

# Chris Lee Sosa

**Graduate Institution:** Princeton University

**Graduate Discipline:** Chemical and Biological Engineering

**Hometown:** Rockaway, NJ

**Relevant SC Research:** Advanced Scientific Computing Research



## Research Interest:

I am deeply fascinated by the biological mechanisms with which cells initiate, control, and optimize the production of complex molecules through the assembly and disassembly of liquid-like intracellular bodies such as nucleoli. In particular, I am interested in how the size, catalytic properties, and dynamics of such structures regulate the rate of biosynthetic activity and overall growth rate in individual cells. In order to study these complex biological mechanisms, I will be involved in the development of novel proteomic and molecular analysis

tools needed for these investigations to be carried out. The biophysical insight resulting from these studies can have far reaching implications for halting tumor growth, optimizing bioprocessing rates for biofuel production, and controlling the proliferation of cell colonies involved in environmental remediation efforts.

## About Me:

While my doctoral studies will focus on addressing a particular scientific question, I am deeply intrigued by nearly all facets of the natural world from molecular scale interactions to macroscopic astronomical

phenomena. My persistent desire to learn is matched only by the great enjoyment I derive from tutoring and mentoring students. I therefore hope to be able to serve students in the future as an educator and mentor as well as pursue my entrepreneurial goals of starting a small biotechnology company with a focus on biosynthetic technologies. Outside of research and my career pursuits, I enjoy hiking, cycling, swimming, reading philosophical works of literature, and traveling.



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