Amplia Therapeutics - Shareholder Update

April 2021

Amplia Therapeutics Limited

Amplia
Exposing cancer. Enhancing treatment.

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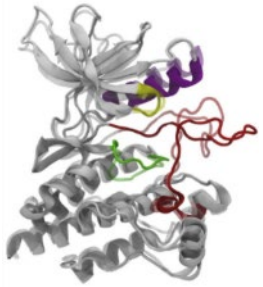
Focal Adhesion Kinase – dual purpose drug target



Focal Adhesion Kinase (FAK)

Biology

Cancer

- Cell migration and metastasis
- Collagen accumulation
- Local regulation of immune response

Fibrosis

- Collagen accumulation
- Fibronectin production

Opportunity

Combination Therapy

- Pancreatic cancer
- Ovarian cancer

Monotherapy

- Lung fibrosis
- Liver fibrosis

Target Indications

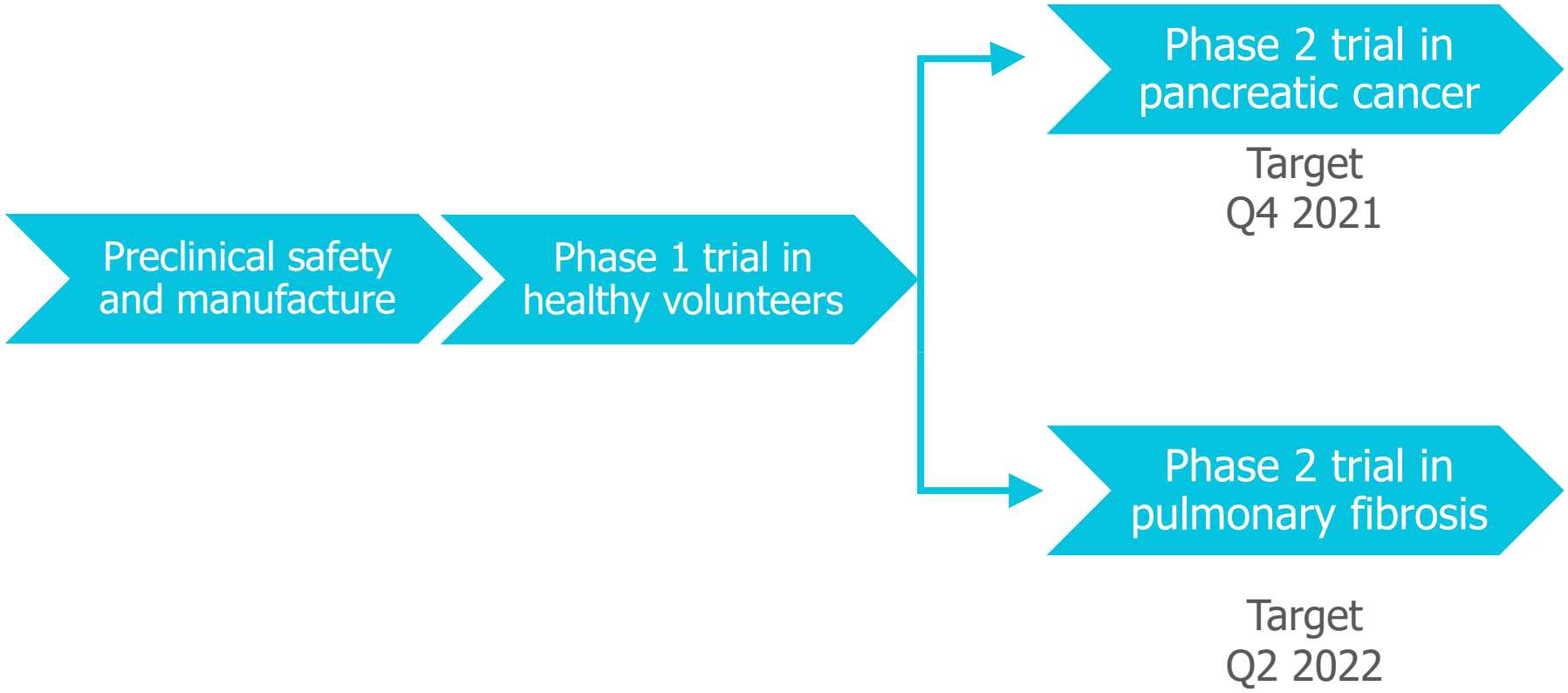
Idiopathic Pulmonary Fibrosis (IPF)

- A devastating, progressive disease caused by the build-up of fibrotic tissue in the lung
- Affects 3M people worldwide, including 130,000 in the US
- Untreated, median survival time is 2-3 years
- Available drugs slow the progression of the disease but are unable to prevent the eventual loss of lung function

Pancreatic Cancer

- Fibrotic and difficult-to-treat cancer
- Overall 5-year survival rate is ~10%
- Median survival time for metastatic disease is 6-8 months
- Highly unmet need in oncology

