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Hard-to-drug targets have become our prime focus

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In conversation with Dr Piers Ingram, Co-founder & CEO at Hummingbird Bioscience



Hummingbird Bioscience, an innovative clinical-stage biotech company with its APAC headquarter in Singapore, is focused on developing precision therapies against hard-to-drug targets via a unique data-driven systems biology approach. On May 18, 2021 the company announced the closure of its US$125 million Series C financing round. The investment strengthens Hummingbird Bioscience's competence to solve complex challenges in antibody development to deliver highly differentiated therapies. Proceeds will essentially support the advancement of Hummingbird's lead assets in clinical trials and the building of its next-generation portfolio of precision biotherapeutics.

Hummingbird has attracted a syndicate of sophisticated investors to enable the acceleration of the company's clinical development activities. The financing was led by Novo Holdings, with significant participation from new investors including Frazier Healthcare Partners, Octagon Capital, EDBI, AMGEN Ventures, DROIA Ventures, Morningside Ventures, Pureos Bioventures, Polaris Partners, Affinity Asset Advisors, Ally Bridge Group and Altrium Capital Management. Existing investors including SK Inc, Heritas Capital, and Mirae Asset Venture Capital also joined the round.

The novel antibody-based therapeutics from Hummingbird Bioscience, reinforced by the 'Rational Antibody Discovery platform', aims to discover high-value antibodies for challenging drug targets. The portfolio of drug candidates under development have transformative potential for patients with cancer and autoimmune diseases.

Proceeds from the financing will be used to advance the clinical development of Hummingbird's lead assets including, HMBD-001, a best-in-class HER3 antibody for NRG1-fusion and HER3-driven tumors, and HMBD-002, a first-in-class anti-VISTA neutralizing antibody for advanced solid tumors. The funds will also be used to expand the capabilities of Hummingbird's proprietary 'Rational Antibody Discovery platform' and progress the development of its next-generation pipeline of precision therapeutics including HMBD-009, a BCMA-TACI dual-specific T cell engager.

Thus, this significant financial participation with leading global healthcare investors will advance the development of a unique pipeline of precision therapies against hard-to-drug targets. Speaking with Biospectrum Asia, **Dr Piers Ingram, Co-founder & CEO at Hummingbird Bioscience** provides additional insights on investment and the company's accelerated clinical development activities.

- **How essential is the progress of precision therapies and hard-to-drug targets in the APAC drug development sector?**

The impetus towards precision medicine is driven both by our ever-deeper understanding of disease biology, as well as the technological advances that have opened up our ability to both discover and develop such therapies. Significantly improved analytical technologies and data-rich computational approaches have emerged and can now be leveraged in combination at an industrial scale. This has really accelerated the growth and interest in precision medicine over recent years.

Hummingbird Bioscience's multidisciplinary approach really sits at the center of this, integrating systems biology and data science to overcome some of the challenges of classical approaches to therapeutics discovery, particularly against 'hard-to-drug' targets. Coupling these insights into biology with biomarker-driven trials, we can better identify the population that can benefit from our investigational drugs.

These approaches and applications of technology have the potential to deliver cost and time efficiencies in drug development, and significantly improve patient outcomes.

- **How significant is this financial partnership with a syndicate of international biotech investors and Novo Holdings leading the Investment round?**

This financing is very significant for Hummingbird as it represents the continued confidence of leading global healthcare investors in our company, our robust scientific approach, validated Rational Antibody Discovery platform, and the potential of our pipeline.

We are also delighted to welcome Kenneth Harrison from Novo Ventures (an affiliate of Novo Holdings) and Dan Estes from Frazier Healthcare Partners to our Non-Executive Board of Directors.

- **Can you provide Hummingbird Bioscience's trajectories on capital allocation and deployment?**

The US$125M Series C investment will allow us to make rapid progress with the clinical development of our lead oncology programs, as well as continue the investment in our early-stage pipeline. We will continue to focus on tackling some of the most challenging and high-value targets in biopharma.

We have joined forces with Cancer Research UK (CRUK), the world's leading cancer charity, to advance our HER3 program, HMBD-001, into clinical trials. In collaboration with our partners, including Tempus, we are harnessing powerful AI-driven analyses of huge patient data sets to identify biomarkers for detecting patients who are likely to respond best to HMBD-001, including those with cancers that harbor NRG1 fusions. We have also aligned with Novogene in a strategic partnership to expand precision medicine testing for individuals with NRG1-fusion driven cancers in China.

For our anti-VISTA antibody program, HMBD-002, we are working with the Cancer Prevention & Research Institute of Texas (CPRIT) who awarded us a US$13.1M grant to support the Phase IA/B clinical trials of HMBD-002, a potential first-in-class anti-VISTA therapeutic antibody for the treatment of VISTA mediated suppression of anti-tumor immunity in solid tumors and lymphomas that are unresponsive to existing therapies.

Funding is also being allocated to the continued development of our oncology portfolio of next-generation antibody assets, including our BCMA-TACI program, HMBD-009.

We also have a co-discovery partnership with Amgen to discover and develop novel therapeutic antibodies in multiple disease indications. This partnership, co-funded by Amgen, will deploy Hummingbird's proprietary Rational Antibody Discovery

platform against multiple challenging and high-value drug targets in drug development.

- **How is the pandemic impacting Hummingbird Bioscience's operational growth?**

While the pandemic brought unique workplace constraints in Singapore and the US, our team at Hummingbird rose to challenge and we have been able to continue to make good progress on our pipeline.

We currently have more than 60 employees across antibody discovery, pharmacology, computational biology, regulatory affairs, CMC, and corporate development. We have a team of scientists in the US and Europe overseeing our key clinical programs and we are setting up the foundations for our China operations. Together, these developments generate a great deal of excitement among our team, partners, and investors and keep morale high.

- **Would you be able to share insights on your commercial strategy and APAC market size for your portfolio?**

We are developing our assets for global markets (US, Europe, and China), and are primarily focused on disease indications where there are no approved therapies, or where most patients become resistant to existing therapies.

As discussed earlier, our development strategy is focused on well-defined patient populations, where we have the highest confidence our investigational drug candidates will bring benefit to patients. For example, for the HMBD-001 program, we are developing in NRG1-fusion driven cancers, a tissue agnostic alteration that occurs in ~0.2 per cent of all solid cancers, and in other tissue-specific cancers where we have a high degree of confidence in our biomarker strategy. These populations add up to tens of thousands of potential patients in total.

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