

Yale SCHOOL OF PUBLIC HEALTH
Environmental Health Sciences
Special Seminar

**“Oxidatively-induced Lesions
Complicate Mammalian Base Excision
DNA Repair”**



Melike Caglayan, Ph.D.
National Institutes of Health (NIH)

Bio: Dr. Caglayan completed her undergraduate study in Biology at Istanbul University and conducted graduate studies in Molecular Biology at Bogazici University, Istanbul, Turkey. During graduate research, she focused on understanding a DNA polymerase that participates in prokaryotic DNA replication and examined how thermophilic species accurately perform DNA replication at temperatures where DNA base pairing is weakened. She identified novel thermophilic bacterial species, and characterized their DNA replication systems using DNA polymerase transient state kinetics and mutation assays. Currently, she is conducting postdoctoral research at the National Institutes of Health (NIH), National Institute of Environmental Health Science (NIEHS) in the DNA Repair and Nucleic Acid Enzymology Group. She has been studying molecular mechanisms of base excision repair (BER), a major DNA repair pathway maintaining genome stability over a lifespan. She is particularly interested in the importance and molecular mechanism of DNA ligation failure during the repair of cytotoxic and mutagenic lesions arising from many environmental agents. Dr. Caglayan's studies have helped elucidate the importance of successful completion the final step in the mammalian BER pathway, DNA ligation.

12:00 p.m. Wednesday, March 1, 2017
60 College Street, LEPH 101*

**lunch 11:30 am*