

Eric M. Warren Jr, Ph.D, FA-AFTE

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PROFESSIONAL EXPERIENCE

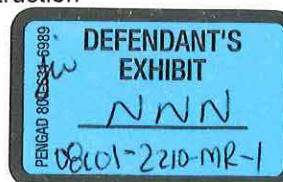
- 10/17 – Present Consultant & Co-Owner, SEP Forensic Consultants, Memphis, TN
Provide pretrial services to attorneys on cases with forensic firearm evidence, shooting trajectory determination, crime scene reconstruction, evidence collection, and provide advice on additional firearm testing. Provide assistance with discovery orders, expert testimony, and cross-examination of forensic scientists. Provide forensic training to law enforcement, attorneys, and educators.
- 08/09 – 10/17 Special Agent/Forensic Scientist, Tennessee Bureau of Investigation, Memphis, TN
Performed chemical and physical examinations, analyzed and compared submitted evidence. Conducted microscopic examinations on bullets and cartridge cases for identification of manufacture and/or individualization to a specific firearm. Assigned to Violent Crime Response Team.
- 05/03 – 08/04 Research Assistant, Vanderbilt University, Nashville, TN
Performed biochemistry experiments towards understanding cancer under the supervision of Dr. Ellen Fanning.
- 05/96 – 08/97 Laboratory Researcher, Vanderbilt University, Nashville, TN
Under the guidance of Dr. Majed Dasouki, performed research on genetically inherited diseases such as hereditary pancreatitis.

EDUCATION

- 08/04 – 08/09 Vanderbilt University- Nashville, TN
Doctor of Philosophy in Biological Sciences, Emphasis in Biochemistry and Molecular Biophysics
- 08/00 – 05/04 Vanderbilt University- Nashville, TN
Bachelor of Science in Molecular & Cellular Biology, Minors in Chemistry and Spanish
- 08/96 – 05/00 East Literature Magnet High School- Nashville, TN
Graduated Valedictorian

EXPERT TESTIMONY

- | | |
|-----------------------------------|--|
| Shelby County (Memphis) | Firearms Identification (Div 1, 2, 3, 4, 6, 7, 8, 9, 10) |
| Shelby County (Memphis) | Shooting Incident Reconstruction (Div 1, 3, 4) |
| Shelby County (Memphis) | Crime Scene Processing (Div 4) |
| Madison County (Jackson) | Firearms Identification (Div 1, 2, 3) |
| Tipton County (Covington) | Firearms Identification |
| Crockett County (Alamo) | Firearms Identification & Crime Scene Processing |
| Davidson County (Nashville) | Firearms Identification & Shooting Incident Reconstruction (Div 2) |
| Davidson County (Nashville) | Firearms Identification (Div 3) |
| Davidson County (Nashville) | Shooting Incident Reconstruction (Middle District of Tennessee) |
| Humphreys County (Waverly) | Crime Scene Investigation & Firearms Identification |
| Sumner County (Gallatin) | Forensic Scientist (Shooting Incident Reconstruction) |
| Boone County (Burlington, KY) | Shooting Incident Reconstruction |
| Hardin County (Elizabethtown, KY) | Firearms Identification |
| McCracken County (Paducah, KY) | Firearm and Ammunition Identification |
| Coconino County (Flagstaff, AZ) | Firearms Identification |
| Madison County (Huntsville, AL) | Shooting Incident Reconstruction |
| Decatur County (Decaturville, TN) | Shooting Incident Reconstruction |



Haywood County (Brownsville, TN)	Shooting Incident Reconstruction
Hardin County (Savannah, TN)	Firearms Identification & Shooting Incident Reconstruction
Hinds County (Jackson, MS)	Firearms Identification & Shooting Incident Reconstruction
Lowndes County (Columbus, MS)	Firearms Identification
Wicomico County (Salisbury, MD)	Firearms Identification & Shooting Incident Reconstruction
Barren County (Glasgow, KY)	Firearms Identification & Shooting Incident Reconstruction
Washington, D.C.	Firearms Identification (Criminal Division)
Montgomery County (Trotwood, OH)	Firearms, Ballistics, & Shooting Incident Reconstruction

RESEARCH PUBLICATIONS (Peer-Reviewed)

