

ASX Announcement
Invitrocue Limited (ASX:IVQ)

Launch of ACE-2 HiMice Platform for SARS-CoV-2 / COVID19

Highlights

- Through its 70% owned subsidiary company Invivocue Pte Ltd, IVQ has completed development of ACE-2 Humanised Immune Mice platform
- Currently under validation study with Duke NUS in Singapore
- Expected scientific publication with validation data in coming months
- In research partnership with Pangaea Oncology SA, IVQ secured first commercial pilot contract to supply ACE-2 HiMice to Pharma Mar SA

24 September 2020: Leading Life Sciences company **Invitrocue Limited (ASX: IVQ)**, (**'Invitrocue'**), is pleased to announce the Group, through its subsidiary company Invivocue Pte Ltd (**'Invivocue'**) (As announced on 11 February 2019, Invivocue Pte Ltd is a Joint Venture with Dr Qingfeng Chen who owns 30% while IVQ owns 70%), has completed development of its ACE-2 Humanized Immune Mice (HiMice) platform which enables in-vivo testing of drug and vaccine candidates against SARS-CoV-2 virus or COVID19 disease in lab mice. In addition to be used for the Covid 19 virus, the HiMice can also be used for other virus or disease that targets the Angiotensin-Converting Enzyme 2 (ACE-2) receptor. The research is funded by Singapore government research arm A*STAR with Dr Qingfeng Chen leading the research as part of the Hi-Mice licencing agreement signed with Accelerate Technologies Pte Ltd, an affiliate of A*STAR, on 3 June 2019, which allows Invivocue to make "Enhancement" to Hi-Mice.

The 3 June 2019 licencing agreement is effective for 5 years ending on 3 June 2024 and gives Invivocue a non-exclusive, non-sublicensable, non-transferable licence to use the know-how to generate humanised mice with immune cells ("Technology"), to modify, improve and upgrade the Technology ("Enhancement") and to manufacture, market and sell the systems incorporating the Technology or part thereof ("Licence Product"). Invivocue has to pay a royalty payment of 1% - 2% of gross revenue from the sale of Hi-Mice and upon termination, Invivocue can no longer use the Technology or the Licenced Products, which includes the enhancement made to enable Hi-Mice for testing on Covid 19 virus testing.

ACE-2 HiMice

The ACE-2 or Angiotensin-Converting Enzyme 2 receptor is a protein that provides the entry point for the coronavirus to hook into and infect a wide range of human cells.¹ Using the spike-like protein on its surface, the SARS-CoV-2 virus binds to ACE-2, similar to a key being inserted into a lock, prior to entry and infection of cells.

¹ "Gene: ACE2, angiotensin I converting enzyme 2". National Center for Biotechnology Information (NCBI) (<https://www.ncbi.nlm.nih.gov/gene/59272>)



Hence, ACE-2 acts as a cellular doorway – a receptor – for the virus that causes COVID-19.

IVQ is able to replicate the Human ACE-2 protein in the Humanised Immune mice. This allows for the direct infection of the SARS-CoV-2 virus in the HiMice. In addition, this also allows the ability to study drug or vaccine candidates in the presence of a universal human immune system. The universal human immune system is a standard and repeatable human leukocyte antigen (“HLA”) based model that can replicate different genetic make ups of Asian, Caucasians, Indian etc and genetic variances within each group. These known HLA types will allow us to recreate the immune diversity of main population types around the world without having to make each HiMice unique. This allow drug and vaccine companies to test and yield results across different sub-type groups but with a fairly standardised product.

Validation studies on the research are being conducted and reviewed by Duke-NUS research group and the Singapore National University.

Research Partnership

Invivocue has entered into a partnership with Pangaea Oncology SA (BME:PANG) to supply ACE-2 HiMice to Pharma Mar SA (BME: PHM) for their in-vivo study of vaccine candidate against Covid 19 virus. The in-vivo study will be conducted by Invivocue and coordinated by Pangaea while Pharma Mar will provide the vaccine candidate for the study.

The contract is worth approximately €80,000, and Invivocue expects to receive about €55,000. All intellectual property rights arising out of the study will be owned by Pharma Mar SA. The IP rights to the platform will still be under Accelerate Technologies with Invivocue having the right to use it as mentioned above. The study is expected to be completed by first quarter of 2021. The agreement contains various other provisions considered standard for agreements of this nature.

Both Pangaea Oncology SA and Pharma Mar SA are unrelated public companies listed on the Madrid Stock Exchange (Bolsa de Madrid, BME).

Ends

This announcement has been approved by the board of Invitrocue Limited.

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About Invitrocue (ASX:IVQ)

Invitrocue Limited (ASX:IVQ) is an innovative life sciences company commercializing products and services in Oncology and Pharmacology, based on ground-breaking 3D models and Humanized mice platform.

Headquartered in Singapore and with operations in Australia, China, Hong Kong and Germany, Invitrocue's in-vitro Onco-PDO technology enables patient-derived cancer cells (organoids) to be cultured in laboratories for testing against a panel of drugs to support personalized clinical decisions. In addition, Invitrocue's HiMice novel technology allows for the in-vivo testing of drugs and vaccines using a stable and fully human immune respond.

To learn more, please visit: www.invitrocue.com