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Chronic mucus hypersecretion in COPD and asthma

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**Chronic mucus hypersecretion in COPD and
asthma: Involvement of microRNAs and
stromal cell-epithelium crosstalk**

Hataitip Tasena

The studies presented in this thesis were performed within the framework of the Groningen University Institute for Drug Exploration (GUIDE), the Groningen Research Institute for Asthma and COPD (GRIAC), and U4 Ageing Lung Consortium. They are financially supported by the University of Groningen, Stichting Astma Bestrijding (SAB), and de Cock foundation.

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 groningen

**Chronic mucus hypersecretion in COPD and asthma:
 Involvement of microRNAs and
 stromal cell-epithelium crosstalk**

PhD thesis

to obtain the degree of PhD at the
 University of Groningen
 on the authority of the
 Rector Magnificus prof. E. Sterken
 and in accordance with
 the decision by the College of Deans.

This thesis will be defended in public on

Wednesday 3 July 2019 at 12.45 hours

by

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In memory of my mom,
Ketsuda.

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