



CAN-ASC WEBINAR SERIES

STATISTICS AT THE BENCH: GET THE MOST OUT OF YOUR HARD WORK

Gabrielle Boucher, MSc

FRIDAY, APRIL 30, 2021 12 pm PT, 3 pm ET



Gabrielle Boucher is a statistician who has worked closely with biologists for over 10 years and is familiar with common challenges in experimental biology. She has provided support in a variety of different areas including genetics, molecular biology, immunology, proteomics and metabolomics. Her expertise extends from experimental design to quality control, statistical analysis and data interpretation. Over the years she has witnessed the struggle of students and researchers to unite statistical concepts with practical experimental design. She has assembled a list of 'for the bench' statistical dos and don'ts and will debunk common misconceptions to help you get the most out of your experiment and avoid turning data into random numbers.

"Avoid ever hearing from your statistician 'There is nothing I can do...'"

WEBINAR DESCRIPTION:

- Design: The foundation of your experiment**
 - Your statistician is no superhero...
 - Inference is king
 - Biological and technical replicates
 - Murphy's law also applies to experiments
 - Bias and batch effects: Cover your back
 - Precision and accuracy
- Show me your results**
 - The right mean
 - Multiply effects- you don't realize that you already know this
 - Choose your error
 - Graphical displays
 - Are you doomed with $n=3$?
- Statistics serve science- not the other way around!**
 - Statistical testing
 - Are you asking the right question?
 - Biological or statistical significance?
 - Can we say that?
 - Multiple testing
 - Do you need help?

