\alpha_V\beta_8$ regulates **TGFβ** activation with a central role in immune suppression in cancer	Highly selective inhibitor of $\alpha_V\beta_8$ & $\alpha_V\beta_1$ Supports human dose projections and **high target coverage** Compelling rationale for $\alpha_V\beta_8$ combination therapy with **PD-(L)1**	**Dual mode of action targeting** T cells $\alpha_V\beta_8$ & Fibroblasts $\alpha_V\beta_1$ **PO Dosing**	No major findings in 28D GLP rat & dog toxicology studies IND submitted Q4 2022 FIH study to start 2Q 2023

Substantial opportunity for an oral medicine **targeting TGFβ activation** in ICI resistance **via $\alpha_V\beta_8$**

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Pliant's Approach to Addressing Immune Checkpoint Inhibitor Resistance

Common Mechanisms of I-O Resistance	Pliant's Approach
Tumor-specific IFNγ levels at baseline predict pembrolizumab responses [4,5]	Potently inhibit general immunosuppressive immune checkpoint to restore CD8 T cell IFNγ secretion
Immunosuppressive stroma / myeloid compartment associated with active TGFβ signaling predicts atezolizumab responses [3]	Prevent both free and latent-TGFβ signaling from major integrin sources found in solid tumors
Tumor infiltrating lymphocytes highly sensitive to TGFβ immunosuppression [e.g.1,2]	Dual mechanism significantly increases quantity of TILs and increase resistance to exhaustion

Dual inhibition of $\alpha_V\beta_8$ & PD-1 exploit unexpected synergistic pathways leading to enhanced tumor killing[6]

[1] TGFb directly targets cytotoxic T cells in cancer, DOI 10.1016/j.ccr.2005.10.012; **[2]** TGFb induces exhaustion in memory T cells, doi:10.1038/leu.2014.84; **[3]** TGFb attenuates PDL1 responses, doi:10.1038/nature25501 **[4]** IFN-γ–related mRNA profile predicts clinical response to PD-1 blockade, https://doi.org/10.1172/JCI91190; **[5]** Pancancer analysis reveals associations with pembrolizumab sensitivity, https://doi.org/10.1038/s41467-021-25432-7; **[6]** Larrick J et al., DOI: https://doi.org/10.21203/rs.3.rs-1778271/v1

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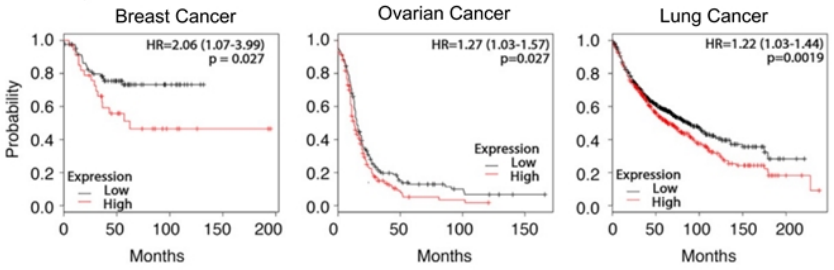
High ITGB8 on Tumor or T cells Has Poor Prognosis

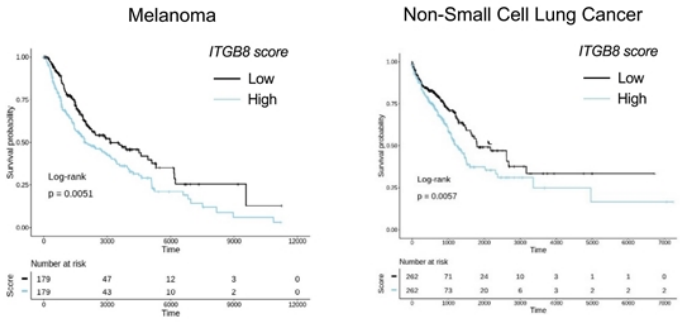
High ITGB8 expression on tumor cells has a worse clinical prognosis

