Tatiana Trejos

Dr. Trejos is an Associate Professor in the Department of Forensic and Investigative Sciences at West Virginia University, where she teaches forensic courses across undergraduate, master's, and doctoral programs. Dr. Trejos' research group focuses on building strategic multidisciplinary collaborations among practitioners, researchers, and industry to increase capacity and apply emerging methods to improve data use and data quality. Dr. Trejos's primary research includes the interpretation of evidence and the discovery of chemical signatures of forensic materials using spectrochemical methods, such as SEM-EDS, ICP-MS, Laser Ablation ICP-MS, μXRF, Laser-Induced Breakdown Spectroscopy (LIBS), and Mass Spectrometry (GC-MS and LC-MS/MS). Glass, paints, polymers, inks, and gunshot residues are among the trace materials investigated in Dr. Trejos' laboratory. Dr. Trejos has received funding from the U.S. Department of Justice, the National Institute of Justice, the US Department of State, and the Department of Commerce to develop and implement methods and standards in forensic agencies. Tatiana Trejos has authored 96 peer-reviewed scientific publications and book chapters in forensic and analytical chemistry. Dr. Trejos has been a program chair of scientific meetings and a guest speaker at several venues worldwide, where she raises awareness of the value of Trace Evidence in the criminal justice system. Dr. Trejos received the prestigious science and technology award "Clodomiro Picado Twight" from the Costa Rican National Academy of Sciences (2015), was listed on the Forensics Colleges' top 10 forensic chemistry professors, received the WVU Eberly College Outstanding Researcher Award (2020), the Sharon B. Nakich Award from NIST-OSAC (2024), the Travis Stimeling Award for Mentoring Undergraduates in Research in the category of Physical Sciences & Technology (2025), and the Edmond Locard Award for Excellence in Trace Evidence from the American Society of Trace Evidence Examiners, ASTEE (2025). Tatiana actively participates in various scientific working groups. Tatiana was Director of the American Society of Trace Evidence Examiners (ASTEE, 2022-2026) and has been elected President of ASTEE (2026-2027). Tatiana is a member of the ASTM E-30 committee and the Organization of Scientific Area Committees (OSAC, 2014 to date). Within the NIST-OSAC organization, she has served on the Materials (Trace) Subcommittee, as chair of the Research and Glass Working Groups, and a member of the Interpretation and Physical Fits Groups. Tatiana is also an affiliate member of the ILEXGSR Subcommittee. Tatiana has served in two *NIST Scientific and Technical Review Panels (STRPs)* for physical fits and gunshot residue. Most recently, Tatiana was appointed Chair of the Trace Evidence Scientific Area Committee (SAC), overseeing the ILEXGSR and Trace Materials subcommittees. Tatiana contributes to the forensic discipline by drafting standard practices, guidelines, and testing methods, identifying research and development needs in trace evidence, designing and leading interlaboratory studies, and developing plans for training, disseminating, and implementing consensus-based methods.