



BiophysTO Lunchtime Seminar Series

Date

Thursday, Oct 10, 2019
[12:00(noon)]

Location

McLennan, MP606
60 St George st

**Pizza & refreshments
provided**

Prof. Erdal Toprak

Green Center for Systems Biology
UT Southwestern Medical Center

Tradeoffs in evolution of antibiotic resistance

Antibiotic resistance is a global public health problem. Pathogenic bacteria can quickly evolve resistance to antibiotic molecules, rendering them ineffective. Although tradeoffs in evolution are commonly reported, whether such tradeoffs in evolution of resistance exist and they can be exploited for impeding evolution of resistance is unclear. Utilizing laboratory evolution experiments and complementing genetic and biophysical studies, we have recently shown that several resistance-conferring mutations pleiotropically cause interesting phenotypes such as antibiotic hypersensitivity. Finally, utilizing these findings, we have developed a new antifolate molecules that can perturb evolutionary trajectories and slow down evolution of resistance

Host: Prof. AntonZilman



**Seminar
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