Takasaka N. et al. *JCI Insight 2018;3*
doi 10.1172/jci.insight.122591



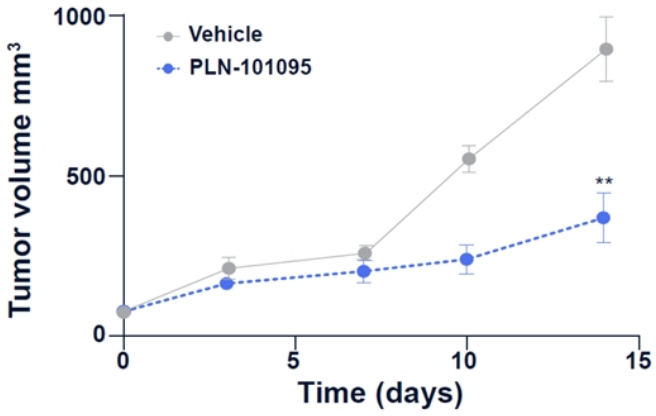
High ITGB8 score on infiltrating T cells correlates with worse prognosis

Lainé A., *Nat Commun* **12**, 6228 (2021)
doi: 10.1038/s41467-021-26352-2

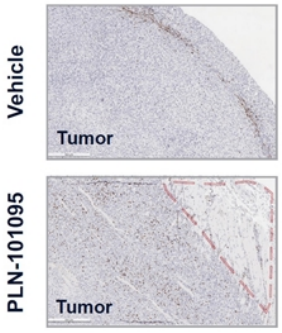


PLN-101095 Inhibited Tumor Growth and Promoted T cell Infiltration in the EMT6 Model

