

STELLINGEN BEHORENDE BIJ HET PROEFSCHRIFT

**Genetic alterations during neoplastic progression in
Barrett's esophagus**

Proefschrift

**ter verkrijging van de graad van doctor aan de
Erasmus Universiteit Rotterdam
op gezag van de**

Rector Magnificus

Prof.dr.ir. J.H. van Bommel

en volgens besluit van het College voor Promoties.

De openbare verdediging zal plaatsvinden op

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door

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geboren te Quiqihar, China



1. There are more similarities than differences between cell division and differentiation of cancer cells and normal cells.
2. Most, if not all, cancers have acquired the same set of functional capabilities during their development, albeit through various mechanistic strategies.
3. The earliest genetic alterations in the carcinogenesis of Barrett's adenocarcinoma occur in metaplasia.
4. The most important mechanism for p16 gene inactivation is DNA hypermethylation in its promoter region.
5. Telomerase or another mechanism for telomere maintenance is required for continuous tumor cell proliferation.
6. In the near future, histopathological definitions of tumors will be modified on the basis of genomic and gene expression patterns.
7. The molecular mechanisms involved in the development of Barrett's esophageal adenocarcinoma differ from those in colorectal carcinogenesis.
8. Genetic instability in human cancer exists at two distinct levels: nucleotide level and chromosomal level; different mechanisms are involved.
9. Disruption of the intracellular pathways regulated by large-T antigen, oncogenic ras and telomerase suffices to create a human tumor cell.
10. TGF- β plays various roles in the process of malignant progression. It is a potent inhibitor of normal stromal, hematopoietic, and epithelial cell growth. However, in the later stages of cancer TGF- β is secreted by tumor cells and contributes to cell growth, invasion, and metastasis and decreases host-tumor immune responses.
11. The concept of traditional Chinese medicine, illness as a disturbance of Yin and Yang, has no scientific basis, which does not mean that it has no significance.

