

# IL-2 promotes early Treg reconstitution after allogeneic hematopoietic cell transplantation

Phase II study between 4/16/2014-12/19/2015

After HLA matched related or unrelated allogeneic hematopoietic cell transplantation



- 13 Acute myeloid leukemia
- 2 Myelodysplastic syndrome
- 1 Chronic myeloid leukemia
- 4 Acute lymphoblastic leukemia

Interleukin-2 (200,000IU/m<sup>2</sup> thrice weekly, days 0 to +90)  
+  
 Sirolimus (5-14ng/ml)  
+  
 Tacrolimus (3-7ng/ml)



day 30

Adding interleukin-2 to sirolimus/tacrolimus significantly increased regulatory T-cells

Interleukin-2/sirolimus/tacrolimus



% regulatory T-cells

23.8%

Sirolimus/tacrolimus



(P=0.0016)

16%



day 90

Adding interleukin-2 to sirolimus/tacrolimus leads to a fall in regulatory T-cells and no reduction of acute or chronic graft-versus-host disease

The accumulation of interleukin-2 receptors in circulation over time may neutralize interleukin-2