Katie Sagarin
Ph.D. Candidate
Cohan Lab
Biology Department

TELL US ABOUT YOUR CURRENT RESEARCH
Currently, I am studying the ecology and evolution of sporulation in Bacillus bacteria. Sporulating bacteria are like tiny superpowered beings—their spores can lie dormant for thousands of years and survive UV radiation and temperatures that would quickly kill a human, among other things. Sporulating bacteria are known for being pathogens such as anthrax and botulinum, but many are neutral or beneficial, residing in our guts and associated with plant roots. Surprisingly, their ability to sporulate can be lost rapidly (in fewer than 100 generations) through evolution in "kind" environments, which do not challenge them with frequent starvation. I am primarily investigating whether sporulation ability can be "tuned" to a particular environment in the laboratory based on a scale of environmental kindness (degrees of starvation). My favorite part of my project involves the bacteria themselves, which "eat evolution for breakfast," as Fred would say.

TELL US ABOUT YOURSELF
I am a seventh-year Ph.D. student aiming to graduate next spring. I fell in love with biology in high school. Before attending Wesleyan, I earned my BSc in biology with a minor in geology at McGill University in Montreal, and a Master's in biology at John Carroll University in Cleveland. I have visited 23 states (more, if you include airports) and nine countries. I don't speak French, but I do speak Spanish and started learning Japanese in 2020. In my free time, I enjoy cooking, baking, crocheting, and occasionally quilting, usually while listening to podcasts. I founded the board game club at Wesleyan when I served as President of the GSA in 2018-2019. I also play D&D and board games outside of Wesleyan.

WHAT IS A FUN FACT THAT NOT MANY OF US KNOW ABOUT YOU?
I have sung at Carnegie Hall, the Canterbury Cathedral, and the Notre Dame (in a children's chorus).

WHAT BOOK DO YOU RECOMMEND AND WHY?
Born a Crime by Trevor Noah. Devastating, hilarious, insightful, heartwarming, and hopeful.

WHAT SUPERPOWER WOULD YOU LIKE TO HAVE?
I should say the ability to sporulate but I'm going to go with telekinesis.