

DEPARTMENT OF CHEMISTRY AND ENVIRONMENTAL SCIENCE
SEMINAR SERIES
SPRING 2022

DATE: WEDNESDAY, APRIL 6, 2022
LOCATION: TIERNAN HALL – LECT. HALL 2
TIME: 1:00PM-2:20PM

GUEST SPEAKER

Dr. Sara Casado-Zapico
Assistant Professor
Department of Chemistry
New Jersey Institute of Technology
Newark, NJ

TOPIC

The New Detectives: Interdisciplinary Forensic Sciences

ABSTRACT

Collaborative, interdisciplinary approaches are vital to develop new methods in forensic science that are successful at both advancing knowledge in our field and providing law enforcement labs with practical and reliable techniques. This presentation is an overview of research in forensic anthropology that applies biochemical techniques, originated in biomedical research, to establish new methods for determining age at time of death, postmortem interval, and DNA profiling in different situations. This work is an important tool for forensic investigators in contexts where human remains are severely decomposed, such as in mass graves or mass disasters scenarios. This has the potential to increase learning and cooperation across many fields of science.

BIO

Sara C. Zapico, PhD, ABC-MB, C-MDI, is an assistant professor in the Department of Chemistry and Environmental Sciences at NJIT. She is also a research collaborator at Smithsonian Institution. She received her PhD in biochemistry, with a focus in biomedical sciences from the University Institute of Oncology of Principado de Asturias (IUOPA) in Spain, and her Master's in Forensic Anthropology and Genetics from the University of Granada, in Spain. After that, she was a postdoctoral fellow at Smithsonian Institution and an associate at the forensic unit from the International Committee of the Red Cross in Geneva, Switzerland, completing her postdoctoral training with other visiting scientist positions. Before coming to NJIT, Sara was the graduate program director of the Professional Science Master's in Forensic Science at Florida International University. Her research interests focus on the application of biochemical techniques to forensic science issues, like age-at-death estimation and the determination of post-mortem interval, with implications in aging and biomedical research.

Seminar Coordinator:

Dr. Genoa Warner – grw4@njit.edu
Dr. Amir Varkouhi - amir.k.varkouhi@njit.edu