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***4:00pm Thursday, January 19, 2023***

***“Tools and Tactics for Targeting RNA with Small Molecules”***

Targeting RNA with small molecules is an attractive approach with the potential to pharmacologically modulate “undruggable” proteins, or even non-coding RNAs, with druglike small molecules. However, there are few examples of druglike small molecules that directly bind to RNA. In this talk, I will describe my laboratory’s efforts to use a small molecule microarray high throughput screening platform to rapidly identify molecules that directly interact with structured RNA targets. In addition to discussing specific bacterial and human RNAs we have studied to develop medicinal chemistry and chemical biology tools to interrogate RNA, I will describe how we have developed machine learning algorithms to characterize RNA-binding chemical space.