
Filing of International Application under Patent Co-operation Treaty For Method for Treating Viral, Inflammatory and Malignant Disease

Resonance Health Limited (ASX: RHT) (“Resonance Health” or “Company”) advises that, further to its ‘R&D Update’ announcement on 17 May 2021, it has lodged an international application under the Patent Co-operation Treaty (“PCT Patent Application”) for the use of Antisense Oligonucleotides (“ASOs”) to target a human gene associated with viral, inflammatory, and malignant disease.

The PCT Patent Application, which has been filed with IP Australia, seeks protection for a new method for treating viral, inflammatory, and malignant diseases. If granted, the PCT patent will have a term of 20 years from 19 May 2021. The list of states covered under the PCT is enclosed at Appendix A.

The filing of this PCT Patent Application is the culmination of extensive design, testing, and validation of multiple ASOs over the past twelve months by the Company’s Molecular Medicine R&D team headed by Dr Sherif Boulos (see ASX announcement dated 17 May 2021).

The Company’s ASO project initially investigated the application of specific compounds for use in modulation of Hepatitis B virus (“HBV”). In a preclinical cell model of HBV infection, the lead ASO (“AS3”) demonstrated statistically significant viral suppression compared to a control ASO. Due to this promising data, a dosage study to test its effectiveness in a humanised liver mouse strain will soon commence. If successful, AS3’s effectiveness in an HBV infection model using the same strain will then be assessed.

Chronic Hepatitis B is estimated to affect 292 million people globally, including an estimated 230,000 Australians. Current life-long treatments do not eliminate HBV, and up to 40% of sufferers will develop serious clinical complications such as cirrhosis, liver failure and/or liver cancer. Aside from the human suffering, the healthcare cost of chronic HBV in the USA is estimated to be USD\$100K per patient per annum (U.S. Medicare figures, 2015; cited by Robert Gish MD, Medical Director of the Hepatitis B Foundation).

The filed international PCT Patent Application encompasses the Company’s method for treatment for a number of drug target associated diseases in addition to HBV. Due to the Company’s drug targets’ implication in the progression of multiple diseases, and due to the potentially wide-ranging impact of the possible successful modulation of the Company’s drug target by AS3 or other lead compounds developed by the Company, the expanded application and expansion of the project has been authorised by the Company’s Board of Directors.

The ASO R&D project will now also investigate:

1. The use of AS3 as an antiviral treatment for patients co-infected with HBV and Hepatitis C Virus (“HCV”) and/or Immunodeficiency Virus Type 1 (“HIV-1”);
2. The use of AS3 for the treatment of serious inflammatory disorders, such as non-alcoholic fatty liver disease (“NAFLD”) and in Hepatocellular carcinoma (“HCC”), wherein the drug’s biological target has been found to be substantially expressed in patients with poor outcomes;

3. Evidence implicates a possible role for the Company's drug-target in the life cycle of Coronavirus strains, including those responsible for severe acute respiratory syndrome ("SARS") such as SARS-CoV-2, the causative agent of COVID-19. The Company will explore this further.

Chief Executive Officer, Alison Laws, says:

"Antisense therapies have interesting potential in application to various human diseases and conditions. Dr Boulos and his team are highly experienced designers and researchers, and although this work was initially targeting a particular liver disease, published research provides a body of evidence for the role of the Company's drug target across multiple diseases.

For Resonance Health, the possibility of developing effective therapies at relatively low R&D expenditure is interesting. Internationally, there have been a number of antisense oligonucleotide licencing deals over the last few years, demonstrating market validation of this type of investment. The Company intends to continue work on this project against controlled timelines and budgets and will provide further updates on the project as work progresses."

