



## Filing of a Provisional Patent Application: "Method For Treating Liver Related Disease"

Resonance Health Limited (ASX: RHT) ("Resonance Health" or "Company") is pleased to announce that it has filed a provisional patent covering the application of novel Antisense Oligonucleotides (ASOs) to treat liver related disease.

This provisional patent is the result of work done by the Company's Molecular Medicine R&D workstream, which has been running in addition to the Company's Imaging and AI R&D workstreams. Whilst the development of therapies for the treatment of human disease is not the Company's core business, this complementary research project has progressed due to Resonance Health's involvement in measuring biomarkers for human conditions and diseases that affect the liver.

The Company's lead investigator on the project is Dr Sherif Boulos (R&D Manager, Molecular Medicine), an experienced molecular biologist and a previous Group Head with the Western Australian Neuromuscular Research Institute (now known as the Perron Institute).

The novel ASOs were designed to specifically and selectively target a particular human (host) protein essential to the lifecycle of a number of human viruses. In the liver this protein supports the infectivity, growth and maturation of: Hepatitis B Virus (HBV); Hepatitis C Virus (HCV) and; Immunodeficiency Virus Type 1 (HIV-1).

Resonance Health is investigating the use of the novel ASOs as a treatment for Chronic Hepatitis B (CHB) infection. While vaccination can prevent Hepatitis B, globally some 250 million people remain chronically infected, including an estimated 230,000 in Australia (of which 2 out 5 remain undiagnosed)<sup>1</sup>. Up to 25% of people with CHB die from cirrhosis, liver complications, or liver cancer (specifically, hepatocellular carcinoma)<sup>2</sup>. Given that current treatments are unable to completely eliminate the virus and patients require life long care, there is an urgent unmet need to find better medicines.

In laboratory testing, the Company's novel ASOs were shown to significantly reduce the expression of this host protein in HepG2 cells, a model cell-line commonly used in liver research.

Subsequent to further testing, the Company intends to undertake preclinical testing of the most promising compound(s) in a humanised liver-mouse-model of HBV disease. It is anticipated that this phase of the work will be completed within 12 months and, if proven to be efficacious, the Company intends to seek a possible transaction with a third-party for the continued commercial development of the lead compounds.

In addition to CHB, Resonance Health will develop academic collaborations to investigate the potential use of the novel ASOs for the treatment of HIV related viral hepatitis, for HCV (in cases of treatment failure) and in those co-infected with 2 or more viruses.

## **Authorised by:**

This announcement has been authorised for release in accordance with the delegated authority of the Board of Directors of Resonance Health Limited.



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