# HCW Biologics' TGF-β Trap and IL-15 Fusion is a Novel Moiety to Enhance Immunotherapeutic Activity against Diseased Cells

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*Human studies show that the TGF-β trap and IL-15 fusion used alone promotes expansion of progenitor CD8$^+$ T cells and NK cells*

*Company has incorporated the TGF-β/IL-15 moiety into the constructs of its second-generation fusion immunotherapeutics constructed with novel TRBC drug development platform*

MIRAMAR, Fla., Aug. 25, 2026 (GLOBE NEWSWIRE) -- HCW Biologics Inc. (the "Company" or "HCW Biologics") (NASDAQ: HCWB), a U.S.-based clinical-stage biopharmaceutical company focused on developing novel fusion immunotherapeutics to treat autoimmune diseases, cancer, and senescence-associated dysplasia, together with collaborators at leading research institutions, have identified a TGF-β trap and IL-15 fusion as a novel moiety with potential applications against diseased cells and viral infections. Human studies showed that the TGF-β trap and IL-15 fusion promoted expansion of progenitor CD8$^+$ T cells and Natural Killer ("NK") cells, provided clinical benefit, and was well tolerated in cancer patients. In addition, the fusion demonstrated activity against HIV-1 and bronchopulmonary dysplasia in highly stringent, relevant animal models. Several publications in leading scientific journals include extensive human and animal study data regarding the TGF-β trap and IL-15 fusion (see References below).

The Company has incorporated these ground-breaking discoveries into its second-generation T Cell Engager ("TCE") and Immune Checkpoint Inhibitor ("ICI") programs, created with its TRBC drug development platform, to strengthen anti-tumor activity and help address the effects of senescent cell accumulation. Its lead product candidate in the TCE Program, HCW11-018b, combines a TGF-β trap and IL-15 fusion with a tissue-factor-targeting BiTE (Bispecific T-cell Engager). This design provides IL-15-driven immune stimulation while using the TGF-β trap to counter immunosuppression and poor T-cell infiltration in solid tumors. HCW11-040, lead candidate of the Company's second-generation ICI program, is a unique combination of pembrolizumab, a generic form of Keytruda®, and the added-on TGF-β/IL-15 moiety, which has demonstrated superior immune-cell activation, expansion, tumor infiltration, and cytotoxicity against cancer cells and tumors compared with pembrolizumab in in-vitro and in-vivo preclinical studies. Both molecules are at IND-enabling stage, and the Company plans to initiate clinical studies in 2027.

Dr. Hing C. Wong, the Company's Founder and Chief Executive Officer, stated, "HCW Biologics is the leader in creation of multi-valent immunotherapeutics with a unique protein-based scaffold, without the antibody Fc domain. By leveraging our ground-breaking discovery of the novel properties of the TGF-β/IL-15 fusion moiety and incorporating it into our second-generation fusion molecules, we have demonstrated enhanced therapeutic activity over traditional immune checkpoint inhibitor- and BiTE-based approaches. We believe our novel multi-valent immunotherapeutics could revolutionize the immunotherapy field, especially against cancers and senescence-associated dysplasia."

KEYTRUDA® is a registered trademark of Merck Sharp & Dohme LLC, a subsidiary of Merck & Co., Inc. and the company is not affiliated with HCWB.

**Articles Referenced in Press Release:**

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Lamcaj S…Wong HC, Goldstein H.*Enhancing HIV-1-specific CAR-T cell functional activity by treatment with a novel cytokine-based scaffold with IL-15 superagonist and TGF-β-neutralizing activity*. J Virol. 2026 Aug 14:e0005126. doi: 10.1128/jvi.00051-26.

Declan J. Gainer…Hing C. Wong, Duncan J Stewart, Nicolle J. Dominik, Mark L. Ormiston.*Natural killer cell TGF-β signaling regulates senolytic activity and vascular patterning in the postnatal lung.* bioRxiv 2025.08.29.673190; doi: https://doi.org/10.1101/2025.08.29.673190.

**About HCW Biologics:**

HCW Biologics Inc. (the "Company") (NASDAQ: HCWB) is a clinical-stage biopharmaceutical company developing transformative fusion immunotherapeutics to treat diseases promoted by chronic inflammation, including autoimmune diseases, cancer, and senescence-associated dysplasia. The Company's immunotherapeutics represent a new class of drugs that it believes have the potential to fundamentally change the treatment of proinflammatory and senescence-associated diseases and conditions that are promoted by chronic inflammation —and in doing so, improve patients' quality of life and possibly extend longevity. A key aspect of the Company's clinical development and financing strategy is to focus on its business development programs, including its commercial-ready reagents to be used in the production of immunotherapeutics for cancer and infectious diseases. To date, the Company has entered into two licensing agreements in which it has licensed exclusive, worldwide rights for some of its proprietary molecules. See the Company Pipeline at https://hcwbiologics.com/pipeline/

**Forward Looking Statements:**

Statements in this press release contain "forward-looking statements" that are subject to substantial risks and uncertainties. These statements are made under the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements contained in this

press release may be identified by the use of words such as “anticipate,” “expect,” “believe,” “will,” “may,” “should,” “estimate,” “project,” “outlook,” “forecast” or other similar words and include, effectiveness of the TGF-β Trap and IL-15 fusion against diseased cells and viral infections; TGF-β and IL-15 fusion on improving the function of the Company’s other fusion immunotherapeutics; the actual success and potency of the Company’s T-Cell engager, HCW11-018b; the ability of HCW11-018b to treat solid tumors; whether HCW11-018b is well-tolerated in cancer patients; the potency and success of the Company’s second generation immune checkpoint inhibitor, HCW11-040, and the ability of HCW11-040 to treat bronchopulmonary dysplasia and cancer; and HCW11-040’s superior performance to Keytruda® and its ability to block the checkpoint receptors and engage the costimulatory receptors. Further, certain forward-looking statements are based on assumptions as to future events that may not prove to be accurate. Factors that could cause actual results to differ include, but are not limited to, the risks and uncertainties that are described in the section titled “Risk Factors” in the annual report on Form 10-K filed with the United States Securities and Exchange Commission (the “SEC”) on March 31, 2026 and in other filings filed from time to time with the SEC.

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