Authorised by:

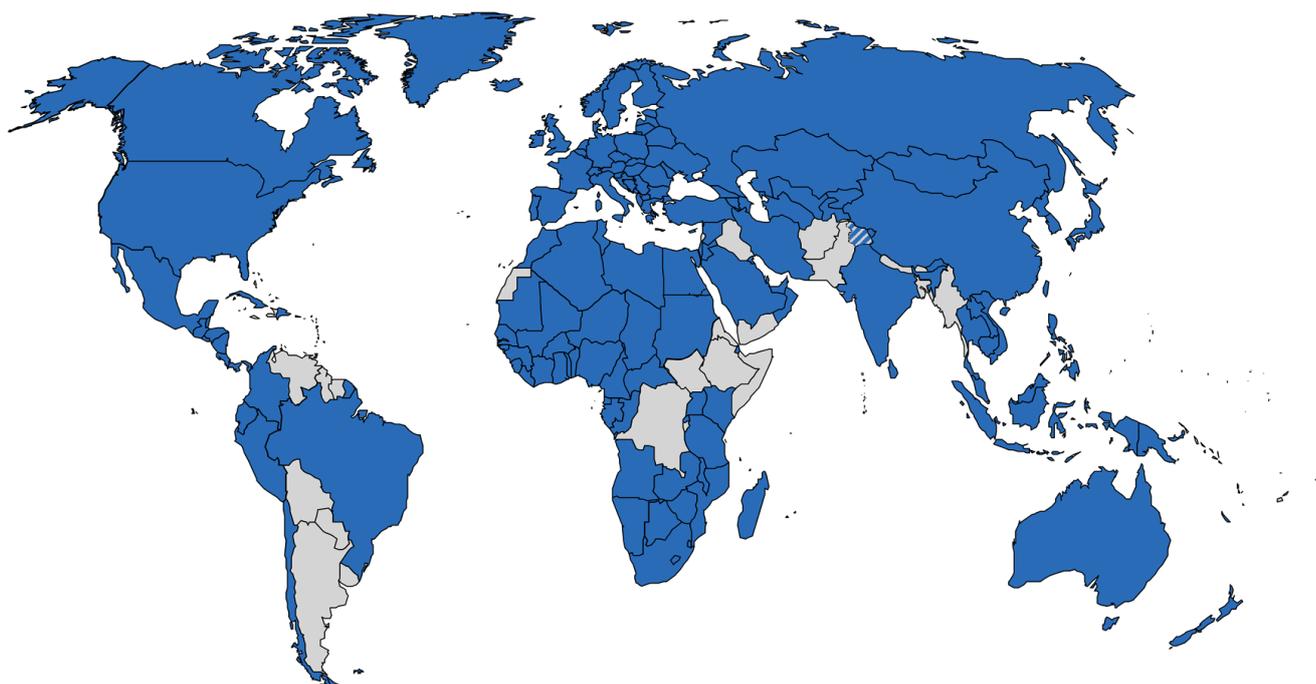
This announcement has been authorised for release in accordance with the delegated authority of the Board of Directors of Resonance Health Limited.

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Annex A

PCT Contracting States and Two-letter Codes (153 on 1 November 2020)



