



## Workshops — 2019

---

### W20 The Forensic Pathology of Gunshot Wounds

*Jane W. Turner, PhD, MD\*, St. Louis, MO 63104-2013; Nadia A. Granger, MD\*, Monroe County Office of the Medical Examiner, Rochester, NY 14586; Juliette Scantlebury, MD\*, St. Louis City Medical Examiners' Office, St. Louis, MO 63103; Marianna Eserman, MD\*, New Orleans, LA 70125; MariaTeresa A. Tersigni-Tarrant, PhD\*, Saint Louis University School of Medicine, St. Louis, MO 63104; Diane C. Peterson, MD\*, Office of the Jackson City ME, Kansas City, MO 64108*

---

**Learning Overview:** After attending this presentation, attendees will be able to: (1) classify typical gunshot entrance and exit wounds; (2) differentiate atypical gunshot wounds; (3) use new advances in gunshot residue analysis; (4) explain the pathophysiology of gunshot injury; (5) interpret bullet tracks given different scenarios; (6) integrate forensic anthropology findings in bullet injuries and tracks; (7) review typical and atypical suicide gunshot wounds; and (8) describe autopsy findings in an oral presentation as if testifying.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by increasing the competence of forensic pathologists, forensic anthropologists, and other practitioners in examining, describing, correlating, and documenting gunshot injuries.

This is a course on gunshot injuries and related topics in the practice of forensic pathology. Having knowledge and experience with the evaluation of gunshot wounds and related injuries is paramount in the practice of forensic pathology. In examining individuals with gunshot wounds, the forensic pathologist must decide as to the cause and manner of death. Experience and knowledge in assessing these injuries is beneficial in many cases in making these determinations.

The forensic pathologists and forensic anthropologist who are presenting the course have extensive experience in examining, evaluating, interpreting, and documenting gunshot injuries. The instructors in this course combined have more than 50 years of experience, have examined several thousand individual gunshot injuries, and have testified under oath in hundreds of criminal proceedings. The purpose of this course is to impart the knowledge of these experienced practitioners to those who have only occasional cases involving gunshot injuries and to those who wish to refresh their training and knowledge of gunshot wounds. The objectives of the course for the learner include distinguishing the different types of entrance wounds and exit wounds; identifying graze and tangential wounds and other gunshot-related wounds; describing gunshot injuries, both typical and atypical; recognizing atypical gunshot wounds and artifacts; observing findings related to gunshot injuries, including microscopic findings; assessing old gunshot wounds and understanding the limits of interpreting entrance and exit wounds in some cases; applying forensic anthropology to the interpretation of trajectory and injury; correlating scene findings with autopsy findings; appraising new practices in the evaluation of gunshot residue; distinguishing the various firearm types, including those that are homemade; recognizing patterns of injury involving gunfire into a motor vehicle; determining the cause of death in cases of multiple injuries; evaluating gunshot wounds in cases involving law enforcement; interpreting radiographs; providing interpretations of trajectory given different hypothetical scenarios as in courtroom testimony; and evaluating typical and atypical suicide cases.

At the end of the course, participants will have the opportunity to participate in a practicum in which they review photographs of scenes and gunshot wounds and provide their own interpretations and written or oral reports. Participants will provide a report in which they describe the X-ray findings, location of injury, the type of injury based on the findings, the size and features of the injury, the track of the injury, the trajectory of the shot, the internal damage caused by and/or related to the injury, the presence or absence of a bullet, and the pathophysiologic effect of the injury.

---

### Gunshot, Wounds, Pathology