Relevance of Signal Transduction Pathway Mutations in Pediatric T-ALL

1. TLX3-rearranged T-ALL is associated with strongly activating NOTCH1 mutations whereas the incidence of NOTCH1-activating mutations is reduced in TAL1- or LMO2-rearranged pediatric T-ALL patients. (this thesis)

2. Some seemingly wild-type NOTCH1 or FBXW7 T-ALL patients express an activated NOTCH1-driven expression signature, implying that not all NOTCH1-activating mutational mechanisms have been revealed yet. (this thesis)

3. PTEN/AKT mutations and NOTCH1-activating mutations are nearly mutual exclusive genetic events in pediatric T-ALL that are each associated with specific T-ALL genetic subtypes. (this thesis)

4. Micro-deletions represent a novel, RAG-mediated PTEN inactivational event in pediatric T-cell leukemic cells and thymocytes of healthy individuals. (this thesis)

5. The immature T-ALL subtype as identified by unsupervised gene expression profiling analysis, is strongly predicted by the early T-cell precursor ALL gene signature and thus both reflect a single disease entity. (this thesis)

6. A uniform prognostic factor for pediatric T-ALL has not been identified yet.

7. RAG activity is associated with a developing immune system in children and thus may explain the increased incidence of lymphatic leukemia in children compared to adults.

8. Biologists typically concentrate on fold change, statisticians on p-value.

9. Great discoveries and improvements invariably involve the cooperation of many minds. (Alexander Graham Bell)

10. Don't let perfection get in the way of progress. (Tony Bombacino)

11. Er zijn meer volwassenen bang in het licht, dan kinderen in het donker. (van Kooten en de Bie)