



University of Groningen

WNT signaling in airway remodeling in asthma

Kumawat, Kuldeep

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version Publisher's PDF, also known as Version of record

Publication date: 2015

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):

Kumawat, K. (2015). WNT signaling in airway remodeling in asthma: novel roles for WNT-5A in airway smooth muscle. [S.n.].

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: https://www.rug.nl/library/open-access/self-archiving-pure/taverneamendment.

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): http://www.rug.nl/research/portal. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Download date: 04-06-2022

Stellingen behorende bij het proefschrift

WNT signaling in airway remodeling in asthma

Novel roles for WNT-5A in airway smooth muscle

- Increased WNT-5A expression in airway smooth muscle cells of asthma subjects and its involvement in regulating features of airway remodelling highlights an important role for this noncanonical WNT ligand in asthma pathophysiology (this thesis).
- 2. Preferential expression of noncanonical WNT ligands is a key effect of TGF- β in airway smooth muscle cells (this thesis).
- 3. Regulation of WNT-5A expression is a shared cellular response of otherwise exclusive TGF-β- and WNT-activated β-catenin signaling (this thesis).
- 4. Receptor utilization by WNT-5A is ambiguous. Mere high expression levels of FZD₂ can't guarantee its utilization by WNT-5A (this thesis).
- 5. Noncanonical WNTs link actin remodeling to airway remodeling (this thesis).
- 6. Downregulation of WIF1 underlines an important event in asthma pathophysiology where low WIF1 levels may augment WNT-5A signaling (this thesis).
- 7. TGF-β signaling carefully orchestrates WNT-5A functioning in airway smooth muscle cells providing multiple therapeutic targets in the process (this thesis).
- 8. A key difference between health and disease is the concentration of WNT-5A, in time and space.
- Everything we call real is made of things that cannot be regarded as real (Niels Bohr).
- 10. You will spend more of your waking hours at work than anything else. If that time doesn't make you happy it's a huge waste of life (Alexander Kjerulf).

Kuldeep Kumawat Groningen February 20th 2015