

Poster N°5

Miniaturized primary airway epithelia and reporter viruses development to screen antiviral molecules against respiratory viruses

Auteurs:

Alice Trausch^{1,2}, Mélanie Labbe², Ana-Luiza Chaves-Valadão¹, Jimmy Cadènes¹, Marc Vandamme², Emmanuel Chereul², Caroline Goujon¹, Olivier Moncorgé¹

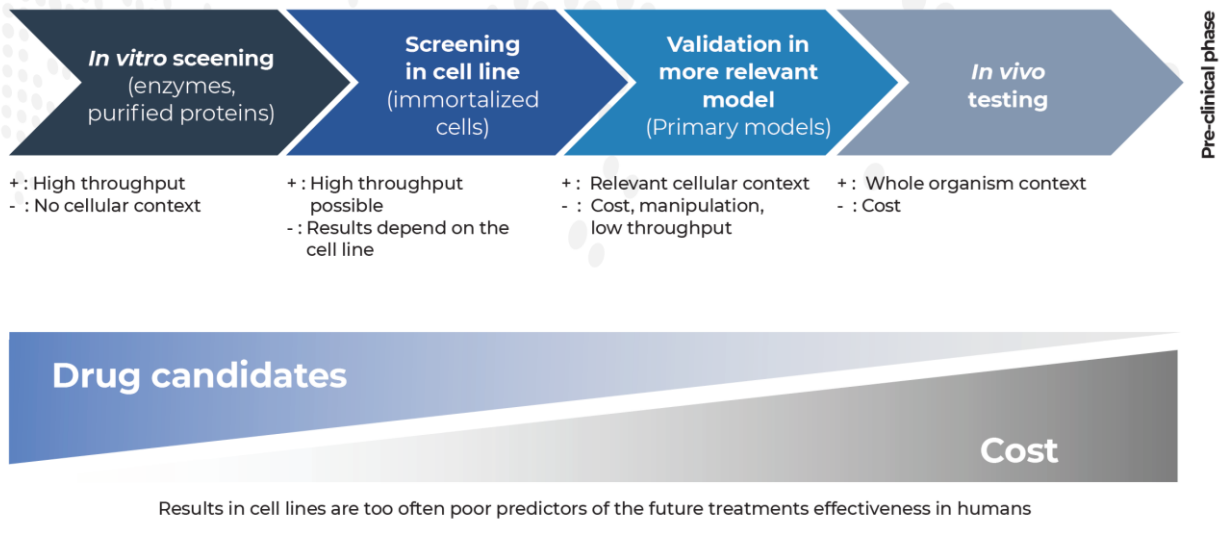
1-Institut de Recherche en Infectiologie de Montpellier, UMR9004, CNRS-Université de Montpellier, France | 2-Voxcan, Research and development team, Groupe ERBC, Dommartin, France

Alice TRAUSCH – CIFRE PhD Student

*Thesis director : Olivier MONCORGE
ERBC thesis supervisor : Marc VANDAMME*

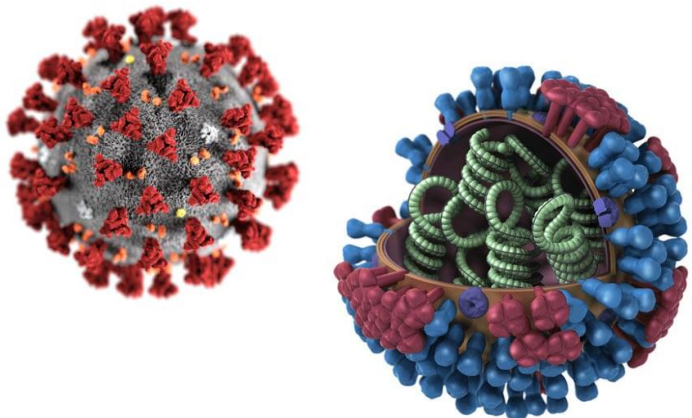


Why ?



- Replace cell line screening by screening in an lung epithelium ALI model
- Improve hit quality, reduce number of animals used for validation (3R compliance)