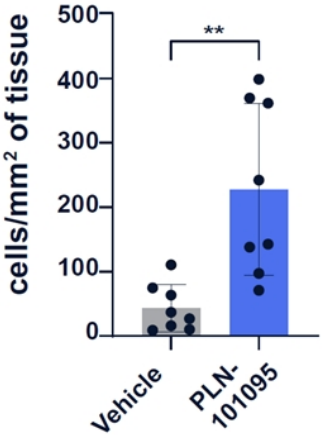
Tumor Growth Inhibition in EMT6 Tumors



CD8+ T Cells

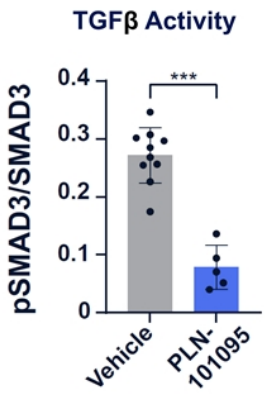


CD8+ T Cells

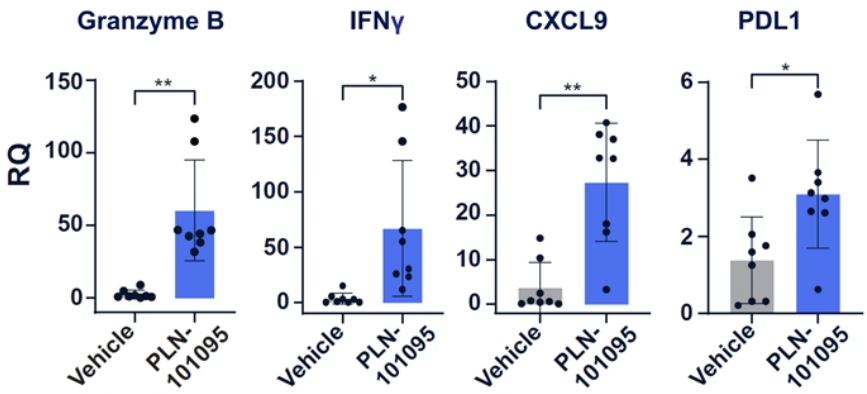


Single Agent PLN-101095 Promoted T Cell Infiltration

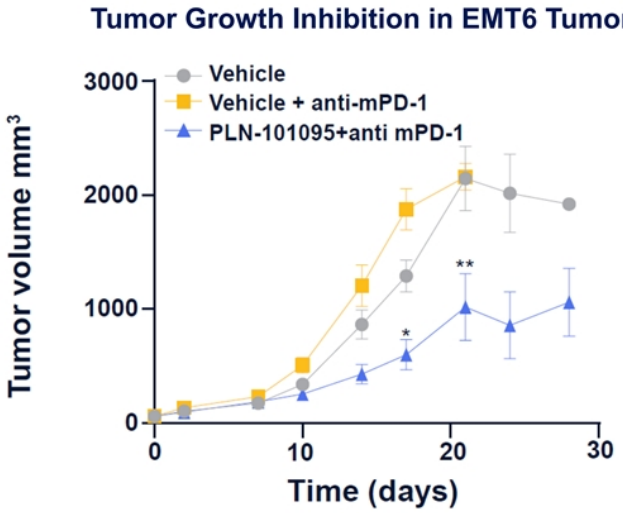
Reduced TGF-β Signaling

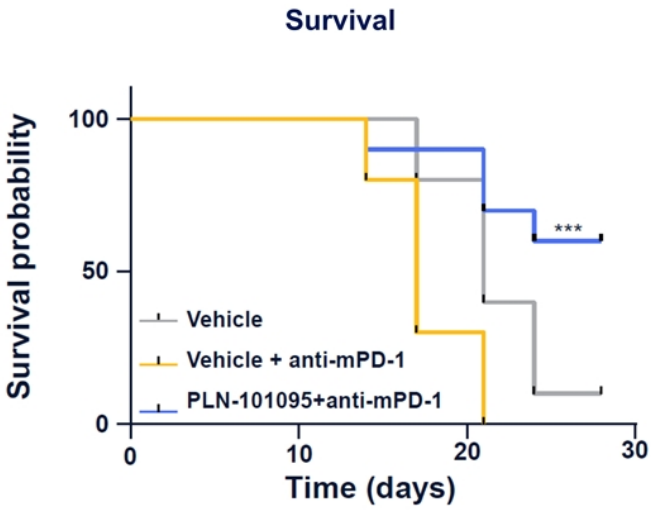


Increased Expression of IFNγ-Regulated Genes



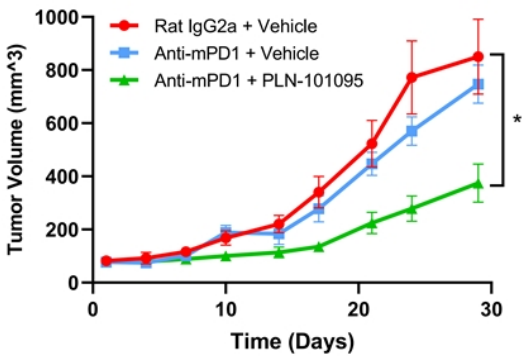
PLN-101095 Plus αPD-1 Demonstrated High Tumor Growth Inhibition in EMT6 Syngeneic Mouse Model



