ARNA **Seminar Series**

Wednesday, April 22 at 11 am (BBS auditorium)

How the *tisB–istR1* Toxin–Antitoxin system shapes antibiotic tolerance in *Escherichia coli*

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Toxin-antitoxin systems are widespread in bacterial genomes and come in different flavors. The Van Melderen lab is interested in the type I *tisB-istR1* system of *Escherichia coli*, which encodes the small toxin alpha-helical TisB toxin and its RNA antitoxin IstR1. While antitoxin expression is constitutive, toxin expression is tightly regulated by the SOS response. The SOS response is induced upon DNA damage and composed of a wide set of genes, primarily involved in DNA repair. We will discuss the role of TisB in the context of tolerance to ofloxacin, a fluoroquinolone antibiotic that induces DNA damages.

Host: Anaïs Le Rhun, ARNA laboratory