1. Parish, K., **Warren, E.M.** The Case of Glock Auto Sear. *In preparation*.
2. Dorrel, J., Pellet-Vazquez, L., Allen, G., Dittmore, K., Downs, A., Dupre, J., Haag, M., Karsten, R., Layne, B., Martinez, C., Parian, J., Peterson, L., Sligh, J., Stuart, J., **Warren, E.M.** G2 Research - A 2022 Ammunition Manufacturing Facility Tour. *AFTE J.* *In press*.
3. **Warren, E.M.**, Sheets, H.D. (2023) The Inconclusive Category, Entropy, and Forensic Firearm Identification. *For. Sci. Intl.*, 349(August): 111741.
4. Rossi, P., Xing, Q., Bini, E., Portaliou, A., Clay, M.C., **Warren, E.M.**, Khanra, N.K., Economou, A., Kalodimos, C.G. (2023) Chaperone Recycling in Late-Stage Flagellar Assembly. *J. Mol. Biol.*, 435(11).
5. Molans, Paul D., **Warren, E.M.** (2020) The History and Evolution of Ignition Systems. *AFTE J.*, 52(3):134-164.
6. **Warren, E.M.** (2019) Review: "American Sherlock – Remembering a Pioneer in Scientific Crime Investigation". *AFTE J.*, 51(3): 133-135.
7. **Warren, E.M.** (2018) A Comparison of Polymer Coated Bullets. *AFTE J.*, 50(1): 43-46.
8. **Warren, E.M.**, Sheets, H.D. (2017) Statistical Approaches to Type Determination of the Ejector Marks on Cartridge Cases. *J. For. Sci.*, 63(2): 431-439.
9. **Warren, E.M.**, Pitts, S.L. (2016) Using Class Characteristics to Distinguish Glock from Smith & Wesson Sigma Pistols. *AFTE J.*, 49(2): 70-78.
10. Vaithiyalingam, S., **Warren, E.M.**, Eichman, B.F., and Chazin, W.J. (2010) Insights into eukaryotic DNA priming from the structure and functional interactions of the 4Fe-4S cluster domain of human DNA primase. *Proc. Natl. Acad. Sci.*, 107, 13684-13689.
11. **Warren, E.M.**, Vaithiyalingam, S., Chazin, W.J., and Eichman, B.F. (2009) Physical interactions between Mcm10, DNA, and DNA polymerase alpha. *J. Biol. Chem.*, 284, 24662-24672.
12. **Warren, E.M.**, Vaithiyalingam, S., Haworth, J., Greer, B., Bielinsky, A.K., Chazin, W.J., and Eichman, B.F. (2008) Structural Basis for DNA Binding by Replication Initiator Mcm10. *Structure*, 16, 1892-1901.
13. **Warren, E.M.**, Robertson, P., Zhang, H., Friedman, D.B., Lary, J.W., Cole, J.L., Tutter, A.V., Walter, J.C., Fanning, E., and Eichman, B.F. (2008) Domain Architecture and Biochemical Characterization of Vertebrate Mcm10. *J. Biol. Chem.*, 283, 3338-3348.
14. Zhou, Z, Desensi, SC, Stein, RA, Brandon, S, Dixit, M, McArdle, EJ, **Warren, EM**, Kroh, HK, Song, L, Cobb, CE, Hustedt, EJ, Beth, AH. (2005) Solution Structure of the Cytoplasmic Domain of Erythrocyte Membrane Band 3 Determined by Site-Directed Spin Labeling. *Biochemistry*, 4446, 15115-15128.

PUBLISHED ABSTRACTS

1. **Warren, E.M.**, Xing, Q., Rossi, P. Kalodimos, C.G. Interactions of Bacterial Type III Secretion ATPase FliI with FliJ. *XXVIII Int. Conf. Mag. Reson. Biol. Sys.* August 2018. Poster presentation, Dublin, Ireland 2018.
2. **Warren, E.M.**, Metz, A.H., Tutter, A.V., Walter, J.C., and Eichman, B.F. Structural Studies of Mcm10, An Essential Replication Initiation Factor. *J. Biomol. Struct. Dyn* June 2007. Poster presentation, Albany 2007: The 15th Conversation. Albany, NY, June 2007.