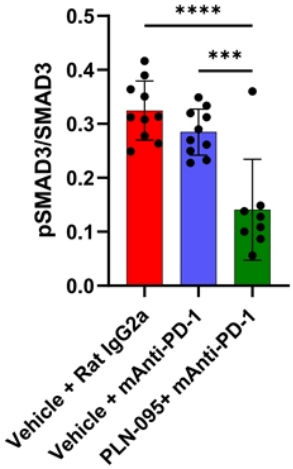


PLN-101095 Inhibited Pan02 Tumor Growth & Increases T cell Infiltration

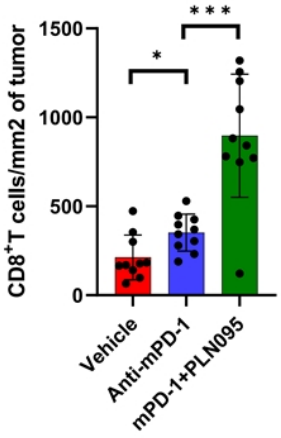
Tumor Growth Inhibition in Pan02 Tumors



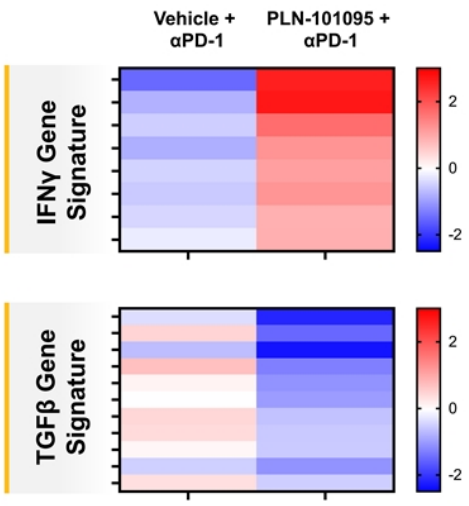
TGFβ Signaling

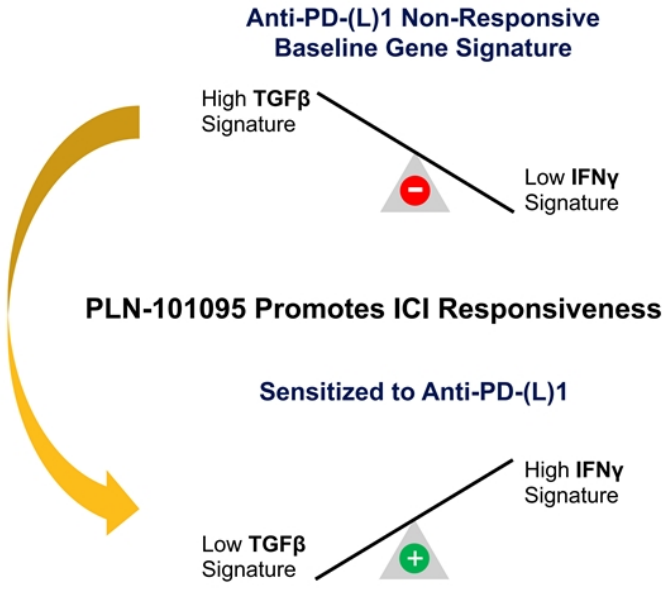


CD8⁺ T Cells



PLN-101095 Potently Increased IFNγ Signature & Reduces TGFβ Gene Signatures





PLN-101095 Nonclinical Safety Studies
No Effects of Concern for Clinical Advancement

Study Category	Studies Completed	Findings with PLN-101095
Repeat Dose Toxicology	• 14-day DRF in rat • 7-day DRF in dog • GLP 1-Month IND-enabling rat • GLP 1-Month IND-enabling dog	• **No adverse findings** in rat or dog DRF • All doses tolerated • **NOAEL[1] set at highest dose**
Safety Pharmacology	• GLP hERG • Safety44	• **No findings**
Genetic Toxicology	• GLP Ames • GLP In vitro micronucleus	• **No findings**

1 – No observed adverse effect level.

Key Program Highlights

- **Oral route** of administration of small molecule $\alpha_V\beta_8$ inhibitor
- **Highly potent** dual inhibitor of $\alpha_V\beta_8$ / $\alpha_V\beta_1$ inhibitor
- **Activity** demonstrated in multiple **PD-1 resistant** tumor models
- **Greater reduction** in **TGF-β signaling** than either $\alpha_V\beta_8$ or TGF-$\beta_{1,2}$ mAb
- **Significant reduction** in tumor **fibrogenesis**
- **IND submitted for** PLN-101095 at **year-end 2022**

