



UNITED STATES
COAST GUARD
ACADEMY

Science Lecture Series

From Plants to Pills: Designing Cancer Treatments with Chemistry

Dr. Sarah Zingales

Associate Professor, Chemical & Environmental Sciences, USCGA

Cancer is a serious disease that can affect anyone, regardless of age. Traditional chemotherapy often involves a race to destroy cancer cells before harming healthy tissue. To find better solutions, scientists have turned to nature for inspiration. Research in the Zingales lab focuses on synthetic versions of plant-derived secondary metabolites and their potential as anti-cancer agents. Our current objectives include building a compound library to study their medicinal properties and developing a more efficient, cost-effective method for synthesizing these compounds.

Monday, November 3rd, 2025

2000 -2100

Dimick Auditorium, U.S. Coast Guard Academy

Dr. Zingales is a teacher-scholar focused on Organic Chemistry. She earned her BS from Auburn University and her PhD from Georgia State University. Dr. Zingales teaches Organic Chemistry 1, Organic Chemistry 2, and Chemistry 1 lab. Her organic/medicinal chemistry research laboratory has a focus on design and synthesis of small molecules for a variety of research projects, including anticancer therapeutics and developing novel umpolung Biginelli-like reactions. She is also active in Chemical Education studying how students learn organic chemistry.

If you have any questions regarding the event, please contact Dr. Kanani K. M. Lee
(kanani.km.lee@uscga.edu) for more information.