PRESENTATIONS

1. Wrongful Conviction Q&A Panel. Cumberland University. CRJ 498W Special Topics: Wrongful Convictions. Online. April 2023 (Invited speaker)
2. Firearms and Shooting Incident Reconstruction. Shelby County Public Defender's Office. CLE series. December 2022 (Invited speaker)
3. Firearm and Toolmark Identification. Cumberland University. CRJ 421 Forensic Science. Online. September 2022 (Invited speaker)
4. From the Research Lab to the Crime Lab. Vanderbilt University ASPIRE Career Seminar. Nashville, TN. September 2022 (Invited speaker)
5. Firearms and Crime Scene Reconstruction. SEP Forensic Consultants Webinar. Online. February 2022. (Sponsoring speaker)
6. Everything you Never Knew you Needed to Know about Firearms Identification. TACDL Forensic Seminar. Knoxville, TN. June 2020 (Invited speaker)
7. From Crime Scene to Laboratory Report: Understanding Firearms, DNA, and other Forensic Evidence. TACDL Forensic Seminar. Memphis, TN. April 2019 (Invited speaker)
8. Firearms Identification Unit. Vanderbilt University Office of Career Development. Nashville, TN. February 2017. (speaker)
9. Firearms Identification Unit. Shelby County Sheriff's Office. Memphis, TN. June 2016. (speaker)
10. Distinguishing Cartridge Cases Fired in Glock and Smith & Wesson Sigma Pistols by Class Characteristics. AFTE Annual Training Seminar. New Orleans, LA. May 2016. (poster)
11. Firearms Identification Expert Testimony. District Attorney General Conference Trial Advocacy Course. Memphis, TN. March 2016 (speaker)
12. Crime Scene Reconstruction and Firearms Identification. Madison County Sheriff's Office. Jackson, TN. May 2015. (speaker)
13. The Firearms Identification Unit. TLETA City-County School. Donelson, TN. August 2014. (speaker)
14. Shooting Reconstruction and Toolmark Identification. TLETA Advanced Crime Scene Processing School. Donelson, TN. July 2014. (speaker)
15. TBI Crime Scene Response Team Presentation. Germantown Middle School Career Day. Germantown, TN. September 2013. (co-speaker)
16. Keynote Speaker for Nashville State Community College Police Science Academy Session XV Graduation. Nashville, TN. November 2011. (speaker)
17. Firearms Identification Unit. TLETA City-County School. Donelson, TN. October 2011. (speaker)
18. Firearms Identification Unit. Vanderbilt University Careers in the Biological and Biomedical Sciences Symposium. Nashville, TN. July 2010. (speaker)
19. Firearms Identification Unit. Austin Peay State University Forensic Science Lecture. Clarksville, TN. April 2010. (speaker)

TRAINING

05/23	AFTE 2023 Training Conference
04/23	International Ammunition Association International Cartridge Show
03/23	FARO Zone — From Field to Finish Webinar Course
01/23	National Shooting Sports Federation SHOT Show
11/22	AFTE Manufacturing Methods of Glock Pistols Webinar
11/22	Forensics @ NIST 2022 Conference
09/22	Shooting Incident Reconstruction Comprehensive Course
07/22	AFTE 80% Firearms Webinar
06/22	AFTE 2022 Training Conference
04/22	International Ammunition Association International Cartridge Show
11/21	Midwest Firearms Training Seminar

09/21	IAFSM Sketchup 3D Crime Scene Reconstruction Webinar
08/21	AFTE 2021 Training Conference
06/21	ASCLD Train the Director Series - Firearms 3D Technology Course
04/21	CSAFE Statistical Thinking for Forensic Practitioners Short Course
04/21	FARO Crime Reconstruction Workshop
03/21	International Ammunition Association International Cartridge Show
02/21	NIJ Forensic Science R&D Symposium
12/20	Ultra Multi-Caliber Quantitative Analysis Webinar
11/20	Forensics @ NIST 2020 Conference
10/20	SWAFS (Southwestern Association of Forensic Scientists) 2020 Training Conference
05/20	Understanding the Statistics Behind Forensic Conclusions Workshop
02/20	St. Jude/Memphis Police Dept. Active Shooter Training
02/20	NIJ Forensic Science R&D Symposium
05/19	AFTE 2019 Training Conference
05/19	Hi-Point Armorer's Course
04/19	TACDL Forensic Seminar
02/19	Emerging Forensic Research Series: Firearms and Toolmarks Research Course
11/18	Forensics @ NIST 2018 Conference
03/18	International Ammunition Association International Cartridge Show
01/18	A Close Look at 3D Microscopy for Firearms Identification Webinar
08/17	Glock Armorer's Course
05/17	Team One Network Smith & Wesson M&P Armorer's Course
05/17	Team One Network Springfield 1911 Armorer's Course
05/17	AFTE 2017 Training Conference
04/17	International Ammunition Association International Cartridge Show
03/17	TacticaLogic AR-15/M16 Armorer's Course
06/16	AFTE 2016 Training Conference
05/16	ERASE Active Shooter Train-the-Trainer
04/16	ALERT Active Shooter Training
03/16	International Ammunition Association International Cartridge Show
02/16	NIJ 2016 Forensic Science R&D Symposium
01/16	Firearms Identification for Supervisors Training
11/15	Forensic Ammunition Service Training
04/15	FTI BrassTrax HD3D and MatchPoint+ Training
04/15	International Ammunition Association International Cartridge Show
02/15	UND Death Investigator Training
12/14	TBI Firearms Instructor School
05/14	RTI Shooting Reconstruction Course
04/14	International Ammunition Association International Cartridge Show
04/14	Preventing Violence Against Law Enforcement Officers & Ensuring Survivability
04/14	Active Shooter Symposium
02/14	ATF Serial Number Restoration Course
03/13	International Ammunition Association International Cartridge Show
12/12	WVU Shooting Reconstruction Course
10/12	WVU Continuing Education: Toolmark Identification Course
10/12	WVU Continuing Education: Serial Number Restoration Course
08/12	ASCLD/LAB Measurement Confidence 200 Level Course
07/12	ASCLD/LAB Measurement Confidence 100 Level Course
07/12	WVU Crime Scene Investigation Course
07/12	WVU Introduction to Bloodstain Pattern Analysis Course
07/12	WVU Introduction to Firearms and Toolmark Identification Course
05/12	Glock Armorer's Course
05/12	Sig Sauer Armorer's Course
05/12	International Association of Law Enforcement Firearms Instructors Conference
04/12	International Ammunition Association International Cartridge Show
02/12	TBI Crime Scene In-Service Training
01/12	National Shooting Sports Federation SHOT Show
11/11	Edge FX Vista 3D Crime Scene Reconstruction

