

# Translational control during hypoxia: consequences for gene expression and hypoxia tolerance

## Citation for published version (APA):

van den Beucken, A. M. (2008). *Translational control during hypoxia: consequences for gene expression and hypoxia tolerance*. Universiteit Maastricht.

## Document status and date:

Published: 01/01/2008

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

[www.umlib.nl/taverne-license](http://www.umlib.nl/taverne-license)

## Take down policy

If you believe that this document breaches copyright please contact us at:

[repository@maastrichtuniversity.nl](mailto:repository@maastrichtuniversity.nl)

providing details and we will investigate your claim.

**Stellingen  
behorende bij het proefschrift**

**Translational control during hypoxia:  
consequences for gene expression  
and hypoxia tolerance**

1. Regulation of mRNA translation strongly influences gene expression during hypoxic conditions (this thesis).
2. Global inhibition of mRNA translation paradoxically stimulates translation of specific mRNA transcripts (this thesis).
3. Substantial cross-talk exists between transcriptional programs elicited during hypoxia and translational control (this thesis).
4. The pathways that regulate mRNA translation during hypoxia provide interesting candidate targets for the development of novel anti-cancer drugs (this thesis).
5. Development of new biomarkers for non-invasive imaging is necessary to restrict the most aggressive cancer therapy to patients with the highest risk of failing conventional treatment.
6. As massive amounts of gene expression data continue to be generated using technologies such as microarrays and deep sequencing methods, the need for skilled bioinformaticians as well as the capacity to store all this information increases.
7. The concept of cancer stem cells receives currently great interest. However it remains unknown whether these cancer stem cells are derived from mutations in normal stem cells or from differentiated tumor cells that have acquired the characteristics of stem cells.
8. Cancer research in The Netherlands would likely benefit more from special fundraising events by building community spirit and raising more money than by traditional door-to-door donations.
9. Hypoxic conditions can easily be achieved by sharing 1 office amongst 13 people.
10. 100% of the shots you don't take don't go in (Wayne Gretzky).

Twan van den Beucken, 11 september 2008