

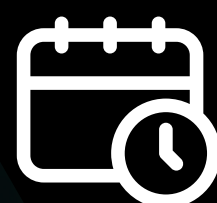
GLYCORNA BIOLOGY ON THE CELL SURFACE

About the speaker

Ryan is a New Jersey native who completed his undergraduate training at MIT, where he worked in the lab of Phillip Sharp on small noncoding RNA biology. Subsequently he moved to Stanford where he completed his M.D. and Ph.D. with Howard Chang developing methods to study RNA-protein interactions. From this work, he won the Weintraub Graduate Student Award. As a post-doc he changed fields to learn both chemistry and glycobiology with Carolyn Bertozzi at Stanford as a Damon Runyon Cancer Research Postdoctoral Fellow. At the beginning of 2021, the Flynn Lab opened at Boston Children's Hospital in the Stem Cell Program and the Department of Stem Cell and Regenerative Biology at Harvard University. The Flynn Lab is currently focused on advancing methods, mechanisms, and functions surrounding the glycoRNA molecule, which operates at the interface of RNA biology and the cell surface.



Dr. Ryan Flynn
Assistant Professor,
Boston Children's Hospital and Harvard Dept.
of Stem Cell and Regenerative Biology



Monday 19 February 2024
9am (SGT , GMT+8)



Via Zoom



About the seminar

Glycans traditionally modify lipids and proteins to mediate inter- and intramolecular interactions across all domains of life, while RNA has not been thought to be a major target of glycosylation. I will discuss evidence for the discovery of glycoRNAs in mammalian cells which would represent a third scaffold for glycosylation. By interacting with immunomodulatory receptors, glycoRNAs also provide a new mechanistic to consider how cells express signals via glycans on the cell surface. Highlights of the chemical biology used to uncover glycoRNAs will be reviewed, with a focus on our more recent work aiming to define the precise linkage between N-glycans and RNA as well as the organization basis for glycoRNA presentation on the cell surface. A more generalized view for the role of cell surface RNA biology will be discussed.

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