B-cell precursor abnormalities in childhood acute lymphoblastic leukemia

1. The majority of relapses in children with B-cell precursor acute lymphoblastic leukemia occurs in cases with a BCR-ABL1-like signature and/or a deletion in IKZF1. (this thesis)
2. A BCR-ABL1-like signature and IKZF1 deletions are independent prognostic features in children with B-cell precursor acute lymphoblastic leukemia. (this thesis)
3. Good-risk BCR-ABL1-positive B-cell precursor acute lymphoblastic leukemia cases with wild-type IKZF1 have a favorable prognosis. (this thesis)
4. All IKZF1 deletion variants are correlated to an unfavorable clinical outcome in children with B-cell precursor acute lymphoblastic leukemia. (this thesis)
5. TCF3-rearranged leukemic cells are characterized by an abnormal pre-B cell receptor signaling pathway that can be inhibited by Ibrutinib. (this thesis)
6. “The extremely poor survival after relapse underscores the need to focus on improving the outcome of primary therapy for these patients who are unlikely to be salvaged if they relapse. Promising new therapies should be rapidly integrated into trials for subsets of higher risk patients at initial diagnosis.” (K Nguyen, et al. Leukemia 2008)
7. “One of the most difficult challenges that oncologist face treating acute lymphoblastic leukemia in the frontline setting is early identification of patients who are going to fail current therapies before they relapse, rather than after they relapse. Understanding the biology is a key to that.” (JA Whitlock, Current Opin Oncol, 2013)
8. “Global gene-expression profiling has the potential to reveal new dimensions of the pathologic features of acute lymphoblastic leukemia and to identify novel therapeutic targets.” (CH Pui, New Engl J Med 2006)
9. “Certainly, the hypothesis that IKZF1 deletion-associated adverse outcome would be a reflection of underlying genomic instability in aggressive leukemic clones, rather than lost or diminished IKAROS function caused by IKZF1 haploinsufficiency, as originally proposed merits further investigation.” (C Palmi, et al. Haematologica 2013)
10. “Het leven is kort, de kunst duurt lang.” (Hippocrates of Cos, 460 – 370 BC)
11. “Icarus, zorg dat je in het midden van de lucht vliegt, als je lager zal gaan, zal het water jouw veren zwaarder maken, en als je hoger zal gaan, zal de zon jouw veren verschroeien.” (Ovidius, Metamorphoses VIII, sentence 203-216, AD 8)