STELLINGEN BEHORENDE BIJ HET PROEFSCHRIFT: Sox2 in Embryonic Stem Cells and Lung Development Sox2 expression in the airway epithelium must be tightly regulated for proper lung 1. branching morphogenesis to take place. (this thesis) 2. Sox2 overexpression in the airway epithelium induces an increase in the number of pulmonary neuroendocrine cells. (this thesis) 3. Exportin 4 acts as a nuclear import receptor for Sox2 and SRY. (this thesis) 4. The identification of multiple import pathways for Sox2 makes it unlikely that its nuclear localization is regulated at the level of the import receptor. (this thesis) 5. Sox2 interacts with many factors in embryonic stem cells, which likely affect its specificity as a transcriptional regulator. (this thesis) 6. The X chromosome inactivation process is stochastic and is initiated by an X-encoded activator. (Monkhorst et al., Cell 2008) 7. "In the long history of humankind (and animal kind, too) those who learned to collaborate and improvise most effectively have prevailed." Charles Darwin 8. "Once, people with disfiguring or bizarre mutations were thought monstrous. Now they give vital clues to the dance of genes during the body's growth." Matt Ridley (about the book Mutants by Armand Marie Leroi) 9. "The most exciting phrase to hear in science, the one that heralds new discoveries, is not "Eureka!" ("I found it!") but rather "hmm....that's funny..."" Isaac Asimov 10. Induced pluripotent stem cells have great potential in regenerative medicine but at present can not substitute for research on human embryonic stem cells. 11. "When we travel life's roads with those we love, the point of destination is always secondary to the quality of the journey." Mary Prince Cristina Gontan