# Case Study: IMAGING 1

## Research Question

Does a novel antiviral formulation have antiviral activity against SARS-CoV-2 replication in human bronchial epithelium?

## Our Approach

SARS-CoV-2, the coronavirus responsible for the COVID-19 pandemic, initially replicates in bronchial epithelium in the human upper airway. Initial evidence suggests that emerging variants of concern, including omicron, have enhanced replicative abilities in the upper airway that may facilitate enhanced viral transmission from person to person compared with previously circulating variants. Antivirals with the ability to reduce nasopharyngeal viral shedding are therefore of interest to reduce person-to-person transmission, particularly if these agents can be applied topically.

## Expertise:

Offering imaging solutions to academic and commercial clients in a customisable range of services at each stage of the research pathway; from experimental design to final publication.


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## Testimonial

"We evaluated an experimental formulation based on an emulsion of short chain caprylic acid (ViroSAL), for its ability to inhibit diverse enveloped viral infections in vitro and in vivo. Using human bronchial epithelial cells cultured as an air-liquid interface, we demonstrated potent inhibition of SARS-CoV-2 infectivity in this model of the upper airway. This research utilised multiple imaging approaches including light microscopy, scanning electron microscopy and transmission electron microscopy, supported by the Conway Imaging core".

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