

# RNA Innovation Seminars

**Monday, March 28, 2022 4:00 PM EST**  
**BSRB, ABC Seminar rooms (Hybrid)**

***Marvelous U: Canonical  
and non-canonical  
functions of uridine  
modifying enzymes in  
health and disease***

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## Abstract

RNA modifications are essential for human health—too much or too little leads to serious illnesses ranging from neurodevelopmental disorders to cancer. We are working to uncover the RNA targets of RNA modifying enzymes that are dysregulated in disease and to understand their molecular and organismal roles. Recent advances in detecting the modified nucleosides pseudouridine and dihydrouridine reveal complex landscapes that include pre-messenger RNA and diverse classes of noncoding RNA in yeast and human cells. I will give an update on our progress towards answering three questions: How are specific RNA sites selected for modification and how is this process regulated? What are the molecular consequences of mRNA and non-coding RNA modifications? How do specific defects in RNA metabolism result in organismal phenotypes, including disease?