AMP945 parallel development paths



Phase 1 Clinical Trial

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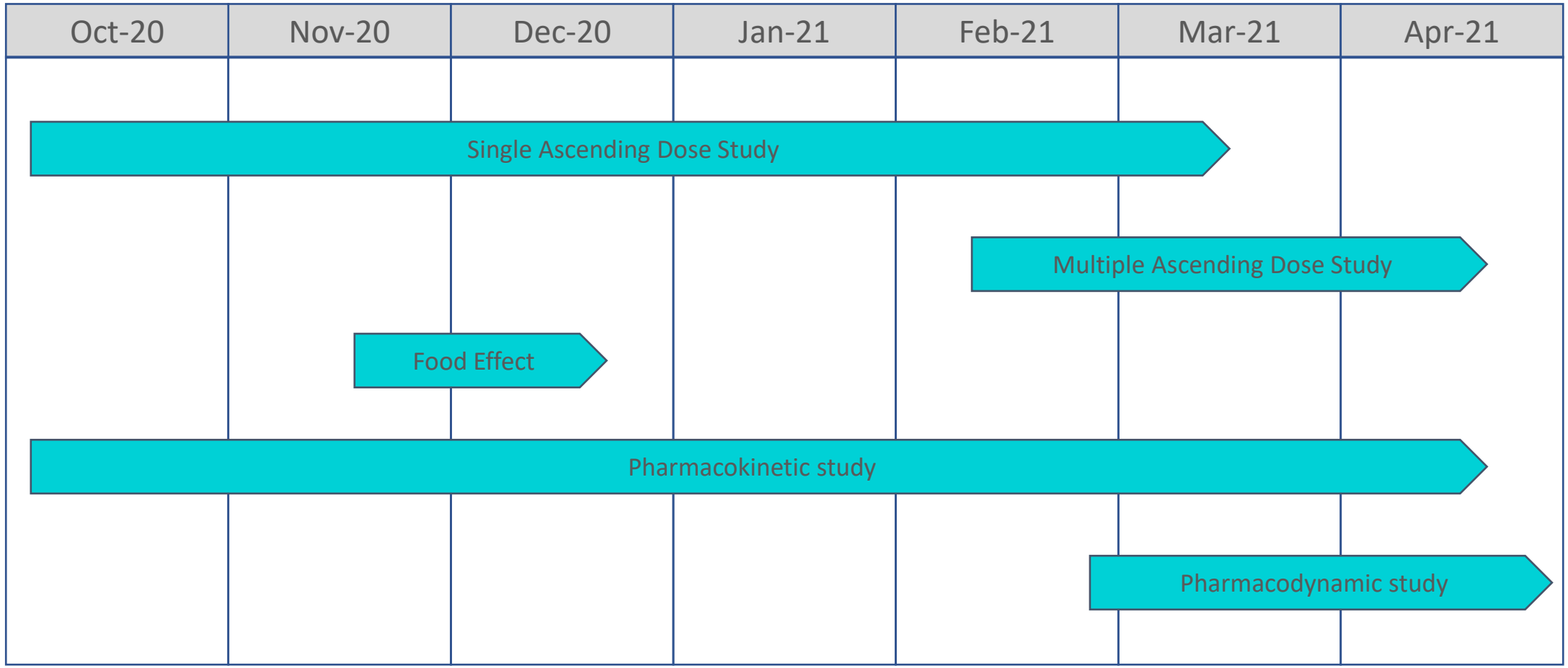
Phase 1 update

- Trial execution:
  - Commenced in October 2020 — completed dosing in April 2021
  - Conducted in healthy volunteers
  - Single site in Melbourne Australia, Nucleus Network

- Phase 1 trial components:
  - Single Ascending Doses
  - Multiple Ascending Doses
  - Food Effect
  - Pharmacokinetics
  - Pharmacodynamics

- Dosing was completed on time and on budget

Phase 1 trial of AMP945 – design and execution



Phase 1 – initial data

- Safe and well-tolerated at doses tested
- No evidence of food effect
- Pharmacokinetics support once-a-day oral dosing

- Supports advancing AMP945 into Phase 2 clinical trials
  - Planning for Phase 2 trial in pancreatic cancer and pulmonary fibrosis already commenced
  - On track to initiate first Phase 2 clinical trial in late 2021
  - Longer term animal toxicology studies to be conducted to support fibrosis indications

- Full study reported expected during this current quarter

Garvan Collaboration

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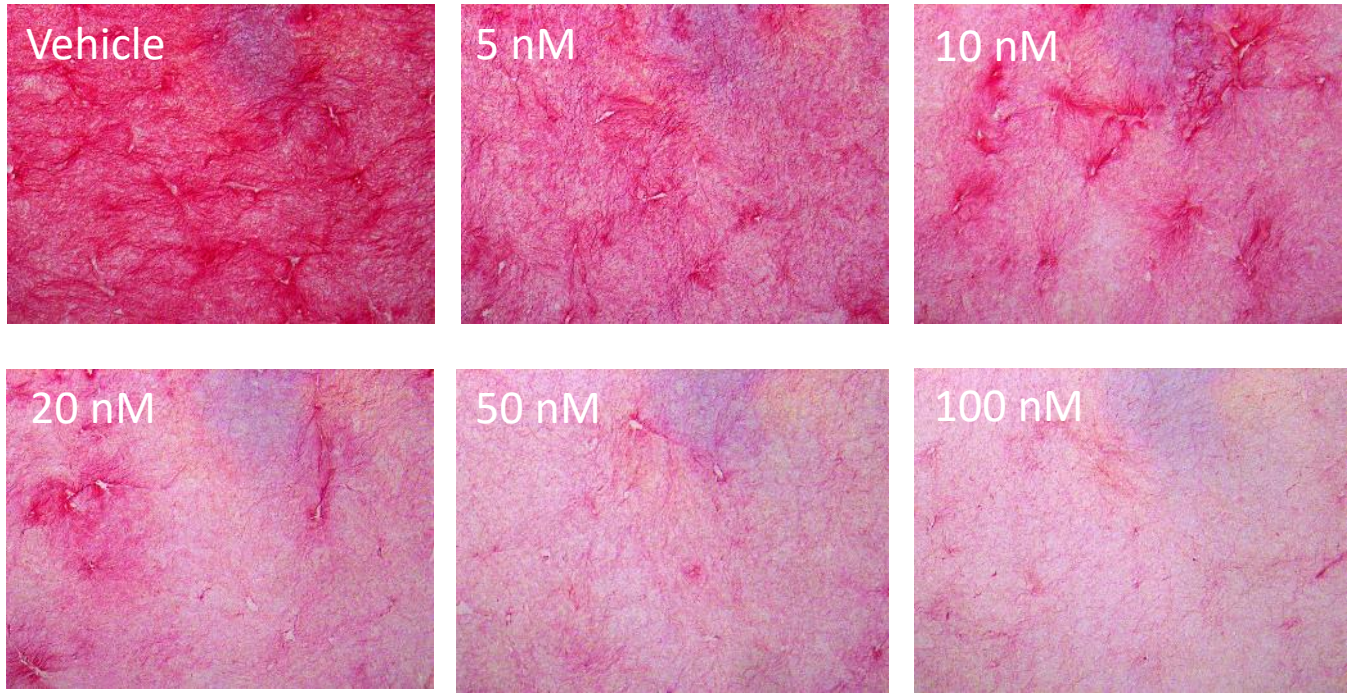
Garvan collaboration

