
R&D Update – Molecular Medicine – ASO Project – Filing of Two Patent Applications

Highlights

- Antisense Oligonucleotide (ASO) RNA Therapeutics R&D Project
- Expansion of IP patent protection for new ASO intellectual property
- Two additional provisional patent applications filed, covering:
 - (i) Method for Treating Cyclophilin B (CYPB) Associated Diseases
 - (ii) Method for Treating Cyclophilin D (CYPD) Associated Diseases
- Previous provisional patent application and PCT covered:
 - (i) Method for Treating Cyclophilin A (CYPA) Associated Diseases

Filing of Two Additional Provisional Patent Applications

Further to its ASO R&D Project announcements on 21 September 2021, 24 May 2021, 17 May 2021, and 25 May 2020, Resonance Health Ltd (ASX: RHT) (“Resonance Health” or the “Company”) advises that it has filed two additional Australian provisional patent applications covering the application of novel Antisense Oligonucleotides (“ASOs”) for the treatment of human diseases (“Additional ASO Patent Applications”).

The Additional ASO Patent Applications have been filed with IP Australia and they follow the Company’s earlier filing of both Australian and international Patent Co-operation Treaty (“PCT”) applications for the ASO R&D Project (ASX releases 25 May 2020 and 24 May 2021). The Additional ASO Patent Applications are a precursor to the filing of substantive PCT applications in due course which, if granted, will have a term of 20 years from the PCT filing date.

The ASO R&D Project is part of the Company’s Molecular Medicine R&D workstream which is led by Resonance Health’s Chief Scientist of Molecular Medicine, Dr. Sherif Boulos. Previous updates on the ASO R&D Project have covered the Company’s development of ASOs for an undisclosed target without mentioning the target by name.

The Company can now disclose that the ASOs are targeting three key members of the ‘cyclophilin’ protein family namely, cyclophilin A (CYPA), cyclophilin B (CYPB), and cyclophilin D (CYPD). Scientific research has consistently validated the medical importance of these proteins across multiple disease groups including microbial diseases, inflammatory disorders, metabolic and fibrotic disorders, neurodegenerative and cardiovascular disorders, and cancer.

In what the Company believes is a world first, Resonance Health has developed this suite of ASO drugs to target these proteins, individually or collectively, as needed to address the disease. With the Company’s clinical and diagnostic experience in the liver and a global network of clinical research

partners, Resonance Health will initially focus on viral-liver-disease, non-alcoholic fatty liver disease (“NAFLD”), liver fibrosis, and liver cancer.

ASO therapeutics fall under the broader molecular medicine study of ribonucleic acid (“RNA”) and deoxyribonucleic acid (“DNA”) molecules and have the benefits of high target specificity and potency. Recent advances in RNA therapeutics have made it possible to directly target the liver with ASO drugs, enabling the administration of lower therapeutic doses at greater efficacy and with an improved safety profile.

The Company looks forward to providing further updates as the ASO R&D Project progresses, including further details concerning the overarching commercial strategy behind this high-potential R&D initiative.

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

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About Resonance Health

Resonance Health is an Australian healthcare technology and services company, specialising in the development and delivery of noninvasive medical imaging software and services.

The Company’s products are used globally by clinicians in the diagnosis and management of human diseases and by pharmaceutical and therapeutic companies in their clinical trials. Resonance Health has gained endorsement by leading physicians worldwide for consistently providing high quality quantitative measurements essential in the diagnosis and management of diseases.

Resonance Health’s dedication to scientific rigour and quality management has enabled it to achieve regulatory clearances for a range of Software as a Medical Device (**SaMD**) products in the USA, Europe, and Australia and to proudly carry ISO 13485 certification for the design and manufacture of medical devices. Some of the SaMD products incorporate the use of Artificial Intelligence (**AI**):

- **FerriScan®** - provides an accurate measurement of liver iron concentration (**LIC**) through a non-invasive MRI-based technology, for use in the assessment of individuals with iron overload conditions. FerriScan® is internationally recognised as the gold standard in LIC assessment.
- **FerriSmart®** - an AI-driven system for the automated real-time measurement of LIC in patients using non-invasive MRI-based technology.
- **HepaFat-AI®** - an AI-driven system for the automated real-time multi-metric measurement of liver fat in patients using non-invasive MRI-based technology, for use in the assessment of individuals with confirmed or suspected fatty liver disease.
- **CardiacT2*** – the most widely accepted MRI based method for assessing heart iron loading. Resonance Health also offers a dual analysis of FerriScan® and CardiacT2*. CardiacT2* has regulatory clearance from the FDA, TGA and CE Mark.

The Company has an active development pipeline of additional medical imaging analysis products and services, including, **LiverSmart™** and **Alert-PE™**, an AI tool for the automated review of chest CT scans of patients with suspected pulmonary embolism.