



## Alexandra Olaya-Castro

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Joint OMQ/PChem seminar - host: Andrew Marcus

### Bridging Quantum Science and Biology

Quantum Science has achieved remarkable theoretical and experimental success. It allows us to predict, quantify and probe quantumness in a variety of physical scenarios. Concomitantly, technological advances have enabled us to zoom into the biological world, down to the biomolecular scale to investigate the domain where quantum phenomena cannot be neglected. The dialog, at times full of skepticism, between these two scientific areas has given strength to the interdisciplinary study of quantum effects in biology. In this lecture I will discuss how this field is helping to draw a sophisticated picture of fundamental processes in biology such as photosynthesis. The insight promises to open avenues not only to develop artificial quantum-enhanced energy conversion nanostructures but also to transform life processes on Earth by understanding and modifying them at the quantum level.

2:00 pm • Wednesday, May 1st

240D Willamette

Refreshments served at 1:45pm