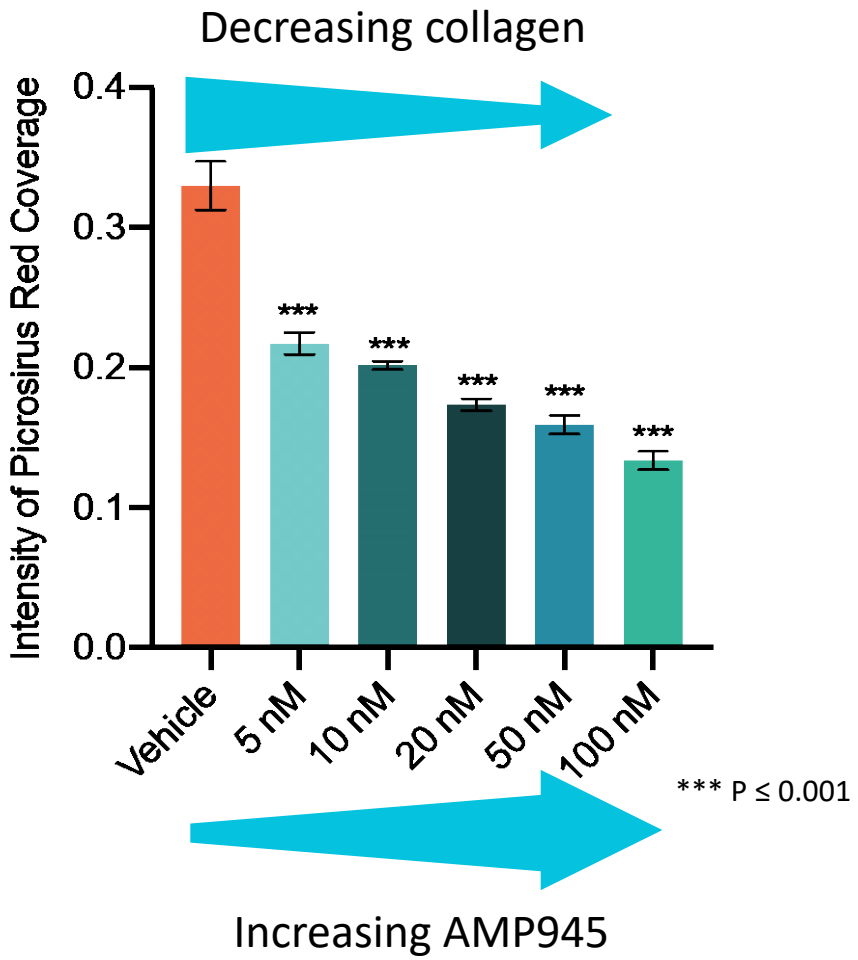
- Researchers in Prof. Paul Timpson's research group have been studying the role of FAK in pancreatic cancer models for >6 years
- Have shown that FAK inhibition
  - Improves efficacy of gemcitabine/Abraxane®
  - Extends survival
  - Reduces metastases

- Amplia has been collaborating with Timpson Lab for over 1 year
  - Confirmed that AMP945 exerts same effects as reference FAK inhibitors
  - Additional *in vitro* and *in vivo* studies further validate
    - Antifibrotic activity of AMP945
    - Potential application for use in pancreatic cancer
  - Garvan and Amplia agreed to formalise a collaboration in March 2021
    - Build on existing knowledge and IP and leverage clinical networks

