



## ASX Announcement

20 August 2020

ASX Market Announcements  
ASX Limited  
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Melbourne VIC 3000

## Progress Update for TPM® Cannabinoid Development Program

**Melbourne, Australia, 20 August 2020** - Avecho Biotechnology Limited (ASX: AVE) ("Avecho" or the "Company"), today announces that it is proceeding to the next phase of the recently announced cannabinoid development program. The decision to move forward was made possible after *in vitro* studies confirmed increased cannabidiol (CBD) dispersibility and solubilisation from TPM® cannabidiol formulations in simulated gastro-intestinal digestions.

As presented to the market in June, Avecho has begun the development of pharmaceutical cannabinoid products combined with its TPM® technology. These products aim to increase the oral absorption of cannabinoids, to overcome limitations associated with poor bioavailability and high variability in absorption, and improve the cost to patients.

This development program consists of three main components; (i) *in vitro* testing in simulated gastro-intestinal digestions, (ii) animal studies to assess *in vivo* bioavailability of candidate formulations, and (iii) subsequent human trials testing the best formulations.

Researchers at Bioneer:FARMA, located within the University of Copenhagen, have completed the first round of formulation testing *in vitro*. Various formulations containing TPM® were assessed for their ability to solubilize CBD during simulated gastro-intestinal digestion. Solubility of drug molecules in the intestinal space is required for absorption, and this *in vitro* model pioneered by researchers at the University of Copenhagen, can predict formulations that produce improved oral bioavailability *in-vivo*.

CBD administered in a commercial formulation vehicle was found to have very poor gastric and intestinal solubility: a finding that correlates well with the poor oral bioavailability reported for CBD in the literature. As predicted, test formulations containing TPM® were found to significantly increase the solubilisation of CBD during gastric and intestinal *in vitro* digestion, suggesting the potential for improved oral bioavailability in animals and patients.

Formulations identified in these experiments are now scheduled for testing in animal studies. These experiments will characterize the CBD absorption profile after oral administration *in vivo*, and identify a formulation to take forward into human testing. The animal studies are scheduled to begin in the coming weeks.

Dr Paul Gavin, Chief Executive Officer of Avecho, said: "We are happy to have successfully passed this first step with a demonstrated increase in drug solubilisation during *in vitro* digestion. The coming months will determine whether this increase in gastro-intestinal solubilisation produces a commensurate increase in oral bioavailability".

Data from both the *in vitro* and *in vivo* animal studies will not only be used to support the clinical development of Avecho's own pharmaceutical products, but also supplementary licensing opportunities for TPM® allowing medicinal cannabis suppliers to differentiate their own products.

**For enquiries, please contact**

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This announcement has been authorised by the Board of Directors of Avecho Biotechnology Limited.

**About Avecho**

Avecho Biotechnology Limited develops and commercialises innovative Human and Animal Health products using its proprietary drug delivery system called Tocopheryl Phosphate Mixture (**TPM®**). TPM® is derived from Vitamin E using unique, proprietary and patented processes and is proven to enhance the solubility and oral, dermal and transdermal absorption of drugs and nutrients.

Avecho's major projects include delivering TPM® enhanced injectable, oral and topical products for the human health market and is also developing TPM® to enhance the feed efficiency and health of livestock.

See more here - [avecho.com.au](http://avecho.com.au)

**Forward-Looking Statements**

Certain statements in this announcement are forward looking statements. Forward looking statements can generally be identified by the use of words such as "anticipate", "estimate", "expect", "project", "intend", "plan", "believe", "target", "may", "assume" and words of similar import. These forward-looking statements speak only as at the date of this announcement. These statements are based on current expectations and beliefs and, by their nature, are subject to a number of known and unknown risks and uncertainties that could cause the actual results, performances and achievements to differ materially from any expected future results, performance or achievements expressed or implied by such forward looking statements.

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