



Investor Presentation | July 12 2023 Gary Phillips CEO

# Pharmaxis is the global leader in lysyl oxidase chemistry and biology

Multi year research program leveraged with extensive scientific collaborations worldwide has delivered 2 drugs in the clinic

## Lysyl oxidases are the final stage in fibrosis Stiffer matrix; Increased contraction forces Increased matrix Increased collagen stiffness production Activated Fibroblasts Increased matrix **Excessive collagen** stiffness production Lysyl Oxidase Collagen cross-linking

Tissue stiffening due to increases in collagen and number of crosslinks which is a hallmark of fibrosis, is preventable through lysyl oxidase inhibition; at the heart of a true anti-fibrotic therapy

#### PXS-5505

- Oral dosage form four capsules twice a day
- Patent filed priority date 2018
- Strong pre clinical evidence in models of fibrosis and cancer
- INDs approved for myelofibrosis and hepatocellular carcinoma
- Potential in multiple cancer indications
- Phase 1 data demonstrates a safe, well tolerated drug that gives >90% inhibition of LOX enzymes

#### PXS-6302

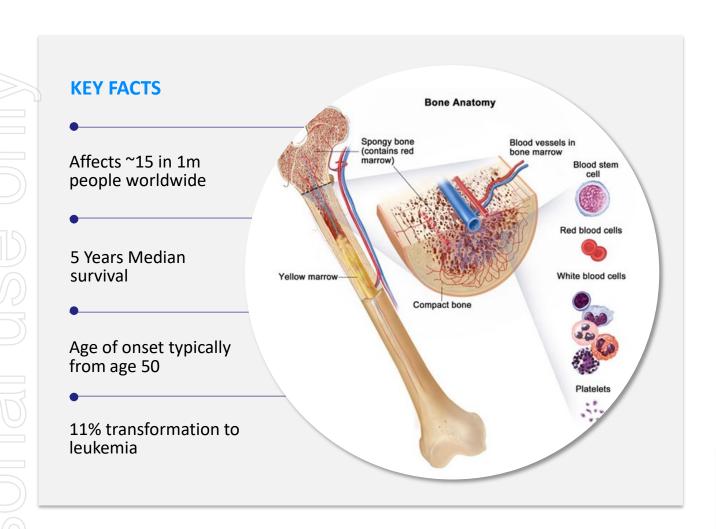
- Topical dosage form
- Patent filed priority date 2019
- Strong pre clinical evidence in models of skin fibrosis and scarring
- Potential in prevention of scar formation and modification of existing scars
- Phase 1a (healthy volunteer) data demonstrates a safe, well tolerated drug that gives full inhibition of LOX enzymes in the skin with minimal systemic exposure



#### **Program Update**

# **Myelofibrosis**

A rare type of bone marrow cancer that disrupts the body's normal production of blood cells



**Primary Myelofibrosis** is caused by a build up of scar tissue (fibrosis) in bone marrow reducing the production of blood cells:

- Reduced red blood cells can cause extreme tiredness (fatigue) or shortness of breath
- Reduced white blood cells can lead to an increased number of infections
- Reduced platelets can promote bleeding and/or bruising
- Spleen increases blood cell production and becomes enlarged
- Other common symptoms include fever, night sweats, and bone pain

#### **Current Standard of Care; JAK inhibition**

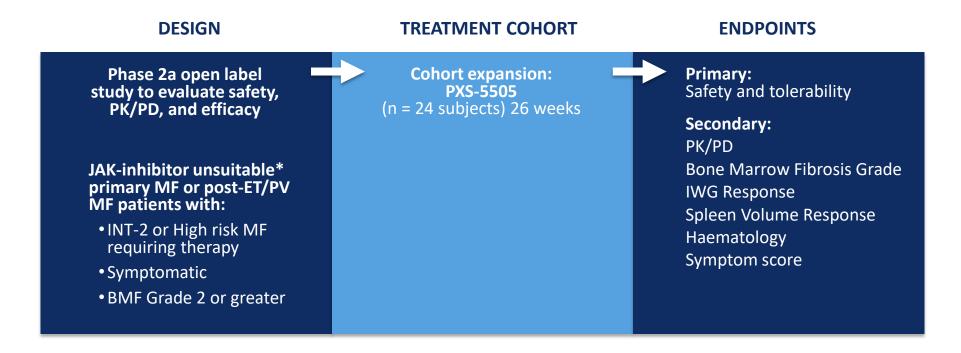
- Symptomatic relief plus some limited survival improvement. 75% discontinuation at 5 years
- Median overall survival is 14 16 months after discontinuation

#### **Commercial Opportunity**

 Current standard of care; revenue ~US\$1b per annum

# **Myelofibrosis - PXS-5505 Phase 1/2a Trial**

6 month monotherapy study with meaningful safety and efficacy endpoints



FDA granted orphan drug designation July 2020 and IND approved August 2020

20 sites across 4 countries (Australia, South Korea, Taiwan, USA)