AMP945 inhibits new collagen deposition *in vitro*

Picosirius red staining for total collagen



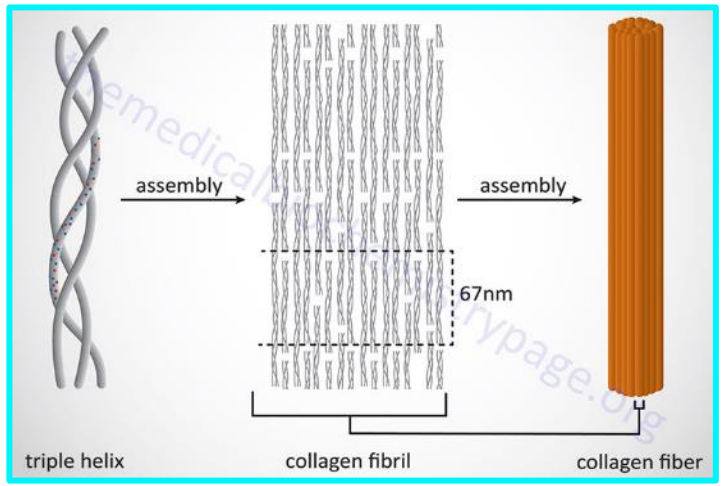


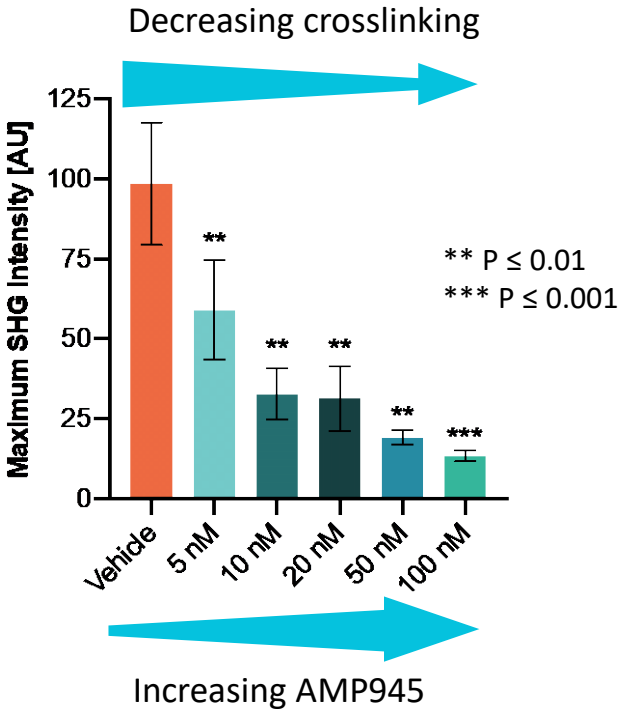
Take home messages:

- Collagen is a key building block of fibrotic tissue
- Fibroblasts lay down new collagen
- AMP945 inhibits fibroblasts, causing less new collagen to be deposited

Data produced in the laboratory of Professor Paul Timpson (Garvan)

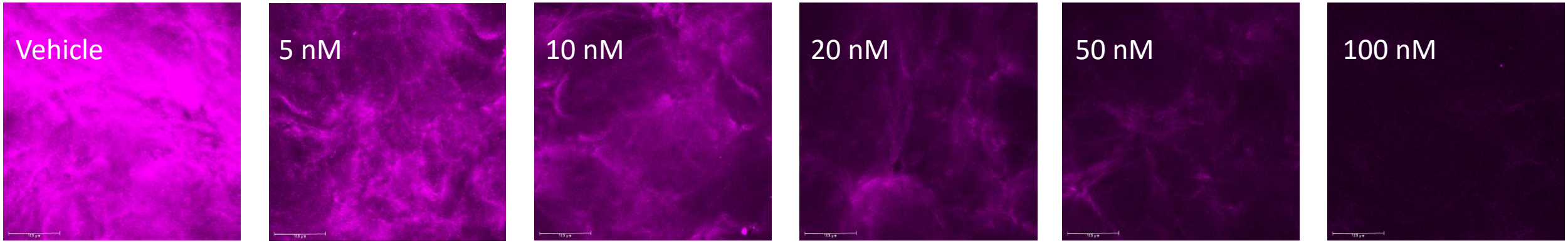
AMP945 inhibits collagen cross-linking *in vitro*





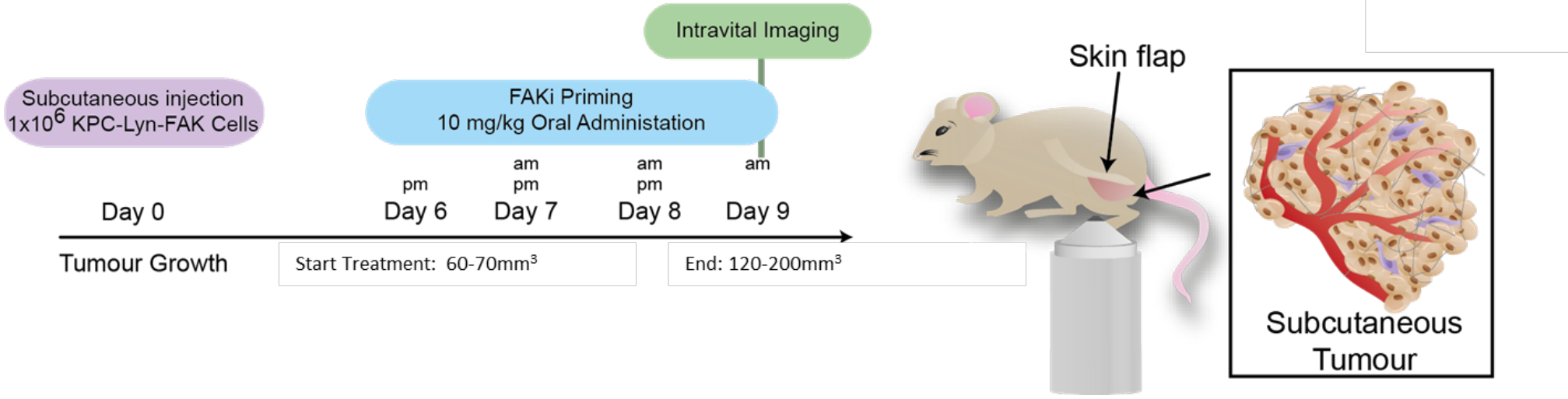
Take home messages:

