



Keynote speakers:



Breath Virtual Seminars

***VOCs from cells to
breath***

**Tuesday, December 1st, 2020
16:00 – 17:00 GMT**

To register, please click [here](#)



Prof Jane E. Hill

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MSc. Carly Bobak

*Dartmouth College
Quantitative Biomedical Sciences*

VOCs from cells to breath

Abstracts

Prof Jane E. Hill

*Department of Chemical and Biological
Engineering
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University of British Columbia*

What use are culture experiments in breath research?

What can we learn from sniffing and evaluating cell cultures? In this presentation, I will advocate a role for cell cultures in breath research. In particular, I will discuss their utility in: training for animal and human work, helping us to understand new technology, and direct translation. I will also highlight common pitfalls in the approach and interpretation of cell culture data.



Breath virtual seminars

MSc. Carly Bobak

*Dartmouth Collage
Quantitative Biomedical Sciences*

Data driven feature selection and validation in untargeted breath analysis

Inherent to studying clinical applications breath analysis is the identification of VOC fingerprints. Machine learning is playing increasingly important role in clinical breath research, but a critical aspect influencing both the accuracy and generalizability of any machine learning model is the selection of VOC features. In my talk, I will review different methods of data driven feature selection, their underlying assumptions, strengths, and weaknesses, as well as present computational methods for feature validation. It is the careful design of both computational analysis and experimental validation that will wedge the gap between breath research and clinical translation.