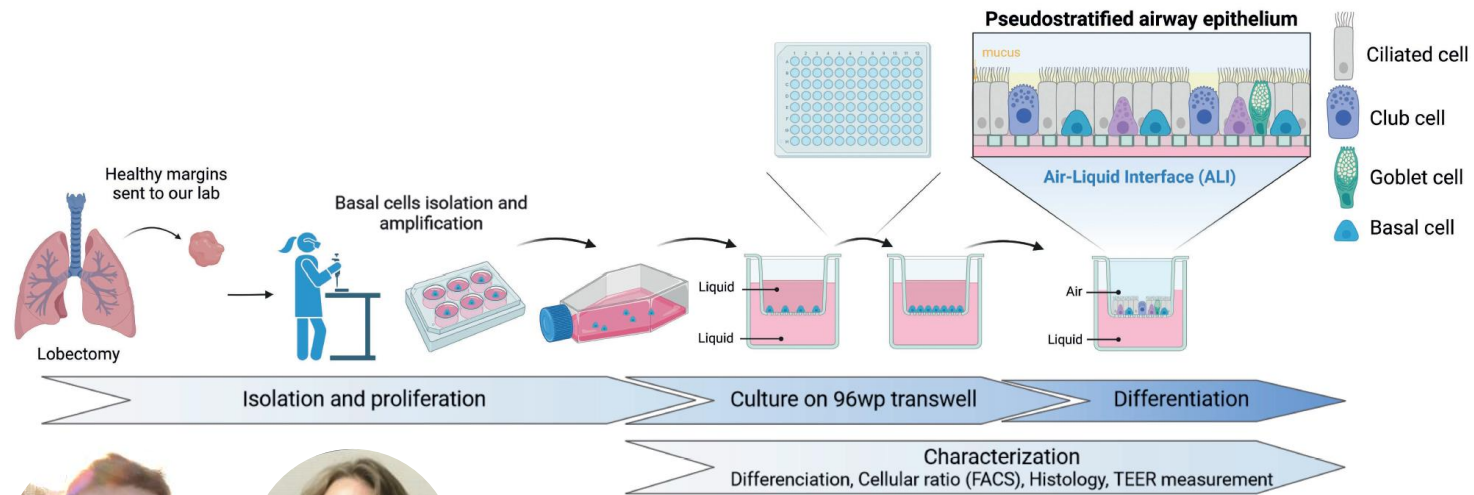
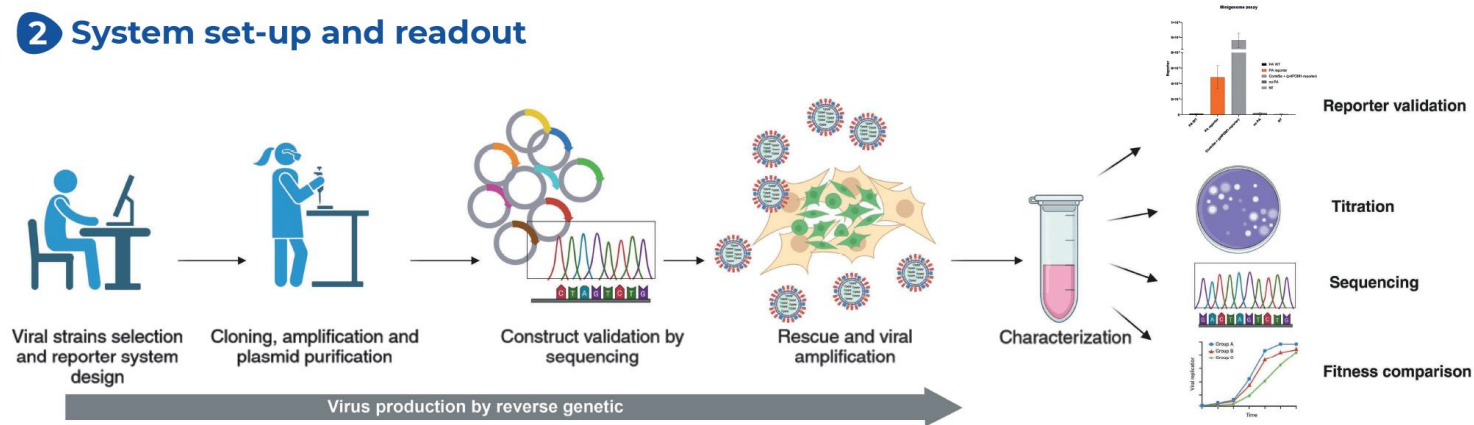
- Combine lung ALI systems with recent reporter viral strains



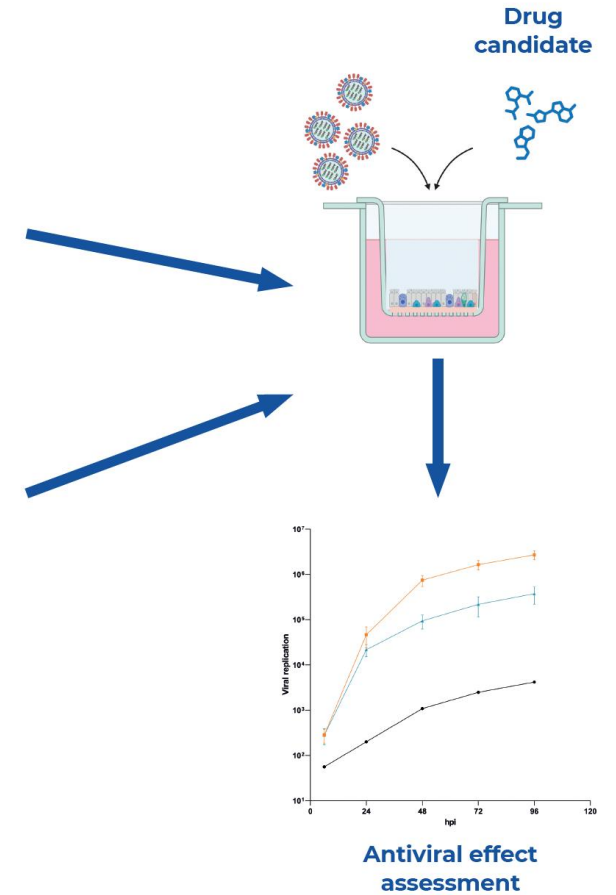
<https://www.cdc.gov/>

How ?