- Crosslinked collagen is a key building block of fibrotic tissues
- AMP945 inhibits collagen cross-linking



Data produced in the laboratory of Professor Paul Timpson (Garvan)

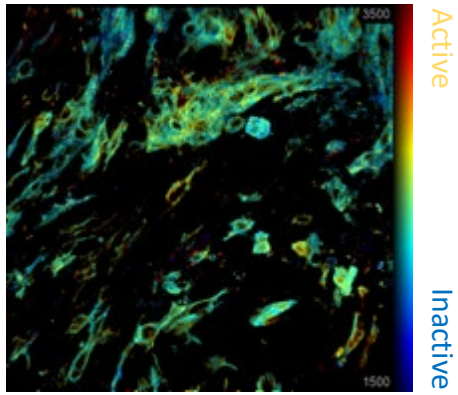
In vivo study design



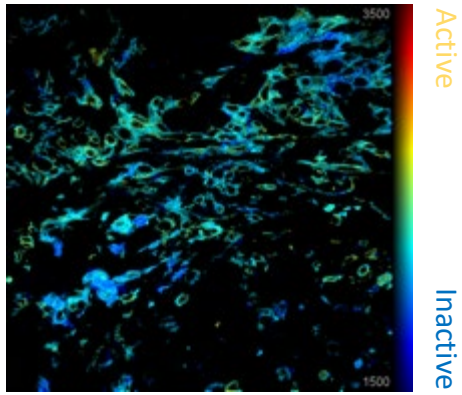
AMP945 inhibits p-FAK in the subcutaneous KPC mouse model of pancreatic cancer

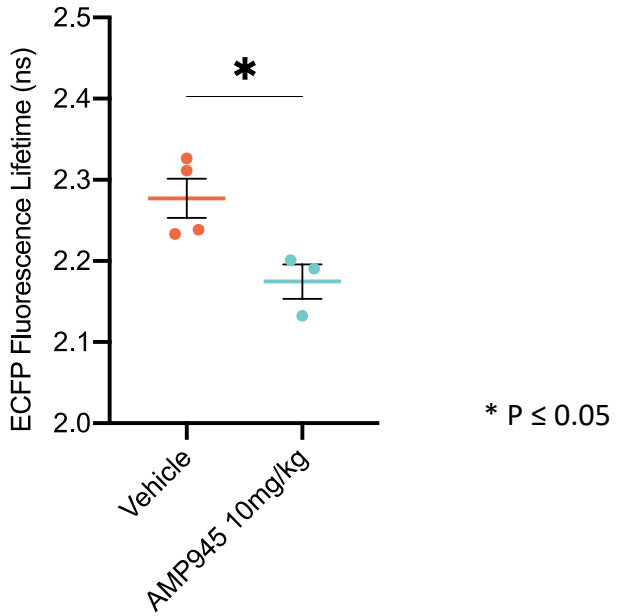
p397-FAK using FAK-Lyn biosensor

Vehicle



AMP945 10mg/kg





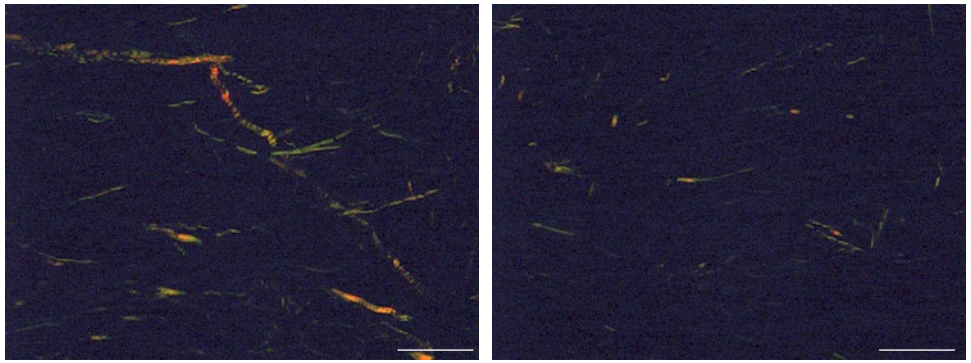
* P ≤ 0.05

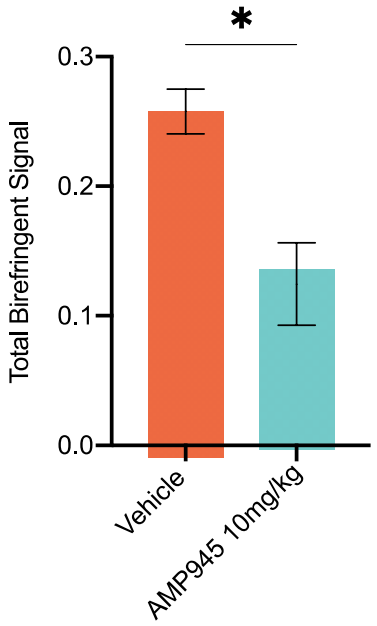
Data produced in the laboratory of Professor Paul Timpson (Garvan)

