

**BIOMEDICAL DATA SCIENCE
PRESENTS:
BIODS 260C
4/13/23 1:30PM-2:50PM
MSOB X303 (SEE ZOOM DETAILS BELOW)**

Rhiju Das
Associate Professor of
Biochemistry
Stanford University

Title:

Modeling and design of RNA-only structures

Abstract:

The discovery and design of biologically important RNA molecules has lagged behind proteins, in part due to the general difficulty of three-dimensional RNA structural characterization. What are the prospects for an AlphaFold for RNA? I'll describe some recent progress in modeling RNA structure from old-fashioned and new machine learning, cryoelectron microscopy, and internet-scale competitions hosted on the Eterna, Kaggle, and CASP platforms.

Reading/viewing list:

"RNA structure: a renaissance begins?"

<https://www.nature.com/articles/s41592-021-01132-4>

"RNA secondary structure packages evaluated and improved by high-throughput experiments"

<https://www.nature.com/articles/s41592-022-01605-0>

Zoom link: <https://stanford.zoom.us/j/94324405118?pwd=WnR3Y1dqK3plYWRENORNVjRINnhEUT09&from=addon>

Meeting ID:

943 2440 5118

Password:

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