2 System set-up and readout



Olivier Moncorgé

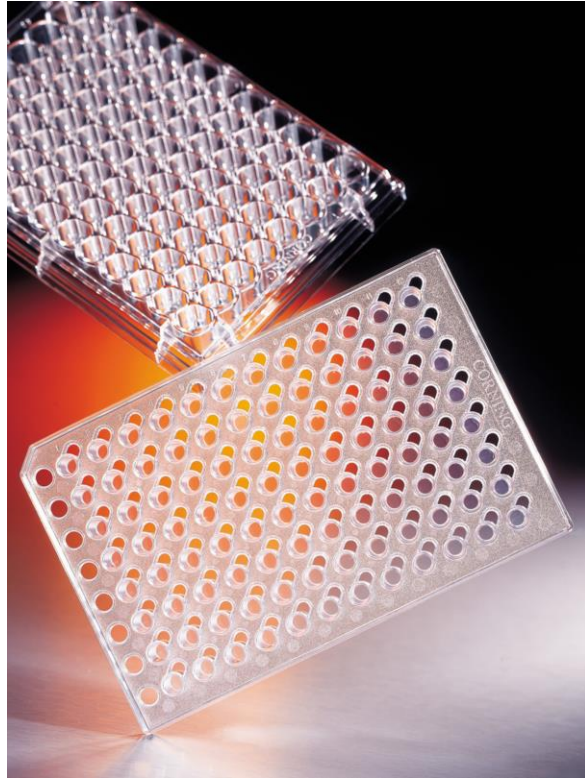


Marc Vandamme

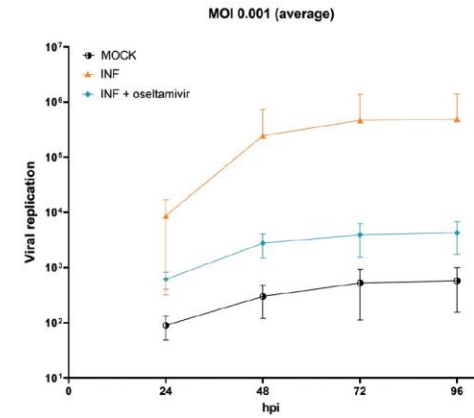
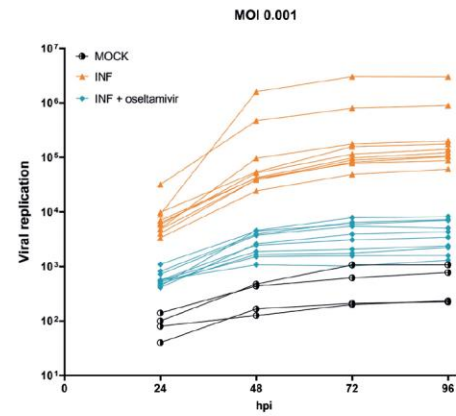
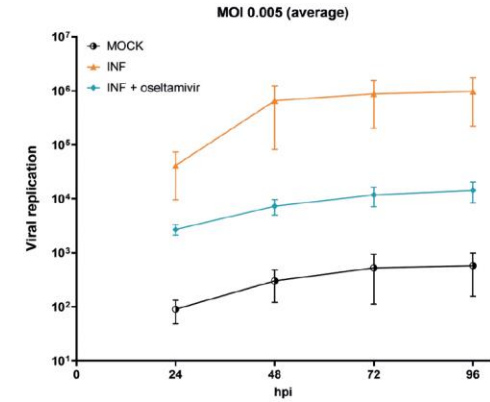
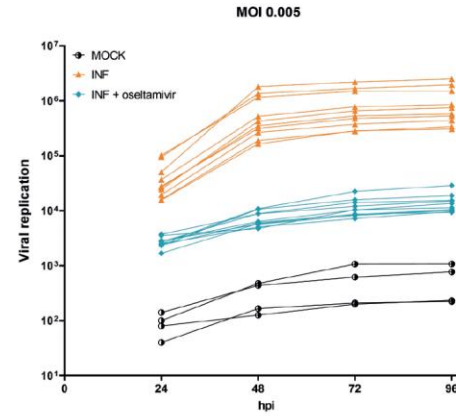


Mélanie Labbe

Results



Infection by influenza A reporter virus



Now ?

- **Tissue characterisation**
 - Cellular composition and ratio (Flow cytometry, histology)
 - Inter-donor variability
 - Number of well per compounds to test for good statistics
- **Reporter viruses production and characterisation**
 - Fitness comparison WT vs Reporter
 - Sequencing
 - Huge viral stocks production for the company

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