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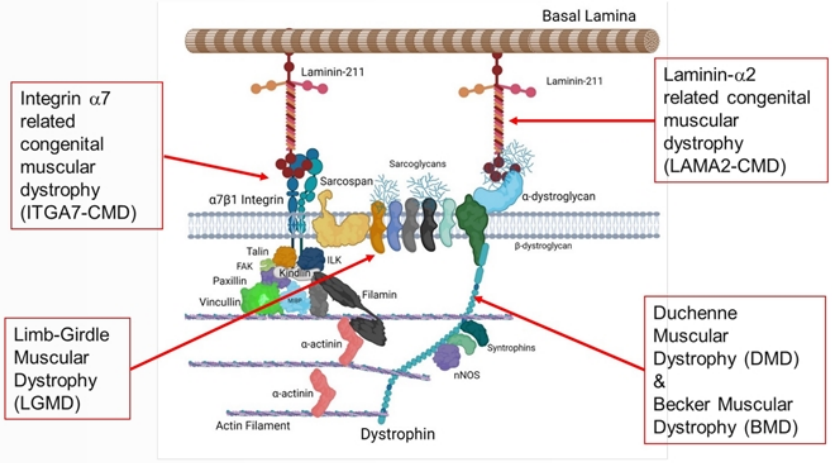
Selective Muscle Cell Integrin Agonism for the Treatment of Muscular Dystrophies

$\alpha_7\beta_1$: A Drug Target in Muscular Dystrophies

- Predominantly expressed in skeletal, heart and smooth muscle
- $\alpha_7\beta_1$ strong genetic modifier in MDX mice
  - Lack of $\alpha_7\beta_1$ worsens disease phenotype
  - Over expression increases survival and improves function
    - Pharmacological agents that increase expression show similar effects
- Human mutations in $\alpha_7\beta_1$ result in congenital MD
- ITGA7 frameshift (heterozygous, nonfunctional mutation is associated with lean muscle volume reduction (UK Biobank)

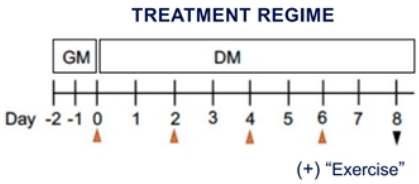


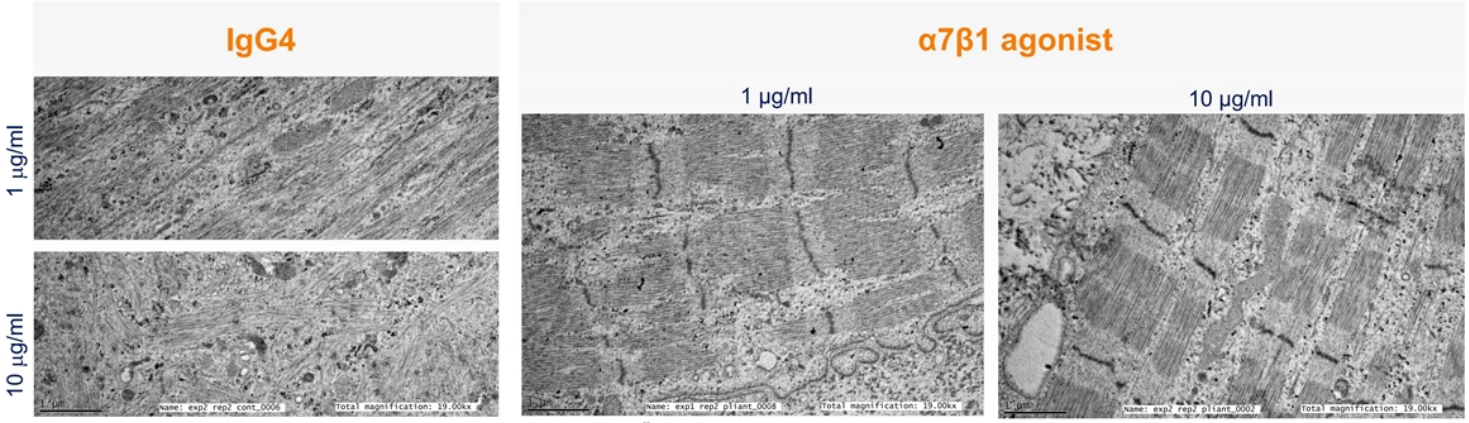
Dean J Burkin, PhD and Ryan Wuebbles, PhD
Generated using BioRender

J Cell Bio 2001, *Human Gen Ther* 2015, *Molecular Therapy* 2017

Integrin $\alpha_7\beta_1$ Agonist Antibody Promoted Muscle Maturation

AB1071 hMMTs treated with 1 ug/ml or 10 ug/ml
Pliant antibody contain myotubes with substantially improved sarcomere organization that can withstand tetanic stimulation compared to IgG4 control