10/11	New England Firearms Manufacturing Plant Tours
09/11	TBI Firearm and Toolmark Examiner Training
09/11	Colt Armorer's Course
05/11	ATF Integrated Ballistics Identification System Course
01/11	TBI Basic Criminal Investigator School
12/10	FBI Gunshot Residue School
08/10	TBI Crime Scene Processing School

FACTORY/LABORATORY TOURS

05/23	Parabellum Research Ammunition
05/23	Jesse James Firearms Unlimited
09/22	Louisiana State Police Crime Laboratory, Baton Rouge
07/22	Forensic Ammunition Services Inc.
07/22	Michigan State Police Crime Laboratory, Grand Rapids
06/22	G2 Research Ammunition
02/20	CMT Tactical
05/19	Beretta Firearms
08/18	An Garda Síochána, Ireland National Police, Firearms Unit
08/18	Forensic Science Ireland Crime Laboratory
06/18	Israel National Police Headquarters, Firearms Laboratory
04/17	Mueller Industries Copper Tube and Pipe
04/17	Winchester Ammunition
03/17	Tennessee Arms Company
03/17	Tennessee Cartridge Company
03/17	Barrett Firearms Manufacturing
02/17	Mid-South Munitions
12/16	Colorado Bureau of Investigation Crime Laboratory, Aurora
05/16	Arkansas State Crime Laboratory
05/16	Remington Ammunition
03/16	Ruger Precision Metals
11/15	Metro Nashville Crime Laboratory
04/15	St. Louis County Crime Laboratory
08/13	Gerdau Steel Mill
10/11	Mossberg Firearms
10/11	Drill Masters
10/11	Charter Arms
10/11	Wilson Arms
10/11	Lyman Products
10/11	Colt Firearms
10/11	Smith & Wesson
10/11	Savage Arms
10/11	Springfield Armory
10/11	Kahr Arms
10/11	Sturm Ruger
10/11	Remington Firearms
10/11	Harrington & Richardson
10/11	Marlin Firearms
12/10	Lake City Ammunition Plant

PROFESSIONAL ORGANIZATIONS

01/22 - Present	NSSF SHOT Show Safety Advisor
10/21 - Present	Organization of Scientific Area Committees
	<i>Serving on the Firearm and Toolmark Subcommittee</i>
04/21 - Present	Association of Crime Scene Reconstruction
01/13 - Present	International Ammunition Association
02/10 - Present	Association of Firearm and Toolmark Examiners (AFTE)

	<i>Serving on the Board of Directors and the Editorial Committee. Previously served on Electronic Resource Committee and Chair of the Unpublished Research Subcommittee</i>
04/12 – 04/13	International Association of Law Enforcement Firearms Instructors (IALEFI)
10/09 – 01/13	Tennessee Division of International Association for Identification (TN-IAI)
	<i>Served on the Board as Newsletter Editor</i>
2005-2009	Vanderbilt Molecular Biophysics Training Program
2005-2009	Vanderbilt Center of Chemical Biology
2004-2009	Vanderbilt Center for Structural Biology
2003-2006	Howard Hughes Medical Institute Community of Scholars

TEACHING/MENTORING

Special Agent/Forensic Scientist

02/16 – 10/17	Brock Sain
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Graduate Students

01/08 – 03/08	Suraj Adhikary
10/06 – 12/06	Patrick Robertson
10/06 – 12/06	Wes Dulaney
03/06 – 05/06	Amanda Hafer
08/05 – 10/05	Shobhana Gupta

Undergraduate Students

06/06 – 08/06	Abby Stufflebam
06/05 – 08/05	Gary Mak
06/05 – 12/05	Audrey Herrin
06/04 – 08/04	Alexander Page
06/03 – 08/03	Erik Hysinger
06/03 – 08/03	Kristen Henson

Courses

06/23 – 08/23	SOC 411 - Forensic Science Internship, Union University
08/22 – 12/22	SOC 308 - Introduction to Forensic Science, Union University
08/07 – 12/07	BSCI 111 - Biological Sciences Laboratory, Vanderbilt University