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### siRNA in precision-cut lung slices: knocking down fibrosis?

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# STELLINGEN

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## **siRNA IN PRECISION-CUT LUNG SLICES: KNOCKING DOWN FIBROSIS**

1. Pulmonary administration of small interfering RNA (siRNA) holds great promise for the treatment of lung diseases, such as cancer, fibrosis, and viral infections. (this thesis)
2. Precision-cut lung slices can be successfully transfected with selfdeliverable (Accell) siRNA to achieve protein knockdown without affecting their viability. (this thesis)
3. Challenging established practices, also known as traditions, not only benefits our society but also considerably improves the viability of precision-cut lung slices. (this thesis)
4. Though collagen maturation in precision-cut lung slices remained unchanged upon knockdown of heat shock protein 47 (HSP47), HSP47 remains an attractive therapeutic target to treat idiopathic pulmonary fibrosis. (this thesis).
5. Despite being frequently used, precision-cut lung slices are not fully utilized; emerging technologies should be exploited to reveal phenotypic changes in specific cell types.
6. Solely attenuating myofibroblast activity is unlikely to cure idiopathic pulmonary fibrosis. Scientists should also focus on developing drugs that promote degradation of fibrotic extracellular matrix.
7. We are all different, and that's totally fine. Don't be afraid to leave your mark on society, one sparkly glitter at a time.
8. Scientific innovations should not be acclaimed based on their complexity, but rather the extent to which they are used in practice.
9. Medical scientists sometimes focus too much on building careers. We should not forget our ultimate aim: to improve and extend patients' lives.
10. Cleanliness should be considered as an important virtue. Whenever your environment is clean and tidy, you feel so much better!

**Mitchel Ruigrok**