

Translational Pathways & Validation:

Histology & Molecular Biology Techniques for Non-Biologists

Carlos J. Perez-Torres, Ph.D.

Postdoctoral Research Associate

Washington University in Saint Louis

pereztorresc@wustl.edu

Highlights

- H&E and other non-targeted staining techniques
- The antibody as a protein detection toolbox
- Immunohistochemistry: colorimetric vs. fluorescence
- Western Blots and other electrophoresis methods
- ELISA and protein quantification

Target audience: Non-biologists wishing to learn about basic molecular biology techniques

Objectives:

This talk will focus on common and basic molecular biology techniques that can be used to confirm, validate or expand upon MRI results. For each technique listed above, we will go over some of the basic methodology as well as their strengths and weaknesses. Examples will be given from the literature of how the results from the different techniques are usually presented in articles with an effort and emphasis on examples that also include MRI results. The topic will be approached with the assumption that the audience has no prior knowledge of molecular biology.