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## Using the power of high school students to discover new antifungal resistance mutations

## **LE JEUDI 21 OCTOBRE 2021 À 12 H 30**

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Antifungal resistance is a growing concern in medicine and agriculture. Laboratory selection experiments with model yeast species can be a powerful approach to discover mutations that can lead to antifungal resistance, improving our understanding of the mechanisms by which resistance evolves and possibly how to limit it. In order to study this trait, we have created a modified experimental evolution protocol that can be performed by high school students, who then collaborate with us to sequence the evolved strains. Using data from two different high schools over multiple years, we have been able to reconfirm known antifungal resistance genes, discover new candidates, and see patterns of mutation co-occurrence and mutual exclusivity that indicate genetic interactions. I'll discuss both our scientific results and our implementation and evaluation of the teaching lab.

Hôte: Christian Landry