

LI-COR Biosciences

Thursday, March 23, 2023
14:00 - 14:30, Lecture Hall 101

The path to quantitative and reproducible Western Blots

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“Although originally a qualitative or at best a semi-quantitative method, with the rise of computational systems biology, Western blotting has become increasingly important for fully quantitative applications.” (Degasperi et al, *PLoS ONE*, 2014)

“The development of the immunoblot to detect and characterize a protein with an antisera, even in a crude mixture, was a breakthrough with wide-ranging and unpredictable applications across physiology and medicine.” (Mc Donough et al, *Am J Physiol Cell Physiol*, 2015)

What is a quantitative Western Blot?

A quantitative Western Blot makes relative comparisons between different treatments possible. The goal of a quantitative Western is to accurately measure changes in protein expression.

Why do we need quantitative Western Blots?

Life-altering therapeutics. Increased crop yields. All of us want to make a difference with our life's work. Quantitative Westerns can be a powerful tool to advance discovery and make the world a better place.

The following topics regarding quantitative Western Blot requirements will be addressed in our workshop:

- How to choose the best normalization strategy?
- How to find the combined linear range of detection for your proteins of interest?
- How to keep experimental variability as low as possible?

What steps can you take today to improve your Western Blot results?

LI-COR provides products, protocols, and support for Western blotting that help reduce variability and increase replicability.



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