

Non Technical Abstract

CML is a lethal leukemia which can be cured by treating the patient with chemotherapy and infusing normal stem cells from a donor (transplant). For patients who do not have a donor, we propose to use their own normal stem cells that can be collected from the blood after the patient receives chemotherapy. Since recurrence of the disease is likely, we will tag the stemcells that are reinfused at the time of transplant (graft) with a gene. This will allow us to determine if the leukemia that grows back after transplant is coming from the graft, since presence of the tag in the leukemia after transplant will demonstrate that the leukemia was reinfused.