Airborne Pathogen Detection via MASC-On

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Atmospheric Science

Innosuisse

Part of the ***RIQAP*** Project

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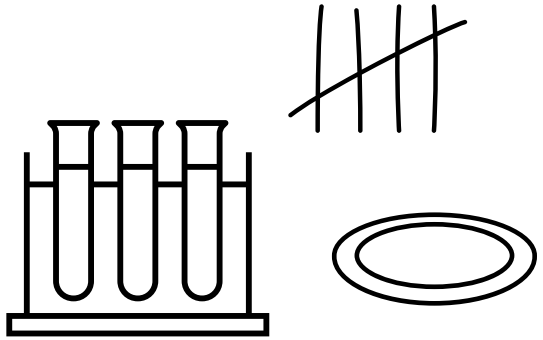
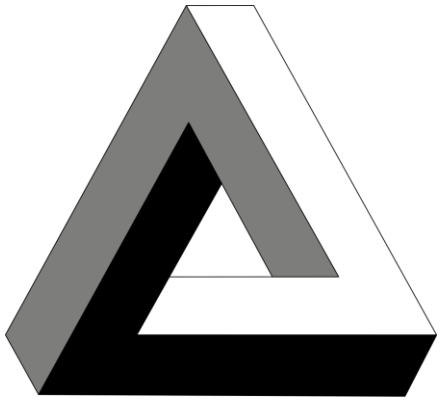
Motivation

- After *Sars-CoV-2* – the next pandemic is coming
- How do we measure pathogens in the air?
- Needs to be…



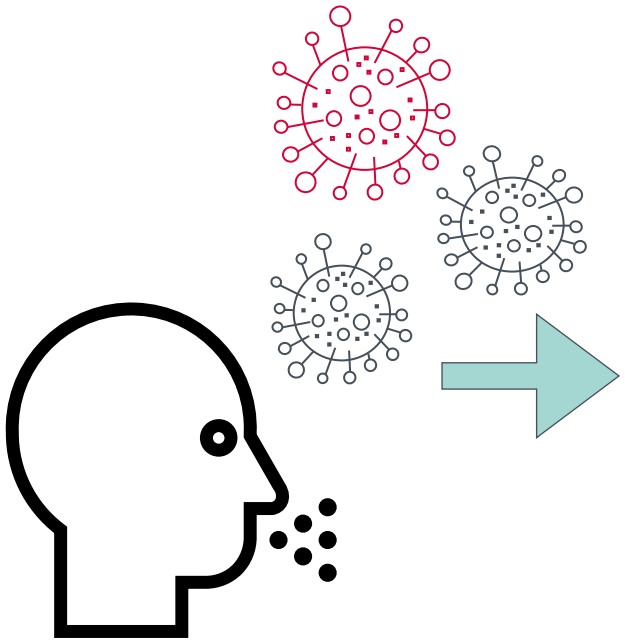
Fast



Specific Automated

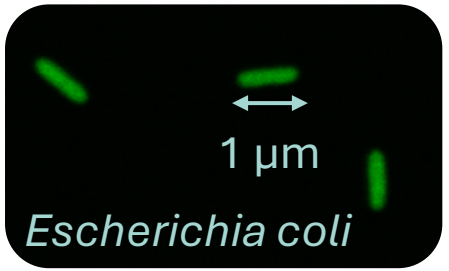
https://upload.wikimedia.org/wikipedia/commons/thumb/f/fa/Foin_meule_Roumanie.jpg/960px-Foin_meule_Roumanie.jpg
https://upload.wikimedia.org/wikipedia/commons/thumb/c/c1/Penrose-dreieck.svg/1280px-Penrose-dreieck.svg.png

MASC-On Overview

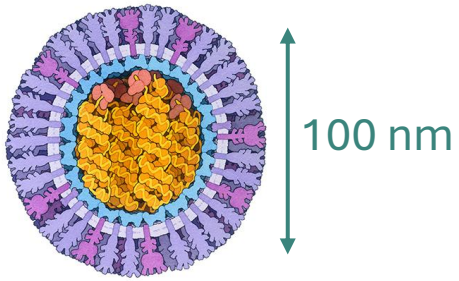


Cannot be shown due to patent

For now:



