# INGENIERÍA GENÉTICA 2021

## Seminario Especial

Departamento FBMC Dr. Hector Maldonado

**Jueves 16 de septiembre 2021 - 18 h**


## Jonathan Strecker

**Feng Zhang's lab**

**Broad Institute**

**MIT - Harvard, EEUU**


# Beyond nucleases:
## Diversity and life cycle of CRISPR-associated transposases


CRISPR-Cas nucleases are powerful tools for manipulating nucleic acids; however, targeted insertion of DNA remains a challenge, as it requires host cell repair machinery. We have been exploring the function of CRISPR-associated transposases from that microbial world which remarkably perform RNA-guided DNA transposition. These elements have evolved independently on several occasions and have co-opted multiple CRISPR-Cas effectors to promote their transmission. These diverse mobile elements reveal both common and unique properties in their life cycle and establishe a paradigm for precision DNA insertion.