Study recruitment commenced Q4 2021



# Myelofibrosis - PXS-5505 Phase 2a Trial (INTERIM DATA)

Very well tolerated with encouraging signs of clinical efficacy in JAK inhibitor unsuitable patients

## Study status

- 21 out of a targeted 24 patients have been enrolled
- 10 patients having completed 24 weeks of treatment; none treatment related

## Safety

- PXS-5505 has been well tolerated with no serious treatment related adverse events reported
- Majority of AEs were mild and not related to treatment
- 10 patients have dropped out of the study

## Efficacy

- 5/9 evaluable patients\* had improved bone marrow fibrosis scores of ≥1 grade with 4 out of 5 fibrosis
  responders demonstrating stable hematological parameters and 3 out of 5 patients reporting symptomatic
  improvement
- 4 had an improvement in symptom score of >20%
- 7 had stable/improved hemoglobin (Hb) counts
- 8 had stable/improved platelet counts; 3 of these 8 patients entered the study with Grade 4 (potentially life-threatening) thrombocytopenia
- No spleen volume response (SVR35) was identified



# PXS-5505 Phase 2 Trial (MF-101); Expert review

- "PXS-5505 continues to show not only an excellent safety profile but also promising clinical activity. The effect on bone marrow fibrosis is particularly exciting for a disease like myelofibrosis, where despite numerous years of research, we do not have any effective anti-fibrotic drugs."
- "It is encouraging to see that majority of 10 patients who completed 24 weeks of therapy also had improvements of symptoms and more importantly, stable or improved blood counts; including in those patients with severe thrombocytopenia."
- "These results support plans to continue clinical investigation of the agent, including combinations with JAK inhibitors where the lack of overlapping hematological toxicity would make PXS-5505 an ideal add-on candidate."



Dr. Lucia Masarova
Assistant Professor, Department of
Leukemia at MD Anderson Cancer Center,
Houston

# PXS-5505 myelofibrosis clinical development plan: FDA feedback

- FDA Type C Meeting held in Q2 2023
- FDA reviewed all safety and efficacy data available at that time.
- Subject to protocol review FDA supported progression into a study in combination with a JAK inhibitor
- FDA provided guidance on the number of patients, treatment dosage, study duration and endpoints
- Trial protocol proposed to FDA
  - Uses existing trial sites; fast start up and minimal initiation costs
  - No dose escalation step; fastest route to meaningful data
- FDA feedback expected July 2023



## **Upcoming News Flow**

## Five trials to deliver near term value

Pipeline creates multiple opportunities in high value markets

	,	Indication	Addressable market (US\$)	Trial design	# patients	Status	Data
	PXS-5505	Myelofibrosis (MF)	\$1 billion	Phase 2 open label 6 month study in JAK intolerant / ineligible myelofibrosis patients	24	Recruiting	Interim data released Significant data update mid 2023
	PXS			Phase 2 open label 6 month study in JAK intolerant / ineligible myelofibrosis patients	TBD	First Patient 2H 2023	TBD
	3302	Modification of established scars	\$3.5 billion	Phase 1c 3 month placebo controlled study in patients with established scars (>1 year old)	50	Reported	H1 2023
10	PXS-6302	Scar prevention	\$3.5 billion	Phase 1c 3 month placebo controlled study in patients with scarring subsequent to a burns injury	50	First patient 2H 2023	2024
	PXS-4728	Isolated REM sleep behaviours disorder (iRDB) and neuro inflammation	\$3.5 billion	Phase 2 double blind, placebo controlled study in patients with iRBD	40	First patient Q3 2023	H1 2025

#### **Upcoming News Flow**

## **News flow**

Anticipated news flow

Strong and growing pipeline with advancement in studies expected to provide value inflection points in FY23

#### **Q1 2023**

- Pharmaxis strengthens Board with two new appointments
  - PXS-5505 publication by KOL in hematological cancer myelodysplastic syndrome

#### Q2 2023

- PXS-5505: Encouraging FDA feedback on plans to progress to JAK inhibitor combination study
- LOX topical drug PXS-6302 top line data from established scars study
- PXS-5505 myelofibrosis monotherapy study: significant data update

#### H<sub>2</sub> 2023

- PXS-5505 phase 2 myelofibrosis study add on to JAK inhibitor commences recruitment
- Pan-LOX scar treatment and prevention clinical development update and trial initiation
- PXS-4728 iRBD / neuro inflammation study commences recruitment
- PXS-5505 phase 2a myelofibrosis study completed and reports safety and efficacy data at ASH





# phormoxis

developing breakthrough treatments for fibrosis and inflammation

Pharmaxis Ltd ABN 75 082 811 630 www.pharmaxis.com.au





Contacts
Gary Phillips
Chief Executive Officer
gary.phillips@pharmaxis.com.au

David McGarvey Chief Financial Officer david.mcgarvey@pharmaxis.com.au