**The dataset represents data from the study by Sobecks et al. “*Cytomegalovirus* Reactivation After Matched Sibling Donor**

**Reduced-Intensity Conditioning Allogeneic Hematopoietic**

**Stem Cell Transplant Correlates With Donor Killer**

**Immunoglobulin-like Receptor Genotype”. *Exp Clin Transplant* 2011; 1: 7-13.**

**Dataset: CMV**

Hematopoietic stem cell transplantation (HSCT) is the transplantation of multipotent hematopoietic stem cells, from bone marrow, peripheral blood, or umbilical cord blood. It is a medical procedure most often performed for patients with certain cancers of the blood or bone marrow, such as multiple myeloma or leukemia. Allogeneic HSCT involves two people: the (healthy) donor and the (patient) recipient. Allogeneic HSC donors must have a tissue (HLA) type that matches the recipient. In myeloablative allogeneic HSCT, chemotherapy or irradiation is given immediately prior to a transplant (the *conditioning regimen*) with the purpose of eradicating the patient's disease prior to the infusion of HSC and to suppress immune reactions. The bone marrow can be ablated (destroyed) with dose-levels that cause minimal injury to other tissues. For many patients who are at high risk for transplant-related mortality with myeloablative allogeneic HSCT, reduced-intensity conditioning allogeneic hematopoietic stem cell transplant has proven effective. Although the reduced-intensity conditioning allogeneic HSCT may avoid many of the organ toxicities associated with myeloablative conditioning, the risk for developing graft-versus-host disease and infection including *cytomegalovirus* remains significant.

Cytomegalovirus (CMV) is the most-common viral infection after allogeneic HSCT. Natural killer (NK) and T cells provide protection against CMV reactivation. The reactivity of NK cells and some T-cell subsets are regulated by the interaction of killer immunoglobulin-like receptors (KIRs) with target cell HLA class 1 molecules. The donor activating KIR genotype has been implicated as a contributing factor for CMVreactivation after myeloablative allogeneic HSCT. This study investigates whether donor KIR genotypes also influence reactivation of CMVafter T-cell replete, matched sibling donor reduced-intensity conditioning allogeneic HSCT.

The study included 64 consecutive patients who underwent T-cell replete, matched sibling donor reduced-intensity conditioning allogeneic hematopoietic stem cell transplant between January 16, 2000 and April 24, 2007 at the Cleveland Clinic. CMV reactivation was defined as any detection of cytomegalovirus DNA in the blood; the lower detection limit for this assay was 600 copies/mL. Human leucocyte antigen (HLA) typing on donors and recipients was performed to allow assessment of killer immunoglobulin-like receptor ligands.