

AmpliPhi gets notice of allowance on key patent application

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Singapore: AmpliPhi Biosciences, the anti-infective company focused on developing phage-based therapies to combat the growing threat of antibiotic-resistant infection, has received a Notice of Allowance for its US patent application, "Bacteriophage-Containing Therapeutic Agents", from the United States Patent and Trademark Office (USPTO).

The patent application is important to AmpliPhi's patent estate and developing portfolio, as it covers the use of bacteriophage-based therapy for the treatment of infections caused by the bacteria *Pseudomonas aeruginosa* associated with biofilms in effective combination with antibiotics. Examples of specific treatment regimens covered include the treatment of human and animal infections resulting from a skin burn or skin wound, a lung infection, an eye, ear or urinary infection or an infection associated with a medical device or implant. Such infections are difficult to treat as they are often resistant to treatment with currently available antibiotics using standard methods of treatment.

The US patent application includes claims intended to protect the company's method of treating bacterial infection characterized by biofilm where *P. aeruginosa* is present, covering the application of one or more bacteriophage preparations that have one or multiple treatments which target and kill *P. aeruginosa* in the biofilm, at least 24 hours before antibiotic treatment.

Mr Phil Young, CEO of AmpliPhi, said, "Our non-clinical results have indicated that treatment with our bacteriophage preparations before antibiotics are administered can restore the effectiveness of antibiotics that were previously ineffective". He continued "Such a treatment regime could be enormously important in the battle to address the rise of antibiotic resistance and, in particular to treat infections present in biofilms.

The company's lead program, a proprietary mix of bacteriophages, is in late preclinical development for the treatment of *P. aeruginosa* infection of the lung, aimed at patients with Cystic Fibrosis. Biofilms are a major element in infection of the CF lung.

Bacteriophages are naturally occurring viruses that are highly specific for the bacterial hosts they infect. They can rapidly kill their host, amplifying themselves in the process. Bacteriophages are unaffected by antibiotic resistance and are able to disrupt bacterial biofilms. Such biofilms are a major line of defence for bacteria, contributing to antibiotic resistance.

Bacteriophages are able to penetrate biofilms and replicate locally to high levels, to produce strong local therapeutic effects.

The corresponding patent has already been issued in Australia. Further patent applications are undergoing examination in Europe, Canada and Japan. AmpliPhi is committed to protecting its novel therapeutics in key jurisdictions. Further patent applications are under examination, supporting AmpliPhi's work in building a strong intellectual property portfolio around its technology and strengthening its leadership position in the field of bacteriophage based therapies.

AmpliPhi's strategy is to develop a targeted pipeline of therapeutics in-house and to secure collaborations with third parties to maximise the potential of its innovative bacteriophage platform technology.