AMP945 inhibits collagen formation and cross-linking *in vivo*

Total collagen

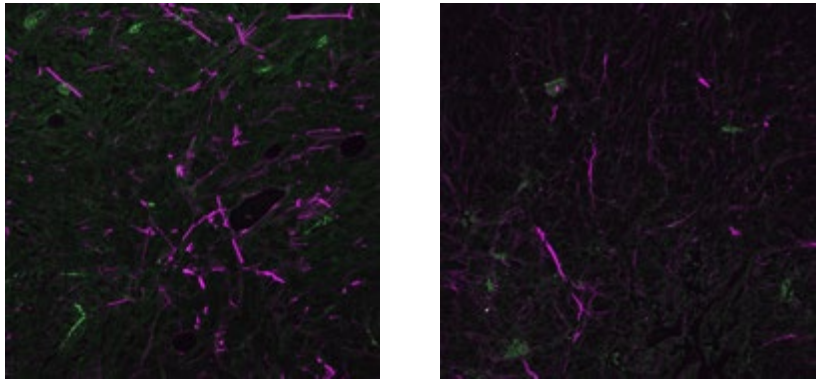
Vehicle **AMP945 10 mg/kg**

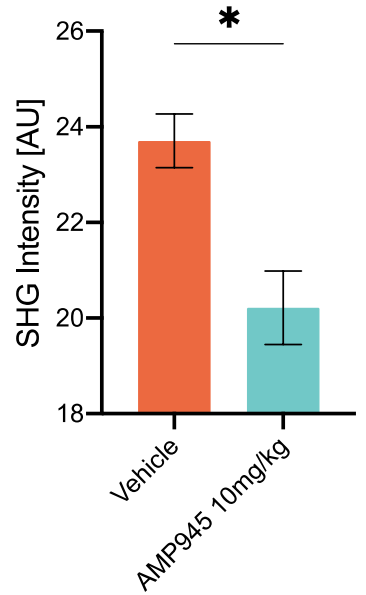




Cross-linked collagen

Vehicle AMP945 10 mg/kg BID

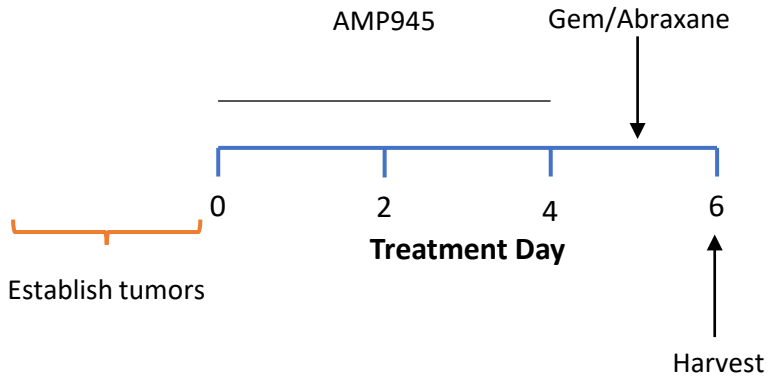




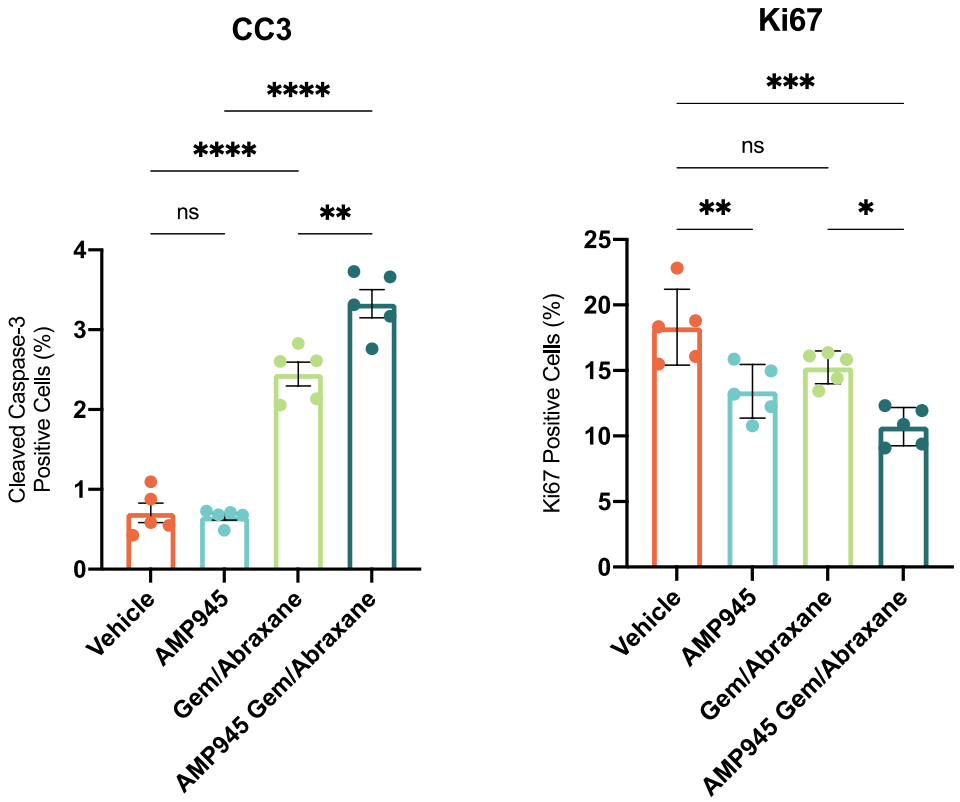
* P ≤ 0.05

Data produced in the laboratory of Professor Paul Timpson (Garvan)

