Amplia
THERAPEUTICS

# Amplia Therapeutics Newsletter

July, 2019

Amplifying Immunology

For more information email info@ampliatx.com

Amplia THERAPEUTICS

# Newsletter

## Welcome to the Second Newsletter for 2019

Since we last updated you in February 2019, our focus has been on conducting the preliminary studies required to support our entry into clinical trials in 2020: manufacturing the materials required to both complete the preclinical work and supply the first-in-human clinical trial and kicking off the preclinical safety studies. Much of this work is now complete and, as shareholders will be aware, we are currently raising additional capital so that we can push these preliminary studies to completion. We both appreciate and look forward to your ongoing support for Amplia.

### Company Overview

Amplia Therapeutics Limited (Amplia) is developing a pipeline of highly promising drug candidates that target focal adhesion kinase or "FAK". FAK plays a critical regulatory role in aggressive cancers such as pancreatic, ovarian, and triple-negative breast cancer. FAK also plays a fundamental role in fibrotic diseases such as idiopathic pulmonary fibrosis (IPF) and non-alcoholic steatohepatitis (NASH). Patients with these serious diseases need more effective and better-tolerated treatments. Medicines that safely and effectively inhibit FAK could deliver significant clinical benefit for patients with these "fibrotic" diseases – both for cancer and chronic applications.

Our two lead molecules, referred to as AMP945 and AMP886, inhibit FAK. These drug candidates were developed through world-class research conducted at the Melbourne-based Cancer Therapeutics Cooperative Research Centre. This is the same cluster of research talent that has successfully achieved multi-million dollar licensing deals for early stage cancer assets with both Pfizer and Merck.

Several "Big Pharma" firms are interested in FAK as a novel drug target but do not have meaningful FAK programmes of their own due to the scarcity of high-potential product candidates. Both AMP886 and AMP945 have the general qualities that make them worthy of further development including excellent potency and selectivity, suitability for oral administration, cost-effective and scalable production, and strong intellectual property (IP) coverage.

Our near-term goal is to validate that AMP945 inhibits FAK in humans at doses that are well tolerated when given as repeat daily doses. The first clinical study will be conducted – in 2020 – as a Phase 1 study in healthy volunteers. We have chosen to do this initial study in healthy volunteers because it enables us to develop a data set that will support the simultaneous development of the lead program (AMP945) in both cancer and fibrosis indications. This is a unique differentiator of the Amplia clinical development strategy and a significant benefit to shareholders. A subsequent study will be a Phase 2 study in patients to establish therapeutic benefit in a key oncology indication. Successful commencement and completion of each of these development stages will create major value inflection points for shareholders and reinforce the existing level of commercial interest in our assets.

## 2019 Achievements So-far

### Drug Manufacturing and Production Scale-Up

In our February newsletter we told you that we had selected a manufacturing vendor, made some process improvements and started kilo-scale manufacture of AMP945. In April, our contract manufacturer successfully completed the manufacture of a kilogram-scale batch of AMP945 under the principles of Good Manufacturing Practice (GMP).

This represents a significant milestone for two reasons:

(i) It shows that the manufacturing methods we have in place are robust and reliable and that we will be able to manufacture sufficient supplies of AMP945 without issue. Often in the early stages of drug development, limited availability of drug substance can create a real bottleneck. As far as Amplia is concerned, we are pleased to have the required materials for the studies in our immediate future in hand.

(ii) Having sufficient material to supply both the required preclinical safety studies and the Phase 1 clinical trial we have planned for 2020 gives us additional confidence that these studies will progress on time and means that we do not have to apply additional funds or effort to the manufacture of additional drug substance.

As we move forward with the development of AMP945 we will continue to improve the manufacturing process but, for now, we have the materials we need to support our immediate clinical milestone.

## Toxicology and Safety Studies

Before any drug candidate can be tested in humans, it must be tested in pre-clinical studies to ensure that the planned human dosing regimen poses a manageable level of risk. These studies need to be thoroughly designed and monitored as the data will be carefully scrutinised by ethics committees and regulators (such as the TGA and FDA) and will also become a critically important part of the product development profile that we will be building around our assets.

In our last Newsletter, we informed you that we had initiated the preliminary dose range-finding studies. As forecast, these studies were completed in the second Quarter of 2019. The outcomes of these studies were very much in-line with our expectations and established the platform from which we can complete the package of safety studies required before we can initiate clinical trials.

## Interactions with Scientific and Clinical Advisors

In March, we were pleased to welcome Associate Professor Lara Lipton and Professor Phil Hansbro as advisors. Lara is the first member of our Clinical Advisory Board and is a clinical oncologist with a special interest in pancreatic cancer, an area of particular interest to Amplia. Phil is an internationally recognised expert in the role fibrosis plays in diseases such as chronic obstructive pulmonary disease (COPD), asthma and idiopathic pulmonary fibrosis (IPF).

We were also fortunate to be able to spend a day with Professor Margaret Frame when she recently visited Australia. Margaret is the pre-eminent expert on FAK biology and we are fortunate to have her on our team. One of the key challenges that faces the FAK community is how to best exploit the vulnerabilities of cancers that rely on FAK to evade detection by the immune system. Margaret's deep understanding of FAK biology provides us with unique insights into which patients are most likely to respond to combination treatment with Amplia's FAK inhibitors and in due course, how we should design our Phase 2 proof-of-concept clinical studies.

