

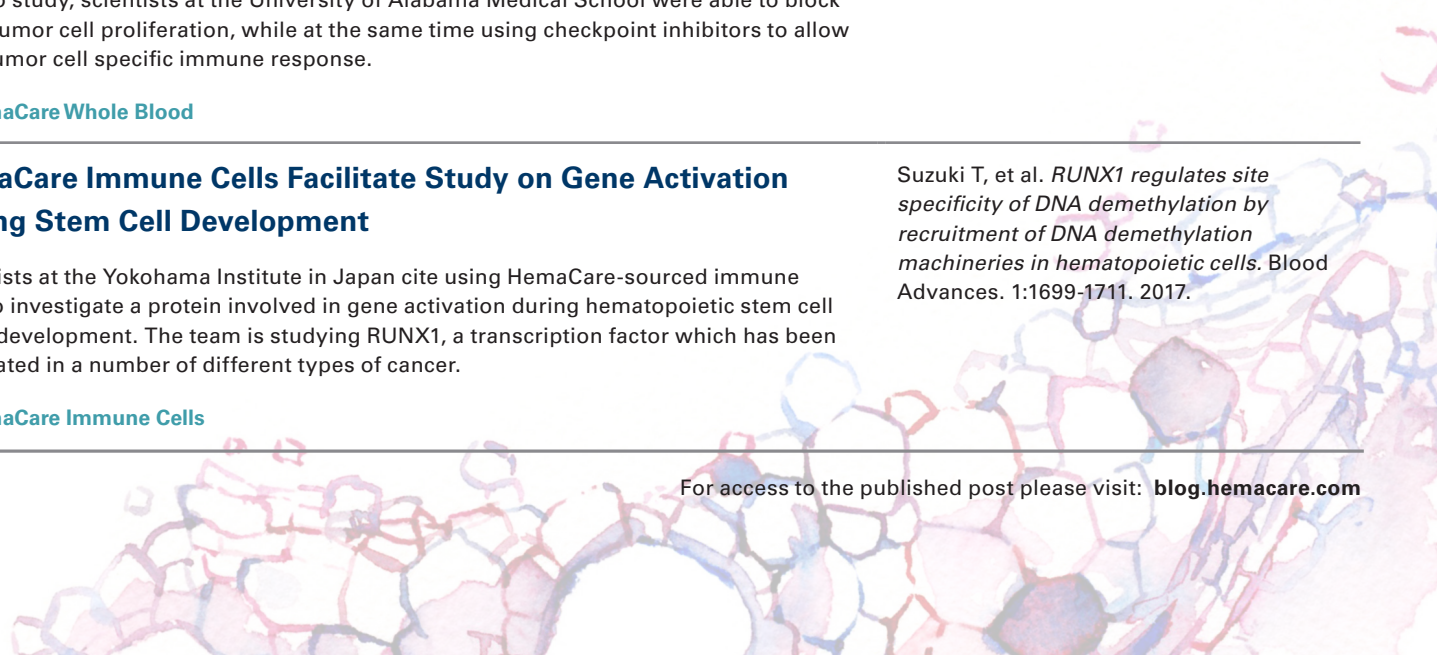
HemaCare Starting Material Cited in Cancer Research

HemaCare high-quality human primary cells have been adopted by thousands of researchers worldwide. Here is a select list of cancer related publications that have incorporated HemaCare products into their cancer research studies.

