



William L. Noderer

Graduate Institution: Stanford University

Graduate Discipline: Chemical Engineering

Hometown: Macunie, PA

Relevant SC Research: Biological and Environmental Research

Research Interest:

High-dose exposure to ionizing radiation (IR) has been shown to lead to an array of pathologies including an increased risk of cancer. However, there is no empirical evidence linking low-dose IR to a similar elevated risk of cancer. The effects of low-dose IR have been estimated by linearly extrapolating from the effects of high-dose IR. This linear approximation would be inappropriate if cells have a fundamentally different response to high-dose IR and low-dose IR. My research investigates the discontinuous behavior of the p53 pathway in response of high-dose and low-dose IR. The findings are anticipated to help policy makers assess the cancer related risks of low-dose IR.

More generally, my research aspires to understand the fundamental mechanisms of cancer progression by developing genetic tools to control dynamic gene expression and measure phenotypic outcomes.

About Me:

I am a fourth year Chemical Engineering PhD student at Stanford University working in Cliff Wang's group. I enjoy the cross-disciplinary nature of our research.

When I escape from the lab, I enjoy backpacking, skiing, and racquetball. I have tried to take advantage of the Bay Area's numerous nature preserves and state parks.



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