Next:



Influenza

Illustration by David S. Goodsell, RCSB Protein Data Bank. doi: 10.2210/rcsb_pdb/goodsell-gallery-049

Methods Detection

Cannot be shown due to patent

Results Detection

Cannot be shown due to patent

Methods Selection

Cannot be shown due to patent

Results Selection

Cannot be shown due to patent

Methods Collection

Cannot be shown due to patent

https://www.brechtel.com/wp-content/uploads/2014/09/bmi-model-4001-PILS-AutoCol-PC_2.jpg
https://www.skcltd.com/images/biosampling/225-9593_500x500.png

Methods Collection

Cannot be shown due to patent

Results Collection

Cannot be shown due to patent

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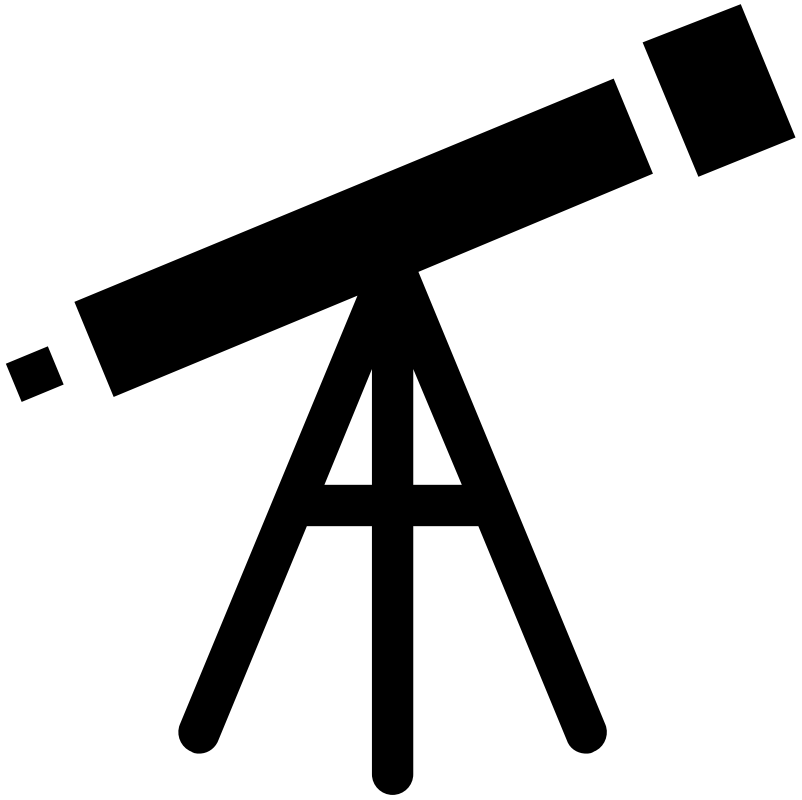
Cannot be shown due to patent



Outlook

Cannot be shown due to patent

- Swiss TPH: antibodies for Influenza
- FHNW: air sampler (100 Lpm)

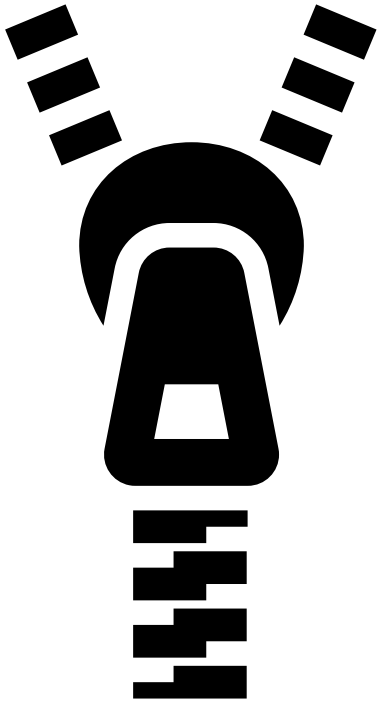
Swiss TPH

n|w

Summary

- MASC-On as promising method for automated pathogen detection

Cannot be shown due to patent



Thank you!

Cannot be shown due to patent

Collaborators

n|w Swiss TPH

D|U|W University of Basel