

# The impact of smoking-associated aldehyde exposure on the molecular regulation of mitochondrial function in epithelial cells of the airways and lungs

Citation for published version (APA):

Tulen, C. B. M. (2023). *The impact of smoking-associated aldehyde exposure on the molecular regulation of mitochondrial function in epithelial cells of the airways and lungs: implications for COPD*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20230420ct>

## Document status and date:

Published: 01/01/2023

## DOI:

[10.26481/dis.20230420ct](https://doi.org/10.26481/dis.20230420ct)

## 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.

Download date: 10 May. 2024

# Stellingen

behorende bij het proefschrift

## **The impact of smoking-associated aldehyde exposure on the molecular regulation of mitochondrial function in epithelial cells of the airways and lungs**

Implications for COPD

*Christy B.M. Tulen*

Maastricht, April 20th 2023

1. The role of the cellular micro-environment on the molecular regulation of mitochondrial turnover is understated in research models investigating COPD pathogenesis. (*This thesis*)
2. The use of advanced and complex *in vitro* pulmonary models over more simple conventional models is not per definition better to study the impact of inhalation toxicants. (*This thesis*)
3. Acute and prolonged acrolein inhalation *in vivo* elicit an opposite response on the molecular regulation of mitochondrial metabolism, indicating a potential role for adaptation. (*This thesis*)
4. Compounds other than aldehydes are likely to contribute to cigarette smoke-induced dysregulation of mitochondrial quality control processes. (*This thesis*)
5. Knowledge about the complex interplay between aldehydes, mitochondrial dysfunction and COPD pathogenesis can contribute to the development of novel therapies for COPD. (*Impact*)
6. Mitochondria are not only the ‘powerhouse of the cell’, but are key organelles involved in health and disease.
7. The Netherlands should follow the example of New Zealand by introducing a smoking ban for the next generation which is the first step to achieve the goal of a ‘smoke-free population’.
8. Publishing negative data is necessary for transparency, to avoid unnecessary repetition of experiments and prevent bias, however journals still appear to have a preference for reporting spectacular positive findings, partly due to the emphasis on having to score on impact statistics.
9. The soloistic structure of a PhD project should be reconsidered in academia, since shared and collaborative PhD projects could be more efficient, successful and gratifying.
10. Anyone who has never made a mistake has never tried anything new (*Einstein*)