

## Stellingen

Behorend bij het proefschrift

### **Genetic program controlled by LDB1, TAL1 and GATA2 in hemangioblast development**

1. The generation of embryoid bodies from embryonic stem cells is a useful tool to study embryonic development and cell differentiation. (this thesis)
2. *Ldb1* is an upstream transcriptional regulator of hematopoietic/endothelial development, affecting transcription factors and signaling pathways essential for hemangioblast commitment and differentiation. (this thesis)
3. MAPK-ERK and IGF1R pathways are involved in the commitment of embryonic mesoderm towards either hemato-endothelial or cardiac lineages. (this thesis)
4. *Ldb1*, *Tal1* and *Gata2* as a complex regulate the commitment of hemangioblast towards the hematopoietic lineage. (this thesis)
5. The Gata-switch process between *Gata2* and *Gata1* is designed to ensure a proper regulation of genes encoding for essential hematopoietic regulator throughout the developmental process. (this thesis)
6. Interaction among transcription factors can be specific to context and condition, resulting in a unique transcriptional program. (Weingarten-Gabby, Hum.Gen.,2013)
7. It is of great importance to develop efficient and controllable induction strategies to drive hematopoietic differentiation from ES/iPS cells prior to the realization of pluripotent cell-derived therapies. (Lim et al., Stem Cell Research and Therapy, 2013)
8. Imagination is more important than knowledge. (Albert Einstein)
9. In the long history of humankind (and animal kind, too) those who learned to collaborate and improvise most effectively have prevailed. (Charles Darwin)
10. The world is a thing of utter inordinate complexity and richness and strangeness that is absolutely awesome. (Douglas Adams)
11. We are just an advanced breed of monkeys on a minor planet of a very average star. But we can understand the universe. That makes us something very special. (Stephen Hawking)

Andrea Martella, February 25<sup>th</sup> 2014