

## **Stellingen**

behorende bij het proefschrift

### **Cancer and inflammation studies using zebrafish cell lines**

1. Human oncogenes can be expressed and activated in zebrafish cells in an inducible manner so that the cellular transformation can be controlled according to spatial and temporal requests. (This thesis)
2. It is surprising that flagellin stimulation activates NF $\kappa$ B in several zebrafish cell lines which are not related to the immune system. (This thesis)
3. It is possible to use cell lines derived from zebrafish liver to model human hepatocellular carcinoma. (This thesis)
4. Application of transcriptomic and kinomic approaches to zebrafish cell lines allows systematic analysis of the cellular role of specific signaling pathways. (This thesis)
5. Allo-transplantation of zebrafish cell lines into transparent zebrafish embryos will bridge basic biology research at the levels of molecules, cells, tissues, and the entire organism, which will improve our understanding of cancer and inflammation.
6. Despite more than 300 million years of phylogenetic separation between fish and human, the basic molecular biology of cancer is very much the same throughout vertebrates. (Siew Hong Lam and Zhiyuan Gong, *Cell Cycle*, Mar 2006, 573-577)
7. The mitogenic actions of individual oncoproteins can be exploited by the cell only when their inherent growth-inhibitory properties are quelled by collateral signals. (Gerard I. Evan, *Cancer Cell*, Nov 2006, 345-347)

8. Toll-like receptor signaling may play a critical role in the crosstalk between tumor cells and bone marrow-derived cells during premetastatic niche formation, and the NF $\kappa$ B transcription factors in the premetastatic niche could function to prepare a metastatic-like environment for primary tumor cells. (Héctor Peinado, Shahin Rafii and David Lyden, *Cancer Cell*, Nov 2008, 347-349)
9. The MEK kinase activity of Raf-1 is not always required for the essential functions of this protein in survival and motility. (Manuela Baccarini, *FEBS Letters*, Jun 2005, 3271-3277)
10. It's the detail that actually makes sure the experiment works or doesn't work. (Mario Capecchi, Stockholm, 2009)
11. Exploring science is like living a good life, full of unexpected treasures of art and philosophy.
12. Opportunities are not found by chance, but by scientists who are prepared to find them.
13. Artistic data presentation brings science to life.