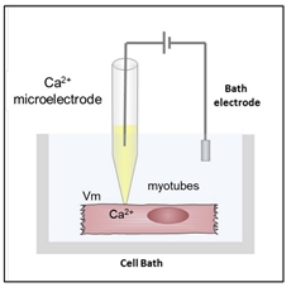


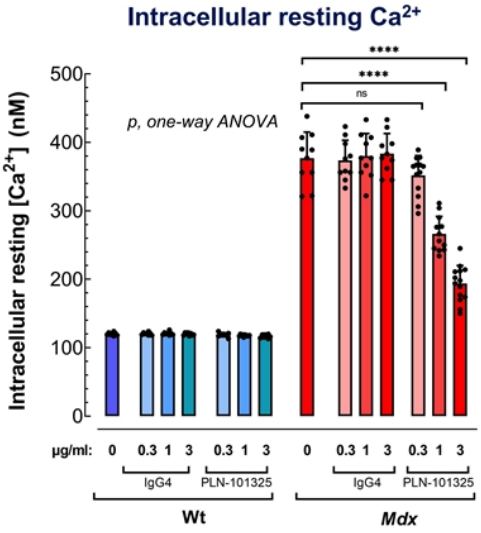
PLIANT

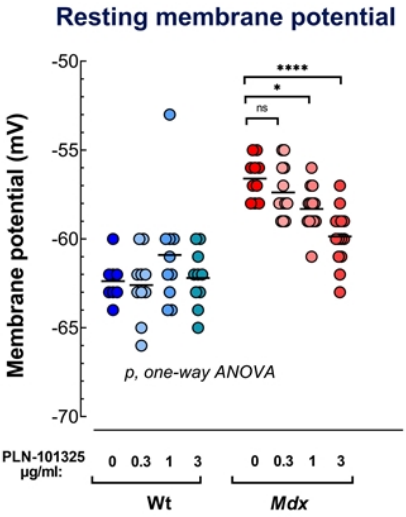
Institute of Biomedical Engineering
UNIVERSITY OF TORONTO

Effect of PLN-101325 in Ca2+ Homeostasis and Resting Membrane Potential of B10-mdx Myotubes

Reduced intracellular resting calcium and hyperpolarization of the membrane potentially support improved plasmalemmal integrity by PLN-101325







Dr. Jose R. Lopez

Mount Sinai MEDICAL CENTER

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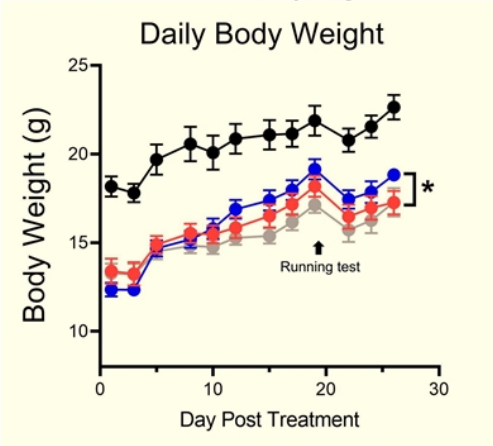
Body Weight Improvement at 4 and 12 Weeks of Treatment