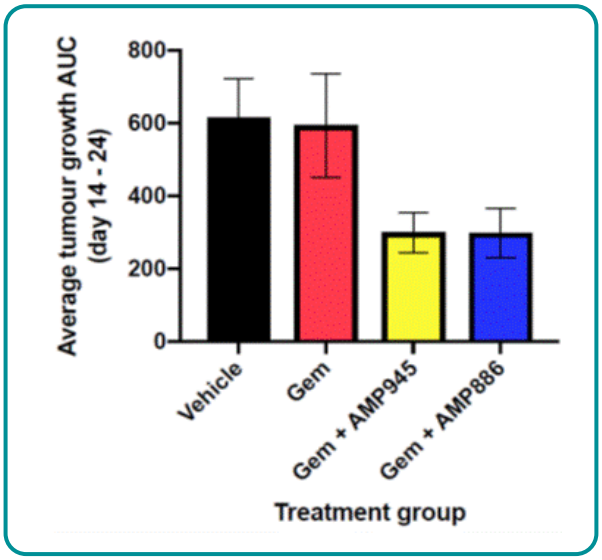
## Preclinical Efficacy Testing

In our previous newsletter, we mentioned that we were testing AMP945 and AMP886 in preclinical cancer models. One such model is the so-called Panc-1 model of pancreatic cancer. Using this model we compared the volume of transplanted pancreatic tumours in mice when they were treated with gemcitabine alone to when treated with gemcitabine plus either AMP945 or AMP886.

Over the period of 14 to 24 days following transplantation, the tumour volume was notably smaller in mice treated with gemcitabine plus AMP945 or AMP886. While no single model is entirely predictive of efficacy in humans, we were very encouraged by these results.

We have also received encouraging results from Dr Alan Serrels' laboratory at the University of Edinburgh. Dr Serrels is one of our advisors and his research group was among the first to demonstrate that FAK modulates the immune environment of certain tumour cells.

He has confirmed these findings recently, demonstrating that AMP945 treatment induces an increase in anti-tumour immune cells with a concurrent depletion in immune-suppressive cell types whose presence normally hampers the immune system's capacity to attack the tumour.




## Our New Chief Executive - Dr John Lambert

The final step in the Amplia's transformation has been the appointment of a new CEO, Dr John Lambert. John has been managing our operations since August 2018 and has overseen the delivery of the preclinical safety and manufacturing work done to date. We believe that Amplia's value will be driven by our ability to design and then deliver clinical milestones. John's experience in product development operations will allow him to drive further value into our assets by guiding them through the early stages of drug development and on into clinical proof-of-concept studies. We have already pointed out the broad skill set of the Amplia's team and John is planning to draw on this extensively.

## Capital Raising

Amplia shareholders will be aware that we have recently initiated a campaign to raise up to A$2.7 million. This raise is the first since the Company was 'relaunched' last year and we need your support so can complete the activities necessary to start clinical trials next year. Shortly you will receive, either by email or post, details of a 1:2 Rights Issue with free attaching options. If you do not receive a copy of the Prospectus and Entitlement and Acceptance Form, please contact our Company Secretary Andrew Cooke - andrew@ampliatx.com.

**The Rights Issue closes at 5pm, Friday 26 July 2019.**

## What's Coming Next?

We expect the next six months of this year to be extremely busy. Here are some of the expected highlights:

Scientific and Clinical Advisory Boards (SAB/CAB) – we are planning to invite additional clinicians to join our Clinical Advisory Board. We will then work with these experts to refine our plans for Phase 2 clinical trials.



Scientific Partnerships - We are working with the world's leading FAK research group at the University of Edinburgh to ensure that as we move into Phase 2 studies in patients we have the best available data set to guide decision-making. The Edinburgh group, led by Prof. Margaret Frame, is strongly supported by the world's largest cancer charity, Cancer Research UK (CRUK). CRUK is also a significant Amplia shareholder. We also continue to explore other opportunities for collaboration with groups that have particular interest in our FAK inhibitors.



Phase 1 Clinical Trial Progress – We will be running a formal 'request for proposal' process which we will use to select the best clinical trial site for our Phase 1 study in healthy volunteers. Once we have selected our preferred vendor, we will commence work with them to finalise the protocol and documents required for ethics committee submissions.

Preclinical Safety Studies – Post-capital raise we will be completing our planned preclinical safety studies. The information from these studies will guide us in selecting safe doses to test in the Phase 1 clinical trial scheduled in 2020.

Pancreatic Cancer Study - Pancreatic cancer has the poorest survival outcome of most common cancers and is predicted to become the 4th most common cancer killer by 2030. Peer-reviewed studies carried out by academic researchers clearly demonstrate that blocking FAK in animal models can sensitise pancreatic tumours to existing anti-cancer treatments including chemotherapy. Amplia's ongoing preclinical studies are designed to assist us in selecting optimal drug combinations for evaluation in future clinical trials.

***For further information please email info@ampliatx.com or visit www.ampliatx.com***