Cancer Research

Study Summary	Publication
<p>New Cancer Immunotherapy Approach Seeks to Supercharge T-Cell Activity</p> <p>An independent study published by MedImmune/AstraZeneca cites the use of HemaCare leukopaks to assist in the development of a novel approach to treating cancer. The new technique is based on an engineered protein named MEDI6383, and preliminary studies of its efficacy against cancer have been promising enough to launch a Phase 1 clinical trial.</p> <p>► HemaCare Leukopaks</p>	<p>Oberst MD, et al. Potent Immune Modulation by MEDI6383, an Engineered Human OX40 Ligand IgG4P Fc Fusion Protein. <i>Molecular Cancer Therapeutics</i>. 17(5); 1024–38. May 2018.</p>
<p>Versatility and Specificity of CAR-T Cell Cytokines</p> <p>Novartis researchers cite using HemaCare peripheral blood mononuclear cells (PBMCs) as starting material for their CD19-targeted T-cells. The researchers used the cells to study the relationship between CD19 CAR-T cytokine response profiles and patient response and outcomes.</p> <p>► HemaCare PBMC Cells</p>	<p>Xue, Q., Bettini, E., Paczkowski, P., Ng, C., Kaiser, A., & McConnell, T. et al. <i>Single-cell multiplexed cytokine profiling of CD19 CAR-T cells reveals a diverse landscape of polyfunctional antigen-specific response</i>. Journal for Immunotherapy of Cancer, 5(1). 2017.</p>
<p>HemaCare Starting Material Aids Discovery of New Brain Tumor Treatment Strategy</p> <p>HemaCare whole blood samples were used to investigate a novel cancer therapy based on blocking immune suppression while simultaneously promoting T-cell activity. In their ex-vivo study, scientists at the University of Alabama Medical School were able to block brain tumor cell proliferation, while at the same time using checkpoint inhibitors to allow for a tumor cell specific immune response.</p> <p>► HemaCare Whole Blood</p>	<p>Filippova N., et al. <i>Blocking PD1/PDL1 Interactions Together with MLN4924 Therapy is a Potential Strategy for Glioma Treatment</i>. J Cancer Sci Ther. 10: 190–197. 2018.</p>
<p>HemaCare Immune Cells Facilitate Study on Gene Activation During Stem Cell Development</p> <p>Scientists at the Yokohama Institute in Japan cite using HemaCare-sourced immune cells to investigate a protein involved in gene activation during hematopoietic stem cell (HSC) development. The team is studying RUNX1, a transcription factor which has been implicated in a number of different types of cancer.</p> <p>► HemaCare Immune Cells</p>	<p>Suzuki T, et al. <i>RUNX1 regulates site specificity of DNA demethylation by recruitment of DNA demethylation machineries in hematopoietic cells</i>. Blood Advances. 1:1699-1711. 2017.</p>

For access to the published post please visit: blog.hemacare.com



T-Cell Therapy Development Studies Rely on HemaCare Leukopaks to Facilitate Donor Sourcing

A Lead Technical Scientist at a European based-cell therapy company describes how HemaCare sourced leukopaks are crucial to their T-cell therapy development studies. Human leukapheresis products are largely unobtainable in Europe, so cancer immunotherapy starting material must be sourced from the United States. Leukopaks are obtained from donors whose profile closely matches that of the patient who will receive the cellular therapeutic.

► [HemaCare Leukopaks](#)

HemaCare Case Study. *T-Cell Therapy Development Studies Rely on HemaCare Leukopaks to Facilitate Donor Sourcing*. June 2018.

HemaCare Memory B Cells Recall Their Primary Function

Immunospot scientists cite using B cells isolated from HemaCare-sourced PBMCs for their studies on post-cryopreservation functionality. Patients who receive cancer immunotherapy are monitored for recovering immune function. Immunospot researchers hope to be able to detect the presence of newly activated B cells in cryopreserved PBMC samples, rather than having to rely on freshly isolated PBMCs for monitoring.

► [HemaCare PBMC Cells](#)

Fecher P., et al. *B cells and B cell Blasts Withstand Cryopreservation While Retaining Their Functionality for Producing Antibody*. *Cells*. 7(50). May 2018.

Precision Immunotherapy Program at Argos Therapeutics Utilizes HemaCare Leukopak Products for their Therapeutic Cell Manufacturing Workflow

Dr. Miesowicz cites the use of HemaCare leukopak products in Argos's CAR-T cell manufacturing workflow during clinical studies investigating a treatment for renal cancer. The company he presently works with, SpecificiT, also sources their starting material from HemaCare, specifically for the reliability afforded by HemaCare's extensive donor network, and the ability to coordinate and customize development efforts. SpecificiT is working to develop a treatment for hematopoietic blood cancers.

► [HemaCare Leukopaks](#)

HemaCare Case Study. *Precision Immunotherapy Program at Argos Therapeutics Utilizes HemaCare Leukopak Products for their Therapeutic Cell Manufacturing Workflow*. January 2018.

HemaCare Immune Cells Ace Cytotoxicity Assay used to Screen Therapeutic Antibodies

In an independent study recently published by Pfizer, natural killer (NK) immune cells sourced from HemaCare were evaluated to test how well suited they are for use in cytotoxic activity assays.

► [HemaCare Primary NK Cells](#)

Hsieh Y, et al. *Characterization of FcγRIIIA effector cells used in in vitro ADCC bioassay: Comparison of primary NK cells with engineered NK-92 and Jurkat T-cells*. *Journal of Immunological Methods*. 441; 56-66. Feb. 2017.

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