- PLN-101325 3x/ wk IP
- 5-6 wk old D2-MDX mice

4-week

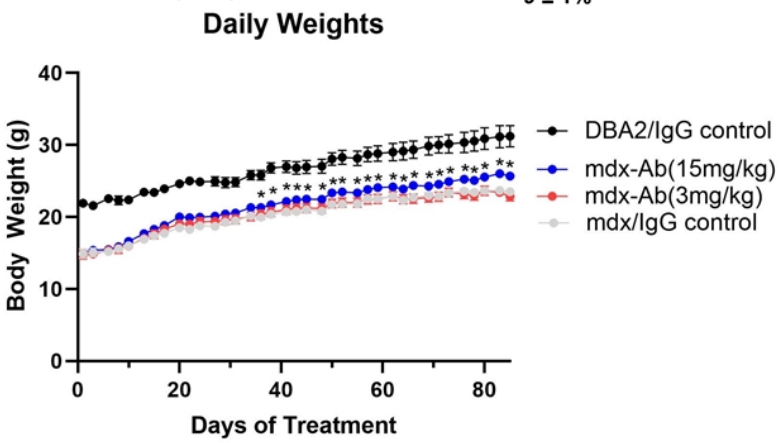
8 ± 3% Increase in Body Weight



12-week

9 ± 1% Increase in Body Weight

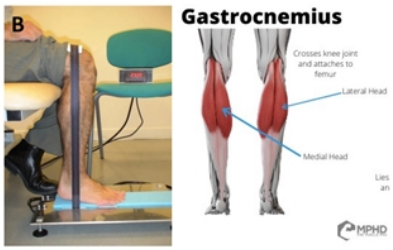
Weight Increase 9 ± 1%



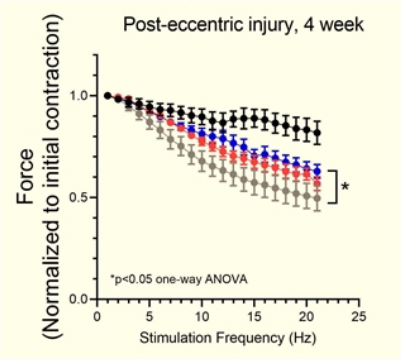
Improved Response to Post Eccentric Injury at 4 and 12 Weeks of Treatment

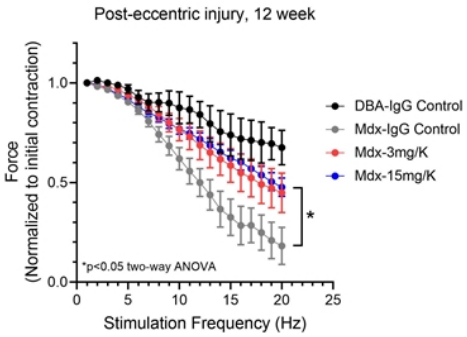
Plantar flexion test

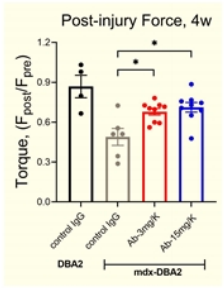
- Gastrocnemius (GC): Premier mover muscle for plantar flexion.
- GC only muscle to join both ankle and knee.

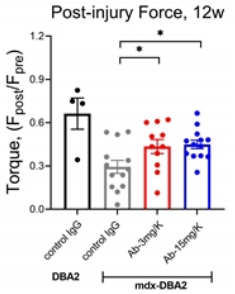


Eccentric muscle injury protocol: A series of 20 tetanic stimulations (80Hz, 0.2ms pulse, 500ms duration) are delivered at 0.1Hz frequency. The foot is rotated against the direction of contraction by 10° over 250ms, resulting in an eccentric contraction