AE United Arab Emirates	CU Cuba	IN India	MK North Macedonia (EP)	SG Singapore
AG Antigua and Barbuda	CY Cyprus (EP) ²	IR Iran (Islamic Republic of)	ML Mali (OA) ²	SI Slovenia (EP) ²
AL Albania (EP)	CZ Czechia (EP)	IS Iceland (EP)	MN Mongolia	SK Slovakia (EP)
AM Armenia (EA)	DE Germany (EP)	IT Italy (EP) ³	MR Mauritania (OA) ²	SL Sierra Leone (AP)
AO Angola	DJ Djibouti	JO Jordan	MT Malta (EP) ²	SM San Marino (EP) ²
AT Austria (EP)	DK Denmark (EP)	JP Japan	MW Malawi (AP)	SN Senegal (OA) ²
AU Australia	DM Dominica	KE Kenya (AP)	MX Mexico	ST Sao Tome and Principe (AP)
AZ Azerbaijan (EA)	DO Dominican Republic	KG Kyrgyzstan (EA)	MY Malaysia	SV El Salvador
BA Bosnia and Herzegovina ¹	DZ Algeria	KH Cambodia ⁴	MZ Mozambique (AP)	SY Syrian Arab Republic
BB Barbados	EC Ecuador	KM Comoros (OA) ²	NA Namibia (AP)	SZ Eswatini (AP) ²
BE Belgium (EP) ²	EE Estonia (EP)	KN Saint Kitts and Nevis	NE Niger (OA) ²	TD Chad (OA) ²
BF Burkina Faso (OA) ²	EG Egypt	KP Democratic People's Republic of Korea	NG Nigeria	TG Togo (OA) ²
BG Bulgaria (EP)	ES Spain (EP)	KR Republic of Korea	NI Nicaragua	TH Thailand
BH Bahrain	FI Finland (EP)	KW Kuwait	NL Netherlands (EP) ²	TJ Tajikistan (EA)
BJ Benin (OA) ²	FR France (EP) ²	KZ Kazakhstan (EA)	NO Norway (EP)	TM Turkmenistan (EA)
BN Brunei Darussalam	GA Gabon (OA) ²	LA Lao People's Democratic Republic	NZ New Zealand	TN Tunisia ⁴
BR Brazil	GB United Kingdom (EP)	LC Saint Lucia	OM Oman	TR Turkey (EP)
BW Botswana (AP)	GD Grenada	LI Liechtenstein (EP)	PA Panama	TT Trinidad and Tobago
BY Belarus (EA)	GE Georgia	LV Latvia (EP) ²	PE Peru	TZ United Republic of Tanzania (AP)
BZ Belize	GH Ghana (AP)	LU Luxembourg (EP)	PG Papua New Guinea	UA Ukraine
CA Canada	GM Gambia (AP)	LY Libya	PH Philippines	UG Uganda (AP)
CF Central African Republic (OA) ²	GN Guinea (OA) ²	MA Morocco ⁴	PL Poland (EP)	US United States of America
CG Congo (OA) ²	GQ Equatorial Guinea (OA) ²	MC Monaco (EP) ²	PT Portugal (EP)	UZ Uzbekistan
CH Switzerland (EP)	GR Greece (EP) ²	MD Republic of Moldova ⁴	QA Qatar	VC Saint Vincent and the Grenadines
CI Côte d'Ivoire (OA) ²	GT Guatemala	ME Montenegro ⁵	RO Romania (EP)	VN Viet Nam
CL Chile	GW Guinea-Bissau (OA) ²	MG Madagascar	RS Serbia (EP)	WS Samoa
CM Cameroon (OA) ²	HN Honduras		RU Russian Federation (EA)	ZA South Africa
CN China	HR Croatia (EP)		RW Rwanda (AP)	ZM Zambia (AP)
CO Colombia	HU Hungary (EP)		SA Saudi Arabia	ZW Zimbabwe (AP)
CR Costa Rica	ID Indonesia		SC Seychelles	
	IE Ireland (EP) ²		SD Sudan (AP)	
	IL Israel		SE Sweden (EP)	

1 Extension of European patent possible.

2 May only be designated for a regional patent (the "national route" via the PCT has been closed).

3 Italy may be designated for a national patent only in international applications filed on or after 1 July 2020.

4 Validation of European patent possible.

5 Only extension of European patent possible. Applicants wishing to obtain patent protection in Montenegro should enter the regional phase before the European Patent Office (EPO) and seek the extension of the European patent application and the granted European patent to Montenegro as there is no national phase before the Intellectual Property Office of Montenegro.

Where a State can be designated for a regional patent, the two-letter code for the regional patent concerned is indicated in parentheses (AP = ARIPO patent, EA = Eurasian patent, EP = European patent, OA = OAPI patent).

Important: This list includes all States that have adhered to the PCT by the date shown in the heading. Any State indicated in **bold italics** has adhered to the PCT but will only become bound by the PCT on the date shown in parentheses; it will not be considered to have been designated in international applications filed before that date.

Note that even though the filing of a request constitutes under PCT Rule 4.9(a) the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents, applicants should always use the latest version of the e-filing software used to generate the request form, or the latest versions of the request form (PCT/RO/101) and demand form (PCT/IPEA/401) (the latest versions are dated 1 July 2020 and 1 July 2019, respectively). The request and demand forms can be printed from the website, in editable PDF format, at: <https://www.wipo.int/pct/en/forms/>, or obtained from receiving Offices or the International Bureau, or, in the case of the demand form, also from International Preliminary Examining Authorities. Where possible, applicants are encouraged to use ePCT-Filing in order to benefit from the most up-to-date PCT data.