AMP945 'priming' enhances response to Gemcitabine/Abraxane® *in vivo*



Tumors analysed 24 hrs post Gem/Abraxane administration



* P ≤ 0.05
** P ≤ 0.01
*** P ≤ 0.001
****P ≤ 0.0001

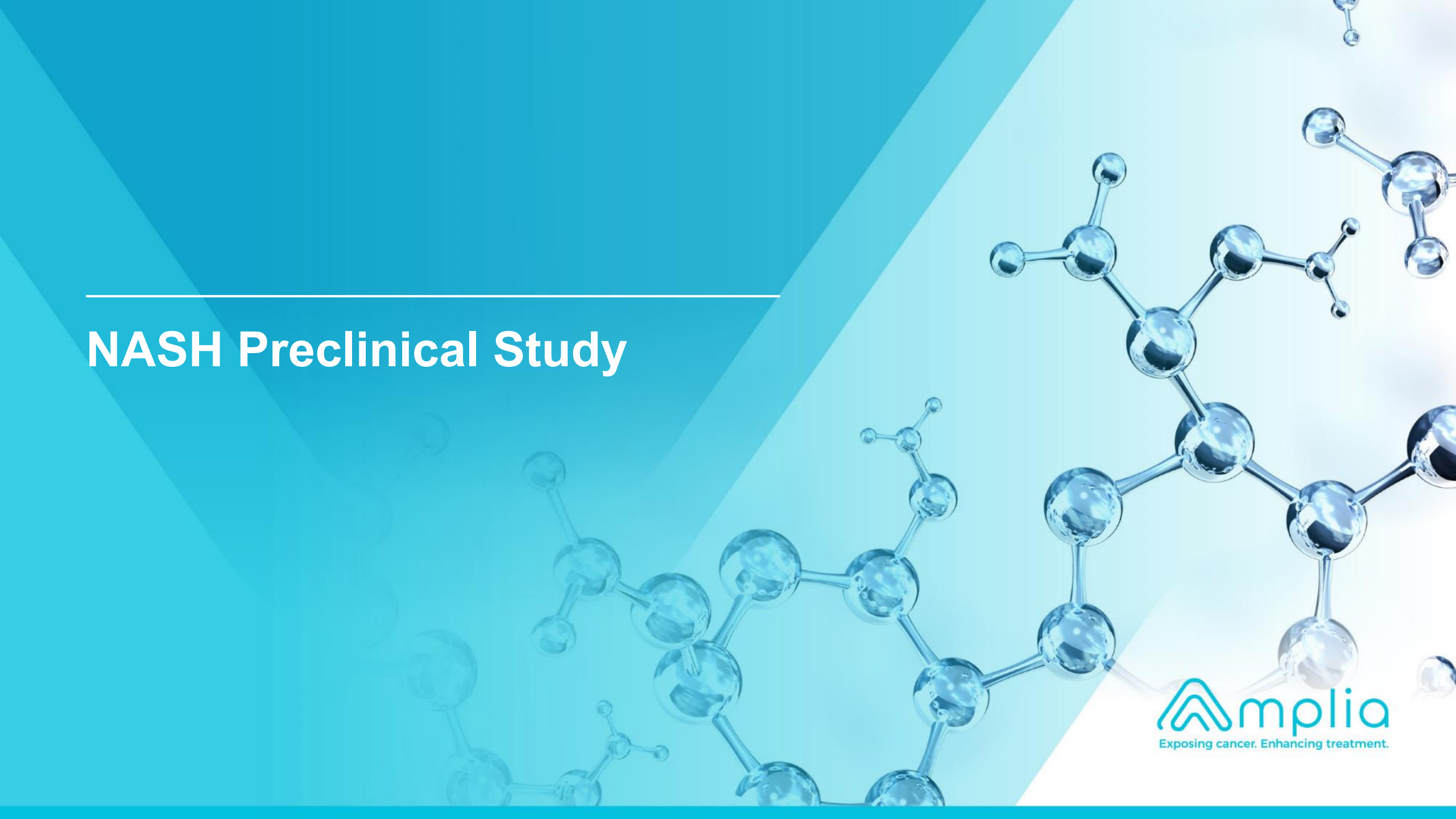
CC3: Cleaved Caspase-3, a marker of cell death
Ki67: a marker of cell proliferation

Data produced in the laboratory of Professor Paul Timpson (Garvan)

Take home messages from Garvan studies so-far

- AMP945 inhibits fibrosis markers both *in vitro* and *in vivo*
- Oral doses of AMP945 in mice inhibit p-FAK in tumors
- Priming with AMP945 enhances the effect of gemcitabine/Abraxane® as measured by impact on key markers of cell death and proliferation

NASH Preclinical Study



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STAM™ - model of NASH[1]

5-6 weeks | 7-8 weeks | 9-10 weeks | 16 weeks

- 1st hit: Chemical – low dose of streptozotocin at birth
- 2nd hit: Diet – continuous high-fat diet