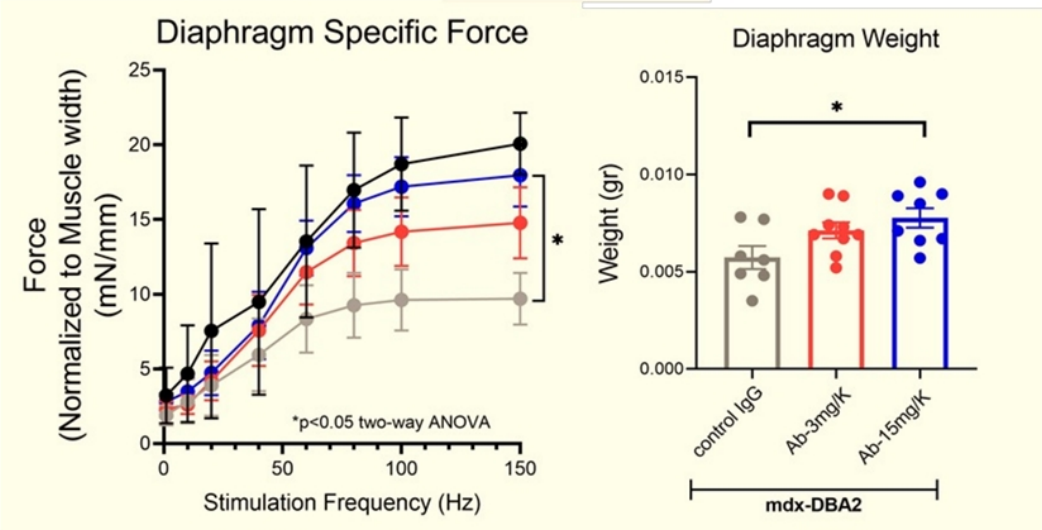








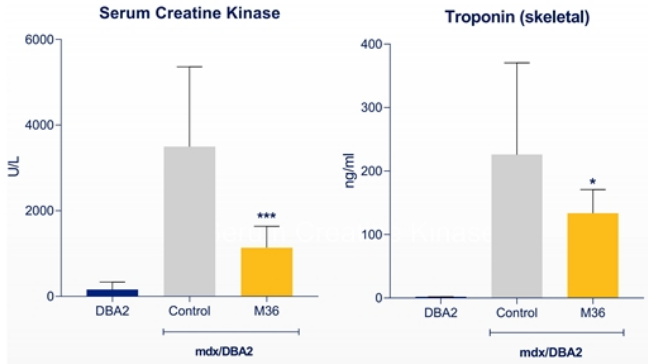
Diaphragm Force Significantly Improved at 4 Weeks of Treatment



MYOLOGICA

Pliant's $\alpha_7\beta_1$ mAb Demonstrated Improved Muscle Membrane Integrity and Diaphragm Function in Mouse DMD Model

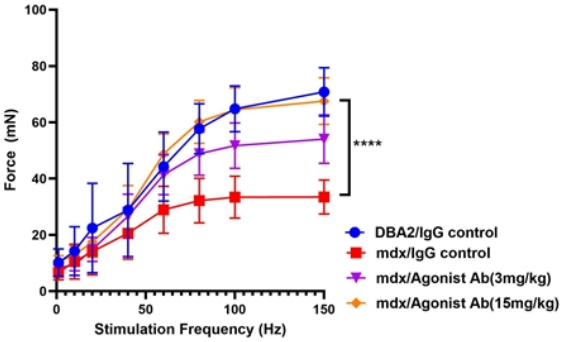
Antibody treatment protected against muscle damage



- Reduction of clinical biomarkers including serum creatine kinase and skeletal troponin

***p 0.001, *p<0.05, one-way ANOVA
Mean +/- SD n=10/group

Duchenne muscular dystrophy (DMD) causes progressive wasting of cardiac and respiratory muscles (main cause of death)



- Improvement in diaphragm function is expected to significantly improve patient pulmonary function

****p 0.0001, two-way ANOVA

Pliant Development Pipeline

	Program	Indication	Preclinical	Clinical			Anticipated Milestone	Global Rights
				Phase I	Phase II	Phase III		
WHOLLY OWNED	*Bexotegrast* (PLN-74809) Dual selective inhibitor of $\alpha_v\beta_6$ /$\alpha_v\beta_1$	Idiopathic Pulmonary Fibrosis					Phase 2a 320 mg 12-Week Data Expected Early 1Q 2023	PLIANT
		Primary Sclerosing Cholangitis					Phase 2a Data Expected 3Q 2023	PLIANT
	PLN-101095 Inhibitor of $\alpha_v\beta_8$ /$\alpha_v\beta_1$	Solid Tumors					IND Filed; Phase 1 Initiation 2Q 2023	PLIANT
	PLN-101325 Anti-integrin mAb of $\alpha_7\beta_1$	DMD Other Muscular Dystrophies					IND Filing Expected 2023	PLIANT
PARTNERED	PLN-1474 Selective inhibitor of $\alpha_v\beta_1$	NASH-Associated Liver Fibrosis					Phase 2 Initiation	NOVARTIS