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ASIA EDITION

PairX Bio launches venture capital backing targeting Cancer immunotherapies

August 18, 2020 | News

Singapore Startup to advance innovative biotechnology built on deep expertise in mRNA splicing biology and proprietary advance precision immunotherapy platform exclusively licensed from Duke-NUS Medical School, Singpaore



Singapore based PairX Bio, a next-generation biotechnology startup focusing on cutting-edge cancer immunotherapies, and Duke-NUS Medical School on 17 August 2020 announced the formation and spinout of the Company from Duke-NUS, where PairX's foundational technologies were developed.

Cancer immunotherapies have already had a transformative impact on patient. Cancer cells express antigens on their surfaces, which can be recognized by immune cells (T cells) and potentiate cancer cell killing. However, major challenges in the field include identifying the antigens being expressed by cancer cells and potentiating T cells to recognize and attack the cancer cells. PairX's unique approaches to identifying these shared antigen and T cell pairs have already been demonstrated and hold promise for solving major unmet needs.

PairX discovers and develops innovative cancer immunotherapies targeting shared tumor-associated antigens derived from aberrantly spliced proteins. The company leverages its differentiated platform built upon deep understanding of mRNA splicing biology, proprietary antigen and T cell validation methods, and patient-derived tumours and data across multiple cancer types. The founding team and investors bring demonstrated track records in cancer drug discovery and biotech company-building towards significant value-creating milestones. PairX has exclusively licensed the intellectual property (IP) from Duke-NUS in partnership with SingHealth, Singapore's largest healthcare group.

The biotech startup is led by scientific founders Dr David M. Epstein, Founder and CEO of Black Diamond Therapeutics, a precision oncology medicine company, and Adjunct Associate Professor at Duke-NUS' Cancer & Stem Cell Biology (CSCB) programme, and Dr Raymond Lee, Research Fellow at Duke-NUS' CSCB programme. PairX was incubated by Esco Ventures, and the founding investors of the Company are Esco Ventures and Avendesora, an investment company represented by Mr Jeffrey Lu.

"Duke-NUS, Esco Ventures, Avendesora and the PairX founding team are partnering to commercialise our platform and pipeline of novel cancer antigen–T cell pairs. This seed financing uniquely positions PairX to advance precision immunotherapies designed to treat cancer patients defined by shared mRNA splicing defects," said Adj Assoc Prof Epstein.

Central to the commercial stewardship of Duke-NUS' technological innovations, including the IP licensed to PairX, is Duke-NUS' Centre for Technology & Development (CTeD), which provides a full suite of commercialisation-focused services to budding inventors and entrepreneurs among its research rank and file. These include due diligence and IP filing services, identification of suitable partners, negotiation of financial and legal agreements, and other business-focused expertise to ultimately support Duke-NUS IP licensing and spin-outs, such as PairX.

Dr Cheryl McCaffery, Director of CTeD, Duke-NUS Medical School said: "This is the 14th significant deal closed by CTeD, and the ninth start-up company, founded by our Investigators, to which CTeD has facilitated the granting of licences to NUS IP rights arising from our research programmes. We wish PairX every possible success."

Prof Patrick Casey, Senior Vice Dean for Research, Duke-NUS Medical School, said: "Key to our 'bench to bedside' approach to healthcare transformation in partnership with SingHealth is the kind of commercialization exemplified by this spinout".

Image Caption: *left to right are Mr XQ Lin, Managing Partner of Esco Ventures X; Dr Raymond Lee, Scientific Founder, PairX, Research Fellow at Duke-NUS' Cancer & Stem Cell Biology (CSCB) programme; Mr Jeffrey Lu, Avendesora, representative of investment firm Avendesora; and and Dr David M. Epstein, Scientific Founder, PairX, and Adjunct Associate Professor at Duke-NUS' CSCB programme, who is also Founder and CEO of Black Diamond Therapeutics, a precision oncology medicine company.*