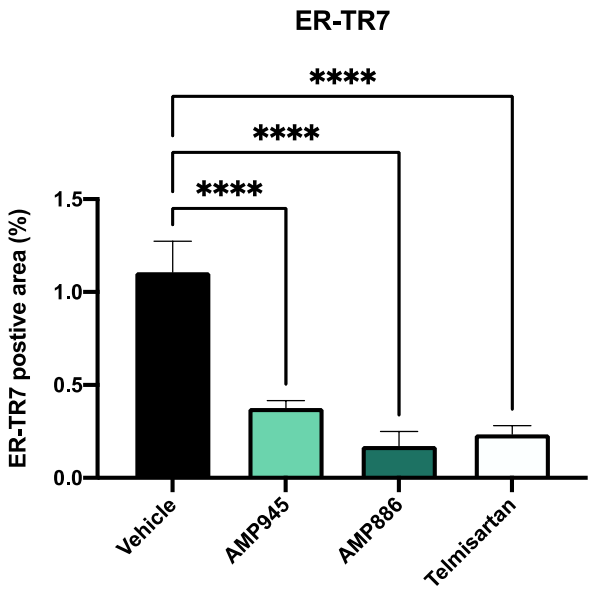
"An *in vivo* model which does appear to recapitulate most pathological attributes of NASH is the STAM™ mouse model."

https://insphero.com/blog/why-we-need-better-preclinical-models-for-nash-drug-discovery/

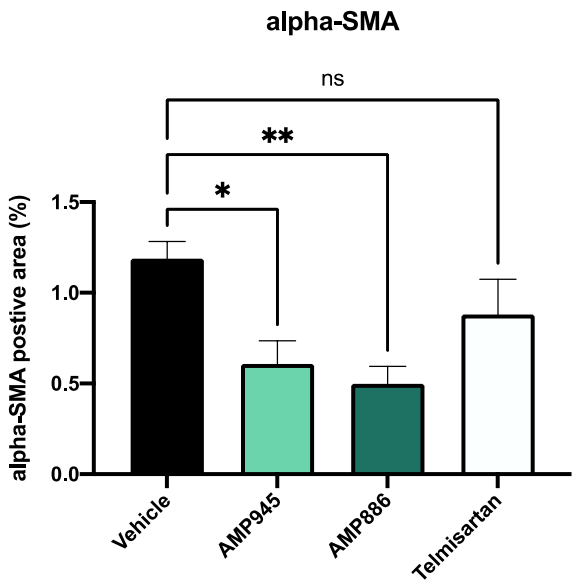
[1] NASH – Non-Alcoholic Steatohepatitis – fibrotic liver disease which affects approximately 5% of adults in the US

AMP945 effective in animal model of NASH

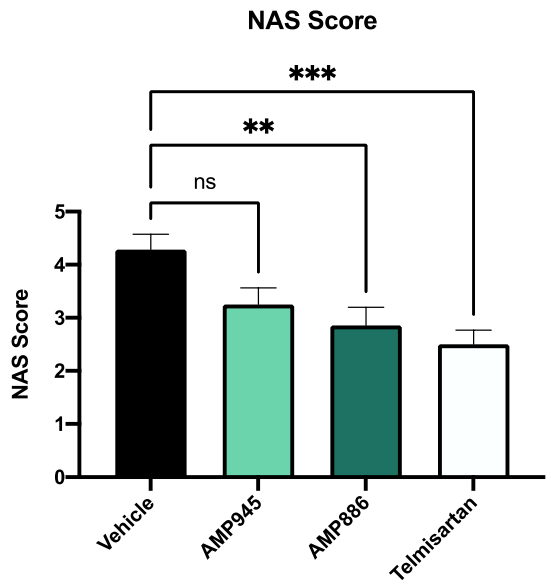
Fibroblast marker



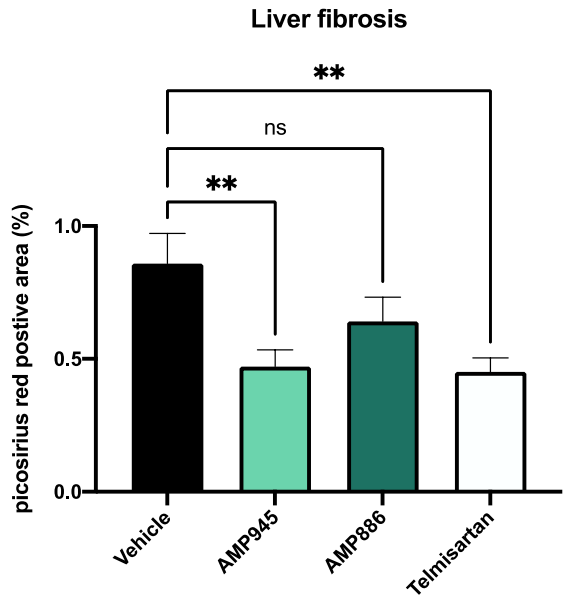
Fibroblast activation



NASH symptoms



Fibrosis



* P ≤ 0.05
** P ≤ 0.01
*** P ≤ 0.001
****P ≤ 0.0001

Take home messages from NASH study

- AMP945 and AMP886 significantly inhibit fibroblasts and their activation in the liver
- These effects translate to inhibition of NASH and fibrosis in the liver
- The findings support utility of Amplia's FAK inhibitors in a variety of fibrotic diseases with unmet medical need

Summary

- Amplia has made excellent progress on development of its FAK inhibitor assets
  - Phase 1 trial on track
  - Exciting data from Garvan collaboration
  - Early signs of efficacy on NASH model
- Phase 2 studies well supported by a platform of clinical and pre-clinical data
- Further transformation and growth expected as the Company readies for Phase 2 clinical studies

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