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ACTINOGEN NEW DISCOVERY – NEW PROCESS OF MAKING SHIKIMIC ACID

HIGHLIGHTS

- Actinogen has tested a series of actinomycetes that can synthesize Shikimic acid metabolically. This discovery could compete with the current process involving growing star anise and other methodologies.
- Shikimic acid is a major component used in the production of Tamiflu, one of the main antiviral drugs, that has been in short supply globally over the past decade. Shikimic acid is one of the most expensive components of Tamiflu.
- Actinogen is focusing on developing their process in order to produce Shikimic acid in commercial quantities for use in the construction of shikimic acid based antiviral drugs.

Actinogen Limited (“Actinogen”, ASX:ACW), has discovered a series of actinomycetes that can produce Shikimic acid. Shikimic acid is a main component used in the production of Tamiflu that has on occasion been in short supply globally. The production of Tamiflu is complex and one of the most expensive components is Shikimic acid.

Tamiflu is an oral antiviral treatment that can significantly reduce an influenza virus from spreading inside the human body, if taken within 48 hours of the onset of influenza symptoms. In the event of a pandemic, Tamiflu will be in major demand and will continue to be so globally for use in treating influenza and will be in particular demand in the foreseeable future. In 2006 and 2007, the H1N1 avian influenza became a global concern. The World Health Organization recommends treatment with antiviral drugs within the first 48 hours of symptoms appearing, however at the time, there was a shortage of Tamiflu as governments around the world attempted to stockpile the drug. The H1N1 virus remains a global concern, as do other strains of the influenza virus.

Currently, Shikimic acid is mainly produced from the star anise fruit and from a fermentation process using an *Escherichia-coli* bacterium. The star anise tree only grows under certain climate conditions (humid, hot weather and high altitude) and takes 6 years to mature. The Shikimic acid is then extracted from the pods of the star anise. Thirty kilograms of star anise is required to produce approximately one kilogram of Shikimic acid.

Actinogen is producing Shikimic acid from actinomycetes grown at room temperature in aerobic conditions. As the threat of a global influenza pandemic continues to be a

real possibility, Actinogen is focusing on developing their process in order to produce Shikimic acid in commercial quantities for use in antiviral drugs.

Actinogen is now looking for partners to help develop this process and will keep the market fully informed of all developments as they occur.



Dr David Keast
